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EXPLORING THE ROLE OF SAFETY PERCEPTION AND PERCEIVED RISK IN INFLUENCING VISITORS' INTENTION TO MALAYSIAN THEME PARKS

Zalifah Ahda Dzul Zabarro¹, Aslinda Mohd Shahril^{2*}, Nur Zalikha Othman³

¹Faculty of Hotel and Tourism Management, Universiti Teknologi Mara, Puncak Alam campus, Selangor

 2024478162@student.uitm.edu.my

 <https://orcid.org/0009-0001-8534-6611>


² Faculty of Hotel and Tourism Management, Universiti Teknologi Mara, Puncak Alam campus, Selangor

 aslinda@uitm.edu.my

 <https://orcid.org/0000-0002-8972-0527>

³ Faculty of Hotel and Tourism Management, Universiti Teknologi Mara, Puncak Alam campus, Selangor

 zalkhaothman@uitm.edu.my

 <https://orcid.org/0009-0002-6039-3240>

*Corresponding Author

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Abstract:

This study examines how safety perception and three dimensions of risk: physical, health, and crowd management influence visitors' intention to visit Malaysian theme parks, specifically Sunway Lagoon and Lost World of Tambun. Following the COVID-19 pandemic, safety and health concerns have become critical factors in travel decision-making, particularly for recreational places like theme parks. The study focuses on three key risk dimensions which are physical safety, health safety, and crowd management. It examines how these risks shape visitors' decisions, with particular emphasis on visitor's confidence in the park safety measures. Data were collected from 115 respondents using a structured questionnaire measured on a five-point Likert scale. The questionnaires were distributed online and onsite to obtain a diverse range of respondents. The data were analysed using Statistical Package for the Social Sciences (SPSS) to examine the relationships between safety perception, the three risk dimensions, and visit intention. The findings revealed that a strong sense of safety and effective health measures increased visitors' likelihood to visit, whereas concerns about physical risks reduced the likelihood. Crowd-related risks demonstrated a comparatively weaker effect, with younger visitors often viewing crowds as an exciting part of the experience rather than a deterrent. These results provide valuable insights for theme park managers to enhance visitor trust and improve safety measures, particularly in the post-pandemic era.

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Safety Perception, Perceived Risk, Theme Parks, Visit Intention,
Health Safety, Crowd Management, Physical Risk.



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Introduction

In recent years, tourism has grown rapidly and has become a significant part of the global economy (Bai et al., 2023), connecting various sectors, including hospitality, transportation, retail, and culture (Encyclopedia, 2023). Tourism plays a key role in promoting sustainable growth, supporting both economic and social development across many regions globally. Before the COVID-19 pandemic, tourism had been steadily growing as more people were eager to explore new destinations each year (Khan et al., 2020). However, the pandemic disrupted this growth, with borders closing, flights being cancelled, and millions of travellers staying home due to safety concerns (Koopmans, 2020). According to UNWTO (2021), global tourism experienced a sharp decline of 74% in 2020 compared to the previous year, highlighting the vulnerability of the industry. This downturn not only harmed global economies but also altered the way individuals perceive travel. Safety and health have now become top priorities for tourists, influencing their travel decisions more than ever before (Ma et al., 2020)

In Asia, tourism has become a vital part of the economy, attracting millions of local and international visitors with its rich culture, scenic landscapes, and vibrant cities (Baum & Hai, 2020). The region was hit hardest by the pandemic, experiencing a dramatic 64% drop in tourist arrivals in March 2020 (UNWTO, 2020). Despite these challenges, many Asian countries are recovering by focusing on domestic tourism and implementing strict health protocols to restore visitors' confidence (Volgger et al., 2021). This shift in focus has influenced the way tourism businesses operate, with an increased emphasis on safety measures, shaping tourists' decisions on where to visit.

In Malaysia, tourism remains a significant contributor to the economy, with the country welcoming millions of visitors each year (Kumar & Hussain, 2022). Theme parks in Malaysia have become a rapidly growing segment of the tourism industry, particularly popular among families, young people, and thrill-seekers (Ong et al., 2024). These parks provide entertainment and play a crucial role in boosting the local economy (Benítez, 2024). The number of theme parks and water parks in Malaysia continues to rise, with over twenty parks currently in operation, and more planned for the future (Razaka et al., 2020). As the competition among theme parks intensifies, park operators are continuously improving their offerings to enhance the visitor experience and satisfaction (Rashyida & Sobirov, 2022).



Figure 1: Selected Malaysian Theme Parks: Sunway Lagoon and Lost World of Tambun

Source: Adapted from publicly available online sources.

However, in the post-pandemic era, the high visitor turnover and growing concerns over safety have made theme parks an ideal setting for studying changes in tourist behaviour (Mellinas et al., 2022). Safety perception plays a critical role in shaping tourists' decisions to visit a destination, as it reflects visitors' evaluation of safety conditions (Xie et al., 2020). In addition, perceived risk significantly influences behavioural intention, as travellers assess potential uncertainties before making travel decisions (Caber et al., 2020). Therefore, this study aims to examine how safety perception and perceived risk influence visitors' intention to visit Malaysian theme parks, while contributing to the development of safer tourism environments.

This study contributes to the tourism literature by examining how safety perception and perceived risk influence visitors' intention to visit Malaysian theme parks. To better understand this relationship, the following section reviews relevant literature on safety perception, perceived risk and visit intention.

Literature Review

Safety Perception of Tourists at Theme Park

Safety perception is how visitors evaluate the safety measures at a destination, including both physical aspects, like safety features, and psychological aspects, like the sense of security they perceive (Zou & Yu, 2022). This perception greatly affects tourists' decisions to visit theme parks, especially in the post-pandemic era when health concerns were more prominent. Viet et al. (2020) and Zou and Yu (2022) indicated that clear safety measures, such as visible staff, sanitation stations, and crowd management, are essential for boosting visitor confidence and improving overall experience.

Yiliu et al. (2020) point out that safety perceptions are influenced not only by direct safety measures but also by indirect factors like the tone of promotional materials, staff behaviour, and the overall atmosphere of the park. Both Yiliu et al. (2020) and Zou and Yu (2022) agree that how safety is communicated and experienced by visitors through the park's atmosphere and mood is just as essential as the physical safety measures.

However, Perpina et al. (2020) and Shi et al. (2022) argue against the idea that safety perception is the most crucial factor in decision-making. They suggest that emotional and social factors like personal connections, recommendations from friends, and social media reviews can sometimes be more influential than safety concerns. This contrasts with the findings of Zou and Yu (2022) and Viet et al. (2020), who believe that safety perceptions are a key factor in deciding to visit theme parks. These differing views indicate that while safety is important, emotional and social factors also play a role in decision-making.

These gaps were addressed by examining both physical and psychological factors that influence safety perceptions. Trust, anxiety, and emotional comfort were investigated in how they affect tourists' decisions to visit theme parks. Based on the preceding discussion, safety perception was expected to influence visitors' intention to visit theme parks. Therefore, the following hypothesis was proposed:

H1: There is a significant relationship between safety perception and visitor intention in the theme park.

Perceive Risk of Health at Theme Park

Perceived health risk refers to tourists' concerns about contracting infectious diseases, encountering poor sanitation, or facing hygiene issues, especially in crowded places like theme parks (Hamid et al., 2021). Since the COVID-19 pandemic, health risks have become a key focus in tourism research, as travellers are now more aware of disease transmission and health-related practices. Studies by Alam et al. (2020) and Vărzaru et al. (2021) indicate that high perceived health risks often deter visits to destinations that lack clear health protocols.

However, Gstaettner et al. (2021) suggest that awareness of health risks does not always lead to avoidance. Instead, when effective safety measures are in place, such as sanitation stations and clear health protocols, awareness of health risks can boost visitors' confidence and their intention to visit.

Lee and Kim (2023) elaborate on this by demonstrating that tourists in countries with high trust in healthcare systems, such as South Korea and Singapore, are more willing to accept certain health risks when they believe the environment is well-managed.

While current research emphasises physical health risks, there is a significant gap in exploring psychological factors such as fear, trust, and emotional responses to safety measures. These factors are crucial in shaping how tourists perceive health risks but are frequently neglected. For example, while Gstaettner et al. (2021) stress the importance of visible safety measures, they do not adequately address the role of emotional comfort and trust in staff.

This study aims to address these gaps by examining the psychological factors related to perceived health risks, particularly focusing on trust and emotional responses to safety measures. It will also contribute to enhancing safety management strategies in theme parks by incorporating both physical and psychological factors that affect health perceptions in the post-pandemic context. Given the increasing importance of health concerns in tourism, perceived health risk is expected to influence visit intention. Therefore, this study proposes the following hypothesis:

H2: There is a significant relationship between perceived health risk and visitor intention in the theme park.

Perceive Risk of Physical Activity at Theme Park

Physical risk refers to tourists' concerns about possible injuries or accidents caused by malfunctioning rides, poor maintenance, or insufficient supervision at theme parks (Gregson & Quinlan, 2024). Since theme parks feature fast paced and intense rides, managing physical risks is essential to ensure visitors' safety and satisfaction. Research by Saputri et al. (2025) and Sepawi (2023) emphasises that clear safety regulations, well-trained staff, and visible maintenance procedures help reduce visitors' anxiety and build trust in the park's risk management.

Chin et al. (2023) highlights that younger visitors may identified environments that appear too safe to be uninteresting or artificial. This implies that perceived physical risk contributes to enjoyment for some groups, while Saputri et al. (2025) emphasise that visible safety measures alleviate anxiety, especially for families and older visitors who prioritise safety. Bayang et al. (2023) also mention that attraction of theme rides influences visitors' intention to visit the theme park.

This study aims to fill these gaps by examining how concerns about physical risks, such as injury, equipment safety, and ride maintenance, influence visitors' perceptions and their intention to visit theme parks. The findings will provide valuable guidance for park operators on designing experiences that are both safe and engaging, catering to a broad range of visitors, including families, thrill-seekers, and older adults. Perceived physical risk is also expected to influence visitors' intention, as concerns about safety may affect participation in theme park activities. Therefore, this study proposes the following hypothesis:

H3: There is a significant relationship between perceived physical risk and visitor intention in the theme park.

Perceived Risk of Crowd Management in Theme Park

Crowd management is how well a place controls the movement and safety of its visitors, especially during busy times (Modderman, 2021). Perceived crowd management includes not just being physically crowded but also feeling uncomfortable, losing personal space, and having trouble keeping clean or finding emergency exits. After the COVID-19 pandemic, worries about crowd-related risks have increased. Tourists are now more careful about being in crowded places, especially indoors (Stylidis et al., 2020). This change has affected how visitors see the safety and appeal of theme parks. Many studies indicate that effective crowd management makes visitors feel safer and happier. Bayang et al. (2022) say that effective crowd control, like clear signs, staff presence, and smooth visitor flow, helps reduce perceived risks and improve comfort. These studies suggest that well-managed crowds can make the overall experience better. However, research by Luo et al. (2025) indicates that visitors from collectivist cultures or busy cities may see crowds as part of the fun atmosphere of the theme park.

On the other hand, Ding et al. (2023) argue that overly complicated crowd management systems, like digital queues or fixed paths, can take away from the theme park experience. Visitors might feel more controlled than cared for, especially if they visit often. This view is different from Bayang et al. (2022), who focus on the benefits of organised crowd management. These differing opinions suggest that while effective crowd management is important, too much control can reduce the excitement and freedom that visitors want, especially for those who visit frequently.

This study fills these gaps by looking at the psychological aspects of crowd risk perception. It will examine how emotional responses like stress and fear shape visitors' views on crowd management. Similarly, perceived crowd risk is expected to affect visitors' intention to visit theme parks. Therefore, it led to the following hypothesis:

H4: There is a significant relationship between perceived crowd risk and visitor intention in the theme park.

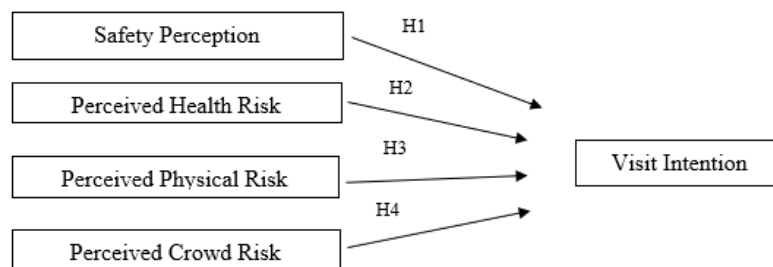


Figure 2: Study Framework Adapted from Rahim and Ahmad (2023)

Methodology

This study aimed to explore the relationship between safety perception, perceived risks, and visitors' intention to visit theme parks in Malaysia. A quantitative research approach with a descriptive design was used, utilising a questionnaire to collect numerical data from a large sample. This approach enables a systematic examination of the relationships between safety perception, perceived risks, and visitors' intention to visit.

The study gathered data from actual visitors using a cross-sectional approach. A non-contrived field setting was chosen, where a self-administered survey was conducted at popular theme parks, Sunway Lagoon and Lost World of Tambun. Both theme parks were selected because they are among the most visited theme parks in Malaysia. Their high and diverse visitor traffic increases the likelihood of obtaining a sufficient and heterogeneous sample, improving the generalizability of the findings. Questionnaires were selected as the preferred method due to their efficiency in collecting large volumes of data.

The sample comprised 115 respondents, selected through convenience sampling. Participants, aged 18-45, had either visited or planned to visit these parks. The sample included a range of individuals, such as mature students, leisure travellers, business travellers, and self-employed individuals, ensuring diversity within the sample population. Convenience sampling was chosen for its practicality in reaching accessible participants and ensuring a sufficient sample size for analysis.

Research Instrumentation

The items in Sections B and C were adapted from established scales, which were Section B from Pan et al. (2022), Section C for physical risk from Bayang et al. (2022), health risk from Wang Yiguo & Albattat Ahmad (2024) and Khan et al. (2020), crowd management from Yoo & Kim (2019) and Jin et al. (2016). For section D, which was the visit intention to the theme park, adapted from Zhang et al. (2020) and Gavurova et al. (2023). This questionnaire was modified to suit the specific context of this study on theme parks in Malaysia. For instance, wording changes were made to ensure relevance to the target population. Respondents used a 5-point Likert scale to rank their perceptions, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. This scale is widely used to measure the degree of respondents' agreement with each statement. Reliability analysis was conducted using Cronbach's alpha to assess the internal consistency of the measurement items

Data Collection Process

Data collection was conducted over three months from August to November 2025, encompassing recruitment, pilot testing, and survey administration. The target respondents were individuals aged 18–45 who had visited or intended to visit Malaysian theme parks, specifically Sunway Lagoon and Lost World of Tambun. Respondents were eligible if they had previously visited either theme park or planned to visit in the near future. The required sample size was determined using G*Power software to ensure adequate statistical power for regression analysis.

A non-probability convenience sampling technique was employed due to the accessibility of theme park visitors and practical time constraints. The questionnaire was administered via Google Forms using two distribution methods: (1) on-site recruitment and (2) online distribution. For on-site recruitment, the researcher visited Sunway Lagoon and Lost World of Tambun on selected weekends and public holidays in September and October 2025. Visitors were approached in common areas such as entrance gates, rest areas, and queue lines. After a brief explanation of the study, consenting respondents completed the survey by scanning a QR code with their mobile devices, which directed them to the Google Form questionnaire. The self-administered survey took approximately 5–10 minutes to complete, with no structured interviews conducted.

For online distribution, the same Google Form link was shared via WhatsApp, email, and social media platforms, targeting individuals who had visited or planned to visit the selected theme parks. A pre-test ($n = 5$) was conducted to enhance questionnaire clarity, followed by a pilot test ($n = 35$) to assess reliability. Following revisions, the final survey yielded 115 valid responses. Data was analysed using (SPSS), applying descriptive and inferential statistical techniques to examine relationships between the variables.

Data Analysis

The data analysis for this study was conducted using SPSS software, a widely recognised statistical tool known for its efficiency in handling large datasets and robust statistical capabilities (Rahman & Muktadir, 2021). Initial assumption checks, including normality tests (Skewness and Kurtosis), were performed to ensure the validity of the data. Descriptive statistics were used to

summarise respondents' demographic characteristics, such as age, gender, income, marital status, education, and frequency of theme park visits.

Pearson's correlation analysis was conducted to examine the relationship between safety perception and visit intention. Additionally, multiple regression analysis was performed to assess the impact of perceived risk (physical, health and crowd) on visit intention.

In conclusion, the analysis provided empirical evidence on the relationship between the variables.

Demographic Profile

This section presents the demographic profile of the respondents, including gender, age, monthly income, marital status, and the frequency of theme parks visit. This table demonstrates the data from the demographic profile.

Table 1: Respondent Demographic Profile

Demographic		Frequency (n)	Percentage (%)
<u>Gender</u>	Male	23	20
	Female	92	80
<u>Age</u>	Below 20	56	48.7
	21 - 30	47	40.9
	31 - 40	11	9.6
	41 - 50	1	0.9
<u>Monthly Income</u>	Less than RM1,000	73	63.5
	RM 1,001 – RM 3,000	27	23.5
	RM 3,001 – RM 5,000	11	9.6
	Above RM 5,000	4	3.5
<u>Marital Status</u>	Single	96	81.5
	Married	19	18.5
	Divorced	0	0
<u>How often do you visit a theme park?</u>	Never	12	10.4
	Sometimes (1-3 a year)	102	88.7
	Often (Once a week or more)	1	0.9
	Very often (almost daily)	0	0

(N=115) Source: Authors' calculation

Descriptive Analysis

Descriptive statistics summarised the distribution of four key risk factors, safety perception, physical risk, health risk, and crowd risk, as well as visit intention. This approach provides an overview of the data, helping to spot areas for better theme park management and visitor safety. Descriptive analysis promotes clarity, accuracy, and useful insights into what affects visitor behaviour.

The variables were measured on a five-point Likert scale, with 1 meaning strong disagreement and 5 meaning strong agreement. The average scores (means) were Safety Perception (2.60), Physical Risk (3.37), Health Risk (3.56), Crowd Risk (3.51), and Visit Intention (3.44). The standard deviations were: 0.89 for Safety Perception, 1.00 for Physical Risk, 0.88 for Health Risk, 0.84 for Crowd Risk, and 0.76 for Visit Intention.

Table 2: Descriptive Statistics of Variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Safety Perception	115	1.00	5.00	2.5965	0.89167
Physical Risk	115	1.00	5.00	3.3652	0.99798
Health Risk	115	1.40	5.00	3.5617	0.88015
Crowd Risk	115	1.00	5.00	3.5096	0.83907
Visit Intention	115	1.20	5.00	3.4417	0.76250

Inferential Analysis

Inferential analysis is a set of techniques for estimating population attributes and determining if patterns or relationships exist (Janczyk & Pfister, 2023). Inferential statistics is a group of tests that facilitate researchers conclude their sample data. These tests can be split into three main types based on what researchers aim to do, like checking for differences, looking at connections, and making predictions.

Based on a representative sample, conclusions about the population are derived in inferential statistics. After collecting the data, it is sorted and summarised, and then inferential statistics may be used to examine the data, conclude, and make judgments.

This study applied a series of statistical methods to evaluate the reliability of the variables. Reliability tests have been used to check the consistency of constructs such as safety perception, perceived risk of physical health, and crowd visit intention. Correlation analysis was used to detect multicollinearity between safety perception and visit intention. Finally, multivariate analysis tested the hypotheses.

Normality Test

A normality test was conducted to determine whether the sample data followed a normal distribution (Tsagris & Pandis, 2021). The skewness and kurtosis test was used, as it is a common statistical tool for assessing deviations from normality (Lapidot, 2020). In this study, the skewness values ranged from -0.587 to 0.435, indicating that the data were roughly

symmetric and did not deviate significantly from normality. The kurtosis values ranged from -0.652 to 0.098, suggesting that the data were within the acceptable range for a normal distribution, as values between -3 and 3 are considered typical (Busse & Jelly, 2023). The sample size of 115 respondents was deemed sufficient for reliable and meaningful statistical analysis.

Table 3: Normality Test

N Statistic		Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
Safety Perception	115	0.435	0.226	0.025	0.447
Perceived Physical Risk	115	-0.338	0.226	-0.652	0.447
Perceived Health Risk	115	-0.587	0.226	-0.377	0.447
Perceived Crowd Risk	115	-0.438	0.226	0.098	0.447
Visit Intention	115	-0.004	0.226	0.038	0.447

Reliability Test

Each section of the questionnaire was examined separately. Reliability analysis was conducted to assess the internal consistency of the measurement items.

The result indicates acceptable to excellent internal consistency. Safety Perception ($\alpha = 0.884$) and Visit Intention ($\alpha = 0.866$) both achieved "Good" reliability, while Perceived Risk Physical ($\alpha = 0.930$) reached "Excellent" levels. Perceived Risk of Health ($\alpha = 0.857$) also fell in the "Good" range. Perceive Risk of Crowd indicate "Acceptable" reliability at $\alpha = 0.725$, which remains suitable for social science research where values above 0.7 are typically considered adequate. All constructs used five items and met standard thresholds for robust measurement, supporting their use in subsequent analyses. Table 4.4 lists the findings of the reliability test.

Table 4: Reliability Analysis

Section	Cronbach alpha	No of item	Interpretation
a) Safety Perception	0.884	5	Good
b) Perceived Risk Physical	0.930	5	Excellent
c) Perceived Risk of Health	0.857	5	Good
d) Perceive Risk of Crowd	0.725	5	Acceptable
e) Visit Intention	0.866	5	Good

Correlation Analysis

Pearson correlation was used to examine the linear relationship between safety perception and visit intention, testing Hypothesis H1: "There is a significant relationship between safety perception and visitor intention in the theme park." The results indicated a statistically significant moderate positive correlation ($r = 0.279$, $p = 0.002$, $N = 115$), indicating that as safety perception increases, the intention to visit the theme park also increases. The p-value of

0.002 confirms the significance of this relationship at the 0.01 level. With an $r^2 \approx$ of 0.078, safety perception explained 7.8% of the variance in visit intention. This suggests that while safety perception influences visit intention, other factors also play a role. The results support Hypothesis H1, confirming the moderate positive relationship between safety perception and visit intention.

Table 5: Pearson Correlation

		Safety Perception	Visit Intention
Safety Perception	Pearson Correlation	1	0.279**
	Sig. (2-tailed)		0.002
	N	115	115
Visit Intention	Pearson Correlation	0.279**	1
	Sig. (2-tailed)	0.002	
	N	115	115

** . Correlation is significant at the 0.01 level (2-tailed).

Multivariate Analysis

Multivariate analysis, which involves examining multiple variables simultaneously, was used to assess the significance of the relationships between Crowd Risk, Physical Risk, Health Risk, and Visit Intention. An Analysis of Variance (ANOVA) was conducted, revealing that the variables had a statistically significant impact on Visit Intention ($F = 3.456$, $p = 0.019$). This indicates that at least one of the independent variables. Crowd Risk, Physical Risk, or Health Risk significantly influence the intention to visit the theme park. These findings support the hypothesis that the perceived risks affect visitors' decision-making.

Table 6: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.662	3	1.887	3.456	.019 ^b
	Residual	60.618	111	.546		
	Total	66.280	114			

a. Dependent Variable: Visit intention

b. Predictors: (Constant), Crowd, Physical, Health

The findings indicated that Health Risk, Physical Risk, and Crowd Risk together explain 8.5% of the variation in Visit Intention ($R^2 = 0.085$). The Adjusted R^2 of 0.061 indicates 6.1% explanatory power after accounting for the number of predictors. With a Standard Error of 0.73899, the model's predictions are moderately accurate but reveal that over 90% of visit intention variance comes from other unmeasured factors. This limited explanatory power suggests future studies should include additional variables to better predict theme park visitation behaviour. The detailed results are presented in Table 4.4.4.2.

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.292 ^a	.085	.061	.73899

a. Predictors: (Constant), Crowd, Physical Risk, Health Risk

The multiple regression analysis partially supported the research hypotheses. A significant positive relationship was found between perceived health risk and visit intention (coefficient = 0.295, $t = 2.806$, $p = 0.006$), strongly supporting Hypothesis H2. Conversely, a significant negative relationship was observed between perceived physical risk and visit intention (coefficient = -0.184, $t = -2.046$, $p = 0.043$), confirming Hypothesis H3. However, the analysis indicated a weak positive relationship between crowd risk and visit intention (coefficient = 0.159, $t = 1.464$, $p = 0.146$), but this was not statistically significant, meaning Hypothesis H4 was not supported. Overall, the findings indicate that physical and health risks significantly influence visitors' intention to visit theme parks, while crowd risk does not have a significant impact.

Table 8: Regression Analysis

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.621	0.592		4.424	<.001
	Health	0.295	0.105	0.340	2.806	0.006
	Physical	-0.184	0.090	-0.241	-2.046	0.043
	Crowd	0.159	0.108	0.173	1.464	0.146

Dependent Variable: Visit Intention

Discussion

The following discussion interprets the findings in relation to research objectives and existing literature. The research questions were formulated based on these objectives: How does safety perception affect visitors' intention to visit theme parks? How do different types of perceived risk (physical, health, or crowd management) influence visitors' decision-making?

To answer these questions, the study applied Pearson correlation to explore the relationship between safety perception and visit intention. Additionally, regression analysis was used to examine how the three types of perceived risks (health, physical, and crowd) impact visitors' decisions. The analyses focused on the statistical significance and strength of these relationships, providing insights into the factors that influence visitors' choices at theme parks, specifically Sunway Lagoon and Lost World of Tambun.

To Examine the Influence of Safety Perception on The Intention to Visit Theme Parks.

The findings indicate that higher levels of safety perception are associated with increased willingness to visit theme parks, suggesting a positive influence on visit intention. The positive correlation corresponds with risk perception theory, which suggests that individual are more

likely to participate in activities they perceive as safe. Though the relationship is moderately intense, its significance validates that safety perception is a vital component in influencing visit intentions, even if not the only one.

This aligns with the study by Xie et al. (2020), who also highlighted that safety perception is important in shaping visitor behaviour. In addition to safety perception, perceived health risk also plays a significant role in influencing visitors' intention. According to Brás (2024), tourists' perceptions of safety also have a significant impact on their visit intention as people visit a destination that perceives safe, get good word-of-mouth from people, lead to repeat trips, and makes the place more appealing overall. This supports the idea that safety is a key part of tourists' decision-making, and it matches the results of this study.

From a managerial perspective, the findings provide practical insights for theme park operators in improving safety strategies and enhancing visitor confidence. Therefore, theme park management should focus on improving safety perception by implementing personalised safety messaging. By using mobile apps or tailored notifications, parks can share safety measures directly with visitors based on their needs or concerns. For instance, families with young children could get messages about ride safety for kids, while regular visitors might learn about new safety rules in the park. This approach makes visitors feel valued, addresses their specific worries, and builds an emotional bond. It demonstrates the park cares about their safety and communicates it in a relevant way by boosting confidence and the desire to visit and return.

To Investigate the Effect of Different Types of Perceived Risk (Physical, Health, Crowd Management) On Intention to Visit Theme Parks.

The second objective of this study was to examine the relationship between different types of perceived risk, which are physical, health, and crowd management, and visitors' intention to visit theme parks. The results reveal a significant positive relationship between perceived health risk and visit intention, indicating that higher awareness of health-related risks is associated with increased intention to visit. This suggests that health safety measures play a crucial role in visitors' decisions to visit theme parks, particularly Sunway Lagoon and Lost World of Tambun. Visitors are more likely to visit parks if they believe health risks are well-managed. Previous studies (Bonfanti et al., 2023) confirm that strict health measures boost visitors' confidence and comfort, making theme parks more appealing. This aligns with the post-pandemic shift in risk tolerance, where visitors have become more accustomed to health risks and developed coping mechanisms (Humagain & Singleton, 2021).

Furthermore, visitors' selective risk perception influences their decision to visit, as they may ignore certain health risks in favour of the experience or to regain a sense of normalcy (Seong & Hong, 2021). Given these findings, theme parks should focus on building visitor trust through clear communication of health safety measures. Emphasising transparency and offering testimonials or expert endorsements can further enhance visitors' confidence, which will likely increase their intention to visit.

Similarly, perceived physical risk was found to significantly influence visitors' decision-making. This study found a significant negative relationship between perceived physical risk and visit intention, indicating that higher levels of perceived physical risk reduce visitors' willingness to visit theme parks. This aligns with Bonfanti et al. (2023), who noted that people

tend to avoid activities they perceive as physically risky, especially in environments like theme parks, where injury risks may be higher. Physical risk is often viewed as an uncontrollable factor, unlike health risks, which can be managed through hygiene measures (Ellmers et al., 2023). The immediate and tangible nature of physical risk, tied directly to rides and attractions, contributes to visitors' concerns about safety, even when safety protocols are in place. Despite the attractions and excitement theme parks offer, the fear of physical injury can deter visitors, particularly those who prioritise safety.

To address this concern and enhance visit intention, theme parks could consider implementing Augmented Reality (AR) safety previews. This technology would provide visual and interactive experience for visitors, showcasing safety protocols, ride operations, and emergency procedures before they participate. This proactive approach can help reduce anxiety, increase visitors' sense of control over their safety, and ultimately build trust and confidence, especially for those concerned about physical risks but still eager to enjoy the attractions.

The findings indicate that perceived crowd risk has a comparatively weaker effect on visitors' intention to visit theme parks, which does not fully align with previous literature suggesting that crowd management is critical for visitors' comfort and safety (Stylidis et al., 2020). Interestingly, this study reveals that crowding is often perceived as a normal and manageable part of the experience, particularly by younger visitors. These visitors tend to associate crowds with popularity and excitement rather than as a deterrent (Luo et al., 2025). For them, large crowds indicate a popular and engaging destination (Sanz-Blas et al., 2024).

As a result, crowding may not be a significant barrier to visiting theme parks, especially for those seeking social experiences. However, to improve the experience for all visitors, theme parks could introduce "Crowd-Reduced Zones" to offer quieter areas with less congestion. Using app-guided paths to unique attractions or providing priority access to reduce waiting times could enhance comfort and satisfaction, especially for those seeking a more relaxed visit. In summary, health risk emerged as the strongest predictor of visit intention. Visitors are more likely to visit theme parks when they perceive health safety measures to be well-implemented and effectively managed, particularly in the post-COVID-19 era. Physical risk was identified as the second most influential factor, as visitors tend to be cautious about potential injuries from rides, reflecting general risk aversion. In contrast, perceived crowd risk demonstrated a comparatively weaker effect, as many visitors tolerate crowds for the fun and social atmosphere, with parks addressing this through measures such as timed entries or virtual queues. Overall, the findings highlight that health and physical risks play a more significant role than crowd risk in shaping visitors' decision-making, emphasizing the importance of safety and well-being in theme park choices.

Limitation of The Study

The present study faced several limitations that need to be addressed by future researchers. Firstly, it focused on visitors aged 18-45 at two theme parks in Malaysia, which may not represent other groups like older adults, families, or international tourists. Secondly, the study focused on only three types of risk, which are physical, health, and crowd management, while excluding other potential factors such as financial or emotional risks. Mental factors, such as fear or trust in safety measures, were also not considered, though they were briefly acknowledged, but were not the focus of the study.

Recommendations

First, as this study focused on visitors aged 18-45 at two theme parks in Malaysia, future researchers should include a wider range of participants, such as older adults, families with young children, and international tourists, to improve the generalizability of the findings. Second, expand the types of risks examined by including factors like financial risks (e.g., ticket prices, travel costs) and emotional risks (e.g., fears related to rides). Third, explore psychological factors such as worry, fear, and trust in safety measures, using methods like extended surveys or interviews to gain deeper insights into how these affect visitors' decisions. These steps will provide a more comprehensive understanding of the factors that influence visitors' choices and help theme park managers improve safety measures and the visitor experience.

Conclusion

This study was conducted to explore the factors influencing visitors' intention to visit theme parks in Malaysia, focusing on safety perception and perceived risks. From a theoretical perspective, this study provides empirical evidence on the role of safety perception and perceived risk in influencing visitors' intention. From a managerial perspective, the findings offer practical guidance for theme park operators to improve safety management and build visitor trust

This study also emphasises the growing role that safety plays in shaping tourism decisions, particularly in the post-COVID-19 era. By understanding these factors, theme park operators can improve their services, enhance visitor experience, and stay competitive. The insights gained from this research can guide strategic planning, helping theme park managers allocate resources efficiently and implement measures that address visitors' concerns. Ultimately, these improvements will contribute to the long-term success and sustainability of theme parks in Malaysia.

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