



ANALYSING DESTINATION IMAGE UNDER HEALTH RISKS IN THE POST-COVID-19 ERA IN UGANDA

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Abstract

After COVID-19, health risks have increasingly influenced tourists' perceptions of destinations, yet research on risks remains limited in emerging tourism markets. This study, mainly guided by the Risk Perception Theory, Protection Motivation Theory and the Cognitive-Affection framework, examined how health risks (disease, food safety, and road accidents) influence destination image in Uganda. A quantitative approach employing PLS-SEM was used to analyse data from 384 international tourists collected via a self-administered questionnaire. The results indicated that only disease risk had a statistically significant influence on destination image, though the effect size was small and the predictive power limited. This suggests that in Uganda, destination perceptions may be influenced more by factors such as tourist attractions and tour experiences than by health risks, thereby contributing to the literature on post-pandemic travel normalisation. Therefore, destination marketing should focus on promoting Uganda's unique attractions, while also prioritising the management of perceived health risks.

Keywords: Destination Image, Disease Risk, Food Risk, Road Accident Risk, Uganda

INTRODUCTION

Tourism is a vital sector for many countries, as visitors significantly contribute to a nation's economic growth and quality of life. The number and origin of tourists arriving at a destination often reflect the attractiveness, image, popularity and competitiveness of a nation's tourism sector. Consequently, building and maintaining a destination image has become a strategic goal for policymakers and tourism service providers in most destinations. A good destination image is necessary to inspire and attract more tourists, which is crucial for generating tourism revenue (Crames et al., 2023). Furthermore, a destination's positive image enhances its reputation among tourists through positive word-of-mouth promotion on platforms such as social media, thereby lowering marketing and advertising costs (Abbasi et al., 2024). Moreover, a good image is not only a precursor to attracting tourists to a destination, but it also leads to loyal tourists who may spend more and encourage others to explore the destination.

Additionally, a positive image fosters trust among visitors, thereby increasing their likelihood of recommending the destination to friends, family, and colleagues, encouraging others in their social circles to visit and experience trusted destinations themselves (Crames et al., 2023). It is easy and common for tourists to share exciting, positive post-visit experiences of destinations with strong images, rather than negative ones. By doing this, they serve as destination ambassadors, further promoting the destination with a positive image. According to González-Reverté et al. (2025), the loyalty of tourists towards destinations they cherish can be assessed through positive recommendations and emotional connections to these destinations. Therefore, a positive destination image can yield long-term economic benefits, including job creation, which are crucial for resilience and growth in the highly competitive global tourism landscape (Osman et al., 2025; Liu et al., 2025).

In the post-COVID-19 era, there has been increased awareness of health risks as potential threats

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to tourists' well-being while travelling (Crames et al., 2023). Due to this increased awareness, destinations perceived as high risk may see declines in visitation and loyalty. Even when travel occurs, these high-risk perceptions can negatively affect the destination's image, creating lasting negative impressions in travellers' minds that may affect tourist loyalty intentions (Naeem et al., 2023). Therefore, perceived health risk can affect the overall destination image, which can manifest as cognitive (perceptions of attractions) and affective (emotional and feelings) responses to destination anxiety (Abbasi et al., 2024). This means that a positive destination image can lessen the adverse effects of perceived risks by fostering favourable evaluations and emotional connections. Conversely, a negative image intensified by health concerns of fear, worry, and anxiety can diminish destination trust and lower revisit and advocacy intentions. Therefore, destination image is crucial in translating health risk perceptions into loyalty behaviours. In tourism, especially in Africa, where the disease burden is high, and health systems are sometimes inadequate, perceived health risks are often more pronounced among tourists because tourism services are intangible and affected greatly by tour experience, and therefore, tourists tend to rely heavily on subjective assessments of perceived risks, safety and security when forming impressions of destinations.

Uganda is well-known for its green natural beauty, diverse wildlife, and rich cultural heritage. Home to Mt Rwenzori and Lake Victoria, it features tropical rainforests and the Nile River. Key attractions include gorilla trekking, birding, game drives, and various adventure activities, making it a top tourist destination in East Africa. Before the COVID-19 pandemic, Uganda's tourism sector was thriving,

attracting over 1.5 million international tourists in 2019, making it a key source of foreign exchange (Ministry of Tourism, Wildlife and Antiquities, 2020). However, the pandemic severely impacted tourism, with arrivals dropping to approximately 473,085 in 2020, a decline of around 69.3% due to travellers' fear, global travel restrictions, and lockdowns (Nabukeera, 2022). Following the reopening, Uganda's tourism recovered significantly, welcoming 1,371,895 tourists in 2024, a 7.7% increase from 2023 and about 89.2% of pre-pandemic levels (Uganda Bureau of Standards [UBOS], 2025). Nonetheless, Uganda still trails behind its regional counterparts, with Kenya receiving over 2.39 million tourists and Tanzania around 2.14 million in 2024 (Tourism Research Institute, 2025).

With regard to risks, tourists visiting Uganda may be exposed to health risks such as malaria and sometimes Ebola virus disease (Agaba et al., 2024; Fowler et al., 2024; Izudi et al., 2023), risks related to food safety due to poor hygiene and contamination of foods (Koumassa et al., 2025), and increased risks of road accidents (Atalay et al., 2025). Apart from the mentioned health-related risks, tourists in Uganda are likely to experience additional problems, including conflicts between humans and animals, environmental threats such as excessive rainfall and flooding, and insecurity, especially in those protected areas that border the eastern part of the Democratic Republic of Congo (DRC), and petty crimes (Muresherwa et al., 2022; Weeden & Pamment, 2024). Previous research conducted in Uganda has addressed tourism development, wildlife tourism, transport infrastructure, safety, public health, and tourists' experiences (see, e.g., Muresherwa et al., 2022; Nannono et al., 2023). Nevertheless, to date, no research has addressed tourists' views on health risks, i.e., disease, food safety, and road accidents, and their implications for the



formation of tourists' images of destinations. Thus, there seems to be an empirical gap in Ugandan tourism studies. On the other hand, a theoretical gap also exists, as most Ugandan studies on tourism have focused mainly on tourism-related problems, namely, tourism development and management approaches. Again, integrated tourism risk theories, such as Risk Perception Theory (RPT), Protection Motivation Theory (PMT), and Cognitive Appraisal Theory (CAT), have not been applied extensively in Ugandan tourism research yet. This study, therefore, attempts to fill the identified empirical and theoretical gaps by examining the effect of perceived health risk on destination image in Uganda.

LITERATURE REVIEW

Theoretical Review

The theories used in this study were the Cognitive Appraisal Theory (CAT), the Protection Motivation Theory (PMT) (Rogers, 1983) and Risk Perception Theory (RPT). According to CAT, individuals cognitively appraise environmental stimuli, leading to emotional reactions that inform their attitudes and perceptions. In tourism, cognitive evaluation involves assessing destination attributes and associated risks, thereby creating destination images (Baloglu & McCleary, 1999). For instance, tourists visiting Uganda may cognitively evaluate potential health risks associated with disease outbreaks, food safety issues, and road safety concerns. Additionally, PMT emphasises the need to understand two appraisal mechanisms: threat appraisal, in which the level of risk and vulnerability is assessed, and coping appraisal, which evaluates the efficacy of protection measures. Although PMT is concerned with coping appraisal, the current study focused on threat appraisal, as it helps assess tourists' risk perceptions.

Finally, RPT is also important, as it indicates that risk perceptions are subjective evaluations shaped by experiences, information, social factors, and other contextual elements (Slovic et al., 1982). This means that different tourists may have diverse risk perceptions of the same health-related condition. In summary, CAT helps in understanding the process of transforming risk-related information to destination evaluations, whereas PMT is helpful when dealing with threat appraisals related to health risks. On the other hand, RPT helps in explaining the subjectivity involved in risk evaluation. In addition, CAT shows how risk information influences tourists' perceptions through cognitive appraisal and emotional responses. Hence, the description above provides insight into how destination images are created. In Uganda, tourists are likely to form negative destination images due to several disease outbreaks, such as Ebola and malaria (Seabra et al., 2024; Zhang et al., 2025).

Perceived Health Risk

Perceived health risk is the tourists' subjective evaluation of potential health threats encountered during travel (Chua et al., 2021). Situated within Perceived Risk Theory, it represents one dimension of broader travel risks, alongside safety, financial, psychological, and environmental concerns (Karl et al., 2022; Neuburger & Egger, 2023). Contemporary scholarship increasingly recognises perceived health risk as multidimensional rather than singular. First, disease-related risk remains central, especially for infectious diseases likely to be transmitted during travel. In most cases, tourists often evaluate their exposure to infectious diseases, such as yellow fever, malaria, and emerging epidemics like monkeypox, particularly in destinations with perceived weak health systems (Williams et al., 2022;



Yu et al., 2023). In the African context, where the disease burden is high, this raises health risks, thereby affecting the destination image of African destinations (Novelli et al., 2023). For instance, malaria risk in Uganda continues to influence travel decisions; therefore, some tourists take preventive measures such as prophylactic medications before travel and sleeping under mosquito nets during their trips (WHO, 2023). Second, food and water safety risks arising from contamination, poor hygiene, and sanitation lead to illness, which affects travellers' perceptions of the destination (Williams et al., 2022). Third, road accident risk concerns transport safety resulting from poor road conditions, driver behaviour, and poor road safety enforcement. This particular risk is prominent in developing destinations where traffic safety systems may be less reliable. Beyond these, health-related risks in developing destinations are exacerbated by inadequate medical facilities and limited emergency response capabilities (Yu et al., 2023). The current debates around health risks, especially in the post-COVID-19 era, emphasise the need to implement awareness-raising strategies alongside adaptive risk strategies (Zheng et al., 2022).

Further, the Social Amplification of Risk Framework (SARF) introduced by Kaspersen et al. (2022) indicates that the formation of risk perceptions is not solely based on risk exposure; rather, it may be enhanced or diminished by risk communication through different media outlets, social contacts, government recommendations and advisories. This means that the use of media in tourism can amplify tourists' perceptions of risk when the media reports on epidemics, food poisoning, and road accidents; in such circumstances, tourists' risk perceptions may exceed the actual risk involved. Therefore, media-based risk communication is extremely important in shaping

perceptions of health risk factors. Hence, researchers have also questioned whether risk perception is based on objective reality or is socially constructed through media and destination image constructs, indicating a complex interrelationship between health risks and tourists' behaviour.

Destination Image

The concept of destination image is increasingly recognised in the academic literature as a complex and multifaceted construct that reflects tourists' beliefs, impressions, and emotional connections to a particular location (Stylidis et al., 2020). It represents the overall reputation and mental perception that tourists have about a destination (Ceylan, Cizel & Karakaş, 2021). This perception is based on the destination's attractions, such as beautiful scenery, wildlife, infrastructure and recreational facilities. In addition, it can be based on service quality standards, the cultural and friendliness of people, safety and security considerations, and environmental factors. Relatedly, it can also be based on tourists' perceptions formed from personal experiences for those who have ever travelled to the destination, media information, promotional messages, word-of-mouth, and online reviews. In this regard, when tourists' expectations about a destination are met, they may perceive they are getting good value for money, which improves the destination's image. Conversely, if a destination has a negative image, tourists may perceive it as not offering value for their money, further eroding its image. To understand destination image, Lazarus's (1991) cognitive-affective evaluation theory can explain the cognitive and affective responses and their connection to consumer behaviour and tourism marketing. In the field of tourism marketing, this theoretical framework aligns with the well-established model of destination image,



illustrating that cognitive image (evaluations based on beliefs and knowledge about attributes) leads to affective image (emotional responses and feelings) and ultimately results in behavioural image or conative intentions (Baloglu & McCleary, 1999; Styliadis et al., 2020).

Studies on the concept of destination image have traditionally discussed three interrelated aspects: cognitive, affective, and conative (Baloglu & McCleary, 1999). In the current study, only two of those aspects, namely, cognitive and affective, have been focused upon. The main point is to examine the process of formation of destination image, while there are certain risks to tourists' health. Therefore, it was assumed that the conative aspect, which refers to actions undertaken by tourists (e.g., the intention to visit the destination again), is a consequence rather than an aspect of destination image (Styliadis et al., 2020).

Perceived Health Risks and Destination Image

Recent studies indicate that perceptions of health risks, particularly those associated with infectious diseases, food safety, and road accidents, negatively affect elements of destination image (Zhang et al., 2025; Wang et al., 2024). Furthermore, health risks can affect destination image, instilling fear and uncertainty, thereby diminishing the appeal of the destination and its attractions (Williams et al., 2022; Wang et al., 2024). These studies are supported by the Perceived Risk Theory (Bauer, 1960), which suggests that tourists' behaviours and attitudes after visiting a destination are profoundly influenced by the types of perceived risks encountered there. (Najar & Rather, 2022). Risks related to disease, such as outbreaks of infectious illnesses, increase feelings of uncertainty and fear, which in turn diminish emotional

assessments and the destination's attractiveness. Likewise, concerns about food safety, especially in informal dining settings such as roadside restaurants and highway eating facilities, can undermine tourists' confidence in local sanitation practices and diminish trust in the systems in place (Nouri et al., 2018; Liu et al., 2025). Additionally, risks associated with road accidents, often stemming from inadequate infrastructure, poor driving behaviours, and ineffective enforcement of traffic regulations, further undermine perceptions of safety and elicit negative emotional responses (Abdullah et al., 2023). Therefore, perceived health risks among tourists regarding disease outbreaks, safety, hygiene practices, the quality of health facilities, and the clarity of risk information are strong factors influencing travellers' perceptions of a destination.

Nevertheless, the relationship between health risk perception and destination image remains a subject of divergent scholarly views in the tourism literature. Studies have shown that health risks can tarnish the image of destinations by creating fear, anxiety, and concerns about tourist safety (Wang et al., 2024; Zhang et al., 2025). On the other hand, other studies show that the influence of health risk perception exerted on destination image is usually insignificant, indirect, and highly contextual, like in the case of the COVID-19 pandemic, where some tourists exhibited resilience. This can also occur when the destination offers appealing features, a good reputation, effective communication about risk management, and a history of safety (Pathak & Chintalapati, 2022; Rasoolimanesh et al., 2023). As such, it can be inferred that the relationship between health risk perceptions and destination images may be influenced by specific contexts. There is therefore a



need for more research on the subject matter, especially in emerging destinations such as Uganda.

Considering these opinions, it implies that tourists may perceive destinations that implement effective health risk interventions, such as promoting health awareness and safety measures, as having a good image (Abdullah et al., 2023). In addition, available research suggests that effective safety management, characterised by strong health prevention and management strategies, and clear communication and information sharing, can lessen these negative effects and improve both cognitive and emotional assessments of a destination (Naeem et al., 2023). In developing destinations like Uganda, increased perceptions of risks related to disease prevalence, food hygiene, and road safety can hinder

the formation of a positive destination image, eventually affecting tourism competitiveness and post-tour advocacy efforts. Therefore, there is a link between tourists' perceptions of a destination's health risks and the formation of the destination image in their minds.

Based on Torraco's (2016) integrative review methodology, as indicated in Table 1, the construct of perceived health risk is multidimensional and grounded in various theories of risk perception, whereas the construct of destination image draws on cognitive and affective evaluations. Consequently, these different viewpoints indicate that perceived health risk influences destination image, thus explaining the hypothesis of this study.

Table 1: Conceptual Synthesis

Study Variable	Key Dimensions	Theoretical Underpinning	Core Theoretical Proposition	Key Literature	Expected Relationship
Destination Image	Cognitive Image; Affective Image	Cognitive Appraisal Theory (Lazarus, 1991); Destination Image Model (Baloglu & McCleary, 1999)	Tourists form cognitive evaluations of destination attributes, which subsequently generate affective responses that shape destination images.	Stylidis et al. (2020); Ceylan et al. (2021); Stylidis et al. (2020)	Destination image is expected to be influenced by tourists' perceptions of health-related risks.
Perceived Health Risk	Disease Risk, Food Safety Risk, Road Accident Risk	Perceived Risk Theory (Bauer, 1960); Protection Motivation Theory (PMT) (Rogers, 1983); Social Amplification of Risk Framework (SARF) (Kasperson et al., 2022)	Tourists evaluate potential threats associated with travel. Perceived severity and vulnerability to health-related risks influence attitudes and responses. Media and channels can amplify or attenuate perceived risks.	Chua et al. (2021); Karl et al. (2022); Williams et al., 2022); Yu et al. (2023); Wang et al. (2024)	Higher perceived health risks are expected to negatively influence destination image.
Perceived Health Risk → Destination Image	Relationship between risk perceptions (disease, food safety, road accident) & destination evaluations (cognitive &	Integrated Perceived Risk Theory (Bauer, 1960); Cognitive Appraisal-Risk Perspective (Lazarus, 1991; Rogers, 1983; Slovic et al., 1982)	Perceived health risks trigger cognitive and emotional responses that influence destination image. But the strength of this relationship may vary depending on the destination context and	Wang et al. (2024); Zhang et al. (2025); Pathak & Chintalapati (2022); Rasoolimanesh et al. (2023)	Perceived health risks are expected to trigger cognitive and emotional responses that can natively influence



	affective image)		the effectiveness of communications.		destination image.
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Source: Developed by the Authors based on Torraco's (2016) Integrative Review Methodology

Guided by the theoretical integration, the study advances the following hypotheses:

- H1: Perceived disease risk significantly influences destination image.
- H2: Perceived food safety risk significantly influences destination image.
- H3: Perceived road accident risk significantly influences destination image.

Figure 1 shows the conceptual model for the relationship between perceived health risk dimensions and destination image.

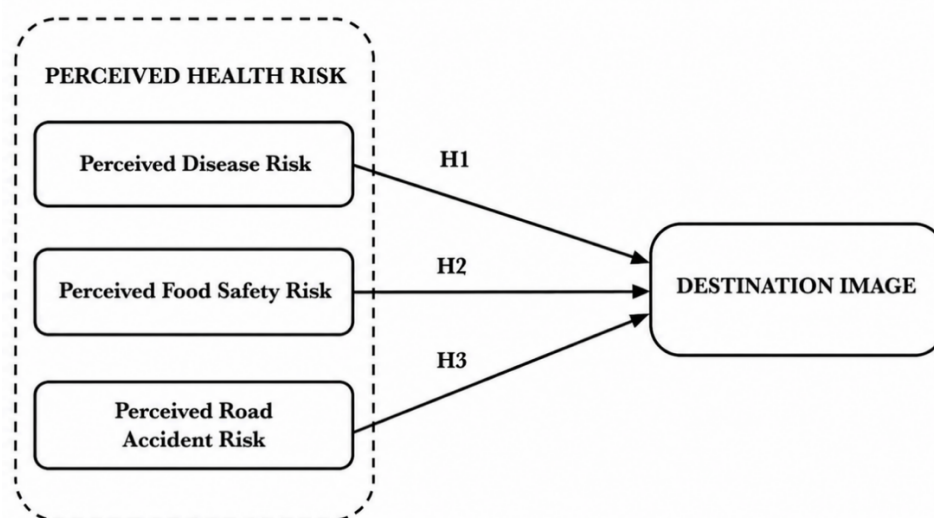


Figure 1: Conceptual Model for the Study

Source: Adopted from Perceived Risk Theory (Bauer, 1960)

METHODOLOGY

Research Design

This study employed a cross-sectional research design and quantitative approach, using a correlational research design to identify relationships among the study variables (Taherdoost, 2022). The correlational framework showed both the strength and direction of relationships, thus enabling the assessment of the study variables, i.e., perceived health risk and destination image (Bloomfield & Fisher, 2019). Although the study hypothesises relationships among the constructs, the cross-sectional design captures data at a single point in time, which is

acknowledged as a study limitation here. However, it permits the examination of associations and predictive relationships rather than conclusive causal effects.

Population and Sample

The study population was 1,274,210 international tourists who had visited Uganda in 2023 (MTWA, 2024). The sample size was 384 according to Krejcie and Morgan (1970). Studies involving mobile populations, such as tourists, often use previous tourist arrival figures as the population for sample size calculations because these figures generally provide a reasonable estimate of the total number of potential respondents. Therefore, a convenience sampling



method that employed an intercept random sampling approach was used to select respondents.

However, the researchers noted that the intercept random sampling technique could introduce sampling biases. Therefore, to minimise such biases, data collection took place every day and at every time international flights took off, and all tourists interested in participating in the study had an equal chance. Additionally, this research did not consider tourists using entry and exit points other than Entebbe International Airport, as it focused on long-haul international tourists, who contribute the most foreign exchange revenue and who, for the most part, pass through the airport. However, this research approach was recognised as a limitation, meaning that the results can only be generalised to international tourists departing from Entebbe International Airport, Uganda's main gateway.

Data Collection

Data was collected between November 2024 and January 2025. A self-administered questionnaire was employed to collect data from international tourists. The questionnaire covers background characteristics in section A, which include both tourist and trip profiles. Section B included items measuring the variables of perceived health risks and destination image. The indicators for the independent variable, perceived health risk (disease, food safety, and road accidents), were obtained from Najjar & Rather (2022), Chen et al. (2023), and An et al. (2024). The items for destination image (cognitive and affective) were obtained from Zhou, Ng, & Deng (2024) and Najjar & Rather (2022). The measurement items were anchored on a 6-point Likert scale ranging from '1' – strongly disagree to '6' – strongly agree. A 6-point Likert scale was adopted to eliminate the neutral response option and reduce response bias by encouraging a clear,

unbiased evaluative position, thus improving discriminative power in attitude measurement (Chomeya, 2010).

Data Analysis

Partial Least Squares Structural Equation Modelling (PLS-SEM) was performed using SmartPLS4. The measurement model was evaluated for validity through the Average Variance Extracted (AVE) and Heterotrait Monotrait (HTMT) ratio of correlations, and for reliability using Cronbach's alpha (α) and Composite Reliability (CR). Multicollinearity was assessed using the Variance Inflation Factor (VIF). Furthermore, a structural model and corresponding path coefficients were developed to test the causal relationships among the variables. The measurement model focused on evaluating the validity and reliability of the constructs, while the structural model and path coefficients were used to assess the hypothesised relationships among them.

Ethical Considerations

The research process was conducted in accordance with ethical considerations, including obtaining informed consent from respondents, maintaining confidentiality, and minimising risks. Prior to completing the questionnaires at Entebbe International Airport, tourists were informed of the study's objectives and that their participation was voluntary. Additionally, throughout the data collection process, no information about the participants' identities or answers was disclosed. Moreover, confidentiality was assured by presenting the findings in a summarised form to avoid linking the results to any individual participant in the study. Likewise, the envisaged risks were mitigated by respecting the rights of the study participants and by following the guidance provided by the airport management.



RESULTS

Demographic Characteristics and Trip Profile of Respondents

The demographic and trip profile characteristics of respondents are presented in Tables 2 and 3.

Table 2: Demographic Profiles of International Tourists (N=384)

Demographic Profile	Items	Percent
Gender	Male	52.1
	Female	47.9
Age	18–29	26.0
	30–39	28.1
	40–49	21.9
	50–59	14.1
	60 & above	9.9
Marital Status	Married	46.1
	Single	46.1
Education Level	Postgraduate	20.1
	Bachelor's	38.0
	Diploma	26.0
	High School	12.0
	Below High School	3.9
Income Level	USD 50,000 & below	24.0
	USD 50,001–100,000	24.0
	USD 100,001–150,000	18.0
	USD 150,001–200,000	14.1
	Above USD 200,001	20.1
Employment Status	Employed	78.1
	Retired	12.0
	Not yet employed	9.9

Source: Survey

Table 2 results show that by gender, 52.1% were male and 47.9% were female. The age distribution shows that the majority were young to middle-aged adults, with 26.0% aged 18-29 years, and 28.1% aged 30-39 years, implying that more young people may have travelled to Uganda at the time of the study. Regarding respondents' education levels, 20.1% had postgraduate qualifications, while 38.0% had

bachelor's degrees, suggesting that the majority were literate and capable of providing informed responses. The respondents' annual incomes were relatively varied, with the majority earning less than USD100,000, which was in line with the average annual incomes of international travellers. Finally, the majority of respondents were employed (78.1%), while 12.0% had retired, and 9.9% were not yet employed. Generally, the demographic profiles were varied, indicating that the responses came from diverse groups and thus could be relied on to represent a broad range of responses for the study.

Table 3: Trip Characteristics of International Tourists (N=384)

Tourism Trip Profiles	Items	Percent
No. of Times Visiting Uganda	First time visit	26.0
	Two times	18.0
Days Stayed in Uganda	Three times	19.0
	Four times	11.0
	More than four times	26.0
	1–2 days	13.0
	3–4 days	11.0
Purpose of Visiting	5–6 days	19.0
	6–7 days	19.0
	More than 7 days	38.0
	Leisure Holiday	36.0
	Business	28.0
Visiting With	Attend Meeting	10.0
	Visit Friends / Relatives	14.0
	Others	12.0
	Alone	28.0
	Family	28.0
How They Heard About Uganda	Friends	16.0
	Workmates	28.0
	Travel Agents	12.0
	Internet	24.0
	Friends / Relatives	30.0
	Newspapers	34.0



Continent of Origin	Africa	16.0
	America	20.0
	Asia	14.0
	Australia	10.0
	Europe	40.0

Source: Survey

According to Table 3, the purposes of the visit were: leisure (36%), business (28%), attending meetings (10%), visiting friends or relatives (14%), and other purposes (12%). Regarding travel companions, 28% of tourists travelled alone, 28% travelled with family members, 16% travelled with friends, and 28% with workmates. On how they learned about Uganda, 12% were through travel agents, 24% via the internet, 30% through friends and relatives, and 34% from newspapers. Regarding the continent of origin, 16% were from Africa, 20% from America, 14% from Asia, 10% from Australia, and 40% from Europe. Based on these results, it can be concluded that the tourists who participated in the study had varied trip profiles, i.e., broad backgrounds, travel objectives, knowledge and experiences.

Common Method Bias

Since data were gathered through a self-administered questionnaire from a single source, it was necessary to analyse common method bias (CMB), which was assessed using Harman's single-factor test, as advised by Podsakoff et al. (2012). The results showed that the first factor accounted for 36.89% of the total variance, which was below the recommended threshold of 50%. This implied that the study had no serious concerns about common method bias. In addition, certain procedural measures were adopted during the preparation and completion of the questionnaire. These measures included ensuring respondents' anonymity and confidentiality, grouping constructs into separate sections of the questionnaire, and using primarily neutral, nonleading wording to prevent socially desirable responses.

Measurement Models

To assess the appropriateness of the data for structural equation modelling, Smart Partial Least Squares (SmartPLS) version 4.9.1.1 was used (Hair et al., 2022). The following tests were conducted: convergent and discriminant validity were established

Table 4: Average Variance Extracted (AVE) and Heterotrait-Monotrait (HTMT) Ratios

Measures	AVE	PHR	RR	DR	FR
PHR					
RR	0.708	0.524			
DR	0.559	0.608	0.550		
FR	0.650	0.896	0.852	0.876	
Measures	AVE	DI	AI	CI	
DI					
AI	0.715	0.286			
CI	0.755	0.787	0.840		

Key: RR = Road Accident Risk; AI = Affective Image; CI = Cognitive Image; DI = Destination Image; DR = Disease Risk; FR = Food Safety Risk; PHR = Perceived Health Risk

Source: Survey



using AVE and HTMT indices, while internal consistency was confirmed using Cronbach's alpha (α) and composite reliability. Furthermore, variance inflation factor (VIF) values were examined to assess multicollinearity, demonstrating that the independent variables were sufficiently distinct and suitable for predicting the dependent variable. The results are presented in Tables 4 and 5.

The results in Table 4 show that all AVEs were above 0.5, the minimum requirement for convergent validity, indicating that the constructs attained convergent validity. The Heterotrait-Monotrait (HTMT) Ratio Correlations were all below the maximum of 0.9 (Hair et al., 2022), indicating that the constructs demonstrated discriminant validity. Based on these results, it can be concluded that the constructs measuring perceived health risk and destination image were both convergent and discriminant, thus independent of each other. This means their measurement indicators were valid.

Table 5: Reliability Coefficients and VIF

Construct	Cronbach's α	(CR)	VIF
RR	0.897	0.924	1.404
DR	0.797	0.861	1.484
FR	0.861	0.902	1.550
CI	0.918	0.939	1.072
AI	0.900	0.926	1.072

Key: RR = Road Accident Risk; AI = Affective Image; CI = Cognitive Image; DR = Disease Risk; FR = Food Safety Risk

Source: Survey

The results show that the constructs met the required measurement criteria for Composite Reliability (CR), with values ranging from 0.861 to 0.926, indicating satisfactory internal consistency, as per Hair et al. (2022). Nonetheless, composite reliability is a better choice as a measurement criterion than Cronbach's alpha, as it does not require equal loadings across indicators (Hair et al., 2022; Marcoulides & Raykov, 2019). On the other hand, all of the Cronbach's alphas in this research had values ranging between 0.797 and 0.918, surpassing the conventional threshold of 0.70, indicating satisfactory reliability. Also, the range of Variance Inflation Factor (VIF) values was between 1.072 and 1.550, well below the critical value of 5.0, indicating that the constructs were distinct and that multicollinearity was absent among the predictors (Marcoulides & Raykov, 2019). Overall, these findings provided considerable support for the suitability of the measurement model used herein.

Perceived Health Risk and Destination Image

To assess the influence of perceived health risk and destination image, a structural model was developed. The model tested three hypotheses: disease risk (H1), food safety risk (H2), and road accident risk (H3) to examine if they have a significant influence on destination image. The structural model (Figure 2) shows the causal linkages between the variables.

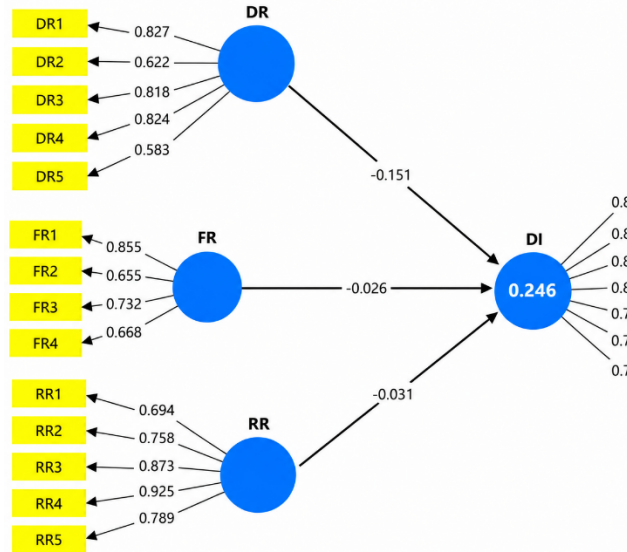


Figure 2: Perceived Health Risk and Destination Image Structural Equation Model

Key: RR = Road Accident Risk; AI = Affective Image; CI = Cognitive Image; DI = Destination Image; DR = Disease Risk; FR = Food Safety Risk

Figure 2 depicts the paths from the three Perceived Health Risk sub-dimensions of Disease Risk (DR), Food Safety Risk (FR), and Road Accident Risk (RR) to Destination Image (DI). Destination image is operationalised into two sub-constructs: Cognitive Image (CI) and Affective Image (AI).

The results in Table 6 showed that all three paths were negatively related; however, only one path of disease risk and destination image was significant ($\beta = -0.151$, $t = 2.293$, $p = 0.022$), as ($p < 0.05$), thus supporting H1, which indicated that the disease risk dimension negatively influenced the destination image in Uganda.

Table 6: Path Estimates for Perceived Health Risk and Destination Image

Path Relationship	β	t	p	F ²
Disease Risk → Destination Image	-0.151	2.293	0.022	0.013
Food Safety Risk → Destination Image	-0.026	0.383	0.701	0.000
Road Accident Risk → Destination Image	-0.031	0.363	0.717	0.001

Table 7: Predictive Summary for Destination Image

R-square	Adjusted R-square	Q ² predict	RMSE	MAE
0.246	0.240	0.013	1.003	0.771

On the other hand, the two paths H2 and H3, i.e., food risk and destination image ($\beta = -0.026$, $t = 0.383$, $p = 0.701$) and road accident risk and destination image ($\beta = -0.031$, $t = 0.363$, $p = 0.717$), were not supported as they produced non-significant results ($p > 0.05$). This suggested that even when the directions of the relationships were negative, the two individual health risk dimensions of food safety and road accidents did not directly affect the destination image in the Ugandan tourism context. The model accounted for

only 24.6% of the variance in destination image ($R^2 = 0.246$; Adjusted $R^2 = 0.240$), indicating a weak explanatory power (Hair et al., 2022), although it approaches the moderate threshold of 0.25. This suggests that perceived health risk, when examined across the individual dimensions studied, is a limited direct predictor of destination image formation in the Ugandan context. These findings may suggest that destination image is shaped by a broader array of cognitive and affective stimuli beyond health risk



perceptions alone, including natural attractions, service quality, and cultural experiences, as theorised in the destination image literature (Stylidis et al., 2020; Rather, 2023).

The effect sizes (f^2) for the relationships between different aspects of Perceived Health Risks and Destination Image were examined. The findings in Table 7 showed almost no effects, as indicated by the following results: Disease Risk (0.013), Food Safety Risk (0.000), and Road Accident Risk (0.001). All health risk dimensions had values below the threshold of 0.020, indicating they did not have a meaningful influence according to Cohen (1988); by comparison, the Disease Risk had the strongest contribution but remained very weak overall. Furthermore, using the blindfolding approach, the model revealed a weak predictive relevance since its Q^2_{predict} was equal to 0.013, which is only slightly higher than the threshold ($Q^2 > 0$) defined by Hair et al. (2022).

DISCUSSION

The findings revealed a more nuanced relationship between perceived health risk dimensions and destination image than originally hypothesised. All three health risks had negative path coefficients, but only disease risk had a statistically significant influence on destination image. Food safety risk and road accident risk were found to have no statistically significant influence on destination image. The above observations partially support theories such as Risk Perception Theory (Bauer, 1960), Cognitive Appraisal Theory (Lazarus, 1991), and Protection Motivation Theory (Rogers, 1983). This suggests that perceived health threats prompt cognitive and emotional assessments that shape destination perceptions. In particular, disease risks are sufficiently salient to affect tourists' perceptions of destinations, whereas food safety and road accident risks do not play a vital

role in shaping Uganda's destination image. The effect size fell below Cohen's (1988) recommended threshold, while the model demonstrated both weak explanatory power for the variance in destination image and weak predictive relevance. Additionally, it is noted that the statistical model had limited explanatory power regarding destination image variability and limited predictive relevance. Therefore, the results indicate that the role of perceived health risks in destination image formation within the analysed dimensions is marginal. In line with contemporary debates regarding null hypothesis testing in tourism studies (De Los Reyes & Dael, 2023), it is also necessary to emphasise that, in addition to significance, one should pay attention to practical significance. In other words, although disease risk was statistically significant, its substantive impact on destination image was minimal, indicating that other destination attributes may exert a stronger influence on tourists' perceptions.

As far as disease risk is concerned, the results revealed a statistically significant negative effect on destination image. This result supported previous studies, which showed that perceptions of disease can negatively affect tourists' destination image due to uncertainty and vulnerability (Zhang et al., 2025; Wang et al., 2024). The explanation of such a phenomenon can be presented using Cognitive Appraisal Theory (Lazarus, 1991), according to which people cognitively assess the likelihood and consequences of contracting an illness and form an evaluation that affects the image of the destination. Furthermore, according to Risk Perception Theory (Bauer, 1960), diseases are perceived as an immediate and personal threat to tourists compared with other threats that can arise when travelling to a destination. However, the effect size remained insignificant; thus,



although disease risk has a statistical effect, it has little practical impact on the destination's image. Therefore, disease risk is not likely to change tourists' evaluation of the destination, Uganda. Rather, destination image appears to be shaped by a broader combination of cognitive evaluations and affective responses associated with destination attractiveness, tourism experiences, and destination reputation (Baloglu & McCleary, 1999; Rather, 2023).

Regarding food safety risk, the results show a non-significant negative correlation with destination image. Therefore, although tourists view food safety issues as travel risks, this perception does not significantly influence their view of Uganda as a travel destination. The result differs from previous studies, which suggest that food safety risk concerns have a significant impact on destination image (Wang et al., 2024; Williams et al., 2022). From a theoretical perspective, this could be explained by Cognitive Appraisal Theory, which suggests that tourists evaluate various destination attributes simultaneously. In the case of Uganda, positive cognitive and affective evaluations of wildlife tourism, natural features (for instance, mountain gorillas), and culture seem to override concerns about food safety when evaluating the destination image. Furthermore, the negligible effect size suggests that food safety risk contributes very little practical explanatory value to destination image formation in this context.

Likewise, road accident risk exhibited a statistically insignificant negative association with destination image. While transportation safety has traditionally been considered an essential part of tourism risk, according to Atalay et al. (2025), the current study results showed that road accidents were not a significant factor in shaping tourists' perceptions of Uganda. This means that tourists may separate

transportation risks from the overall evaluation of the destination. As suggested by the Risk Perception Theory (Bauer, 1960), not all perceived risks are equally important in destination evaluation. There are, therefore, certain risks that are more prominent than others, especially those related to personal health, such as infectious diseases. In addition, the very small effect size indicates that road accident risk had practically no influence on destination image. Consequently, destination image appears to be influenced more strongly by other cognitive and affective evaluations than by perceptions of road safety alone.

Collectively, these findings contribute to the growing literature on post-pandemic travel normalisation. The present findings provide evidence that, while disease-related risks remain relevant, health risks generally exert only a weak influence on destination image formation in the context of Uganda. This suggests that health-risk perceptions may have become only one of many competing considerations in destination evaluation. Consequently, the findings support emerging arguments that destination image in the post-COVID-19 era is increasingly shaped by a mixture of cognitive evaluations and affective experiences rather than health-risk perceptions alone. Recent tourism research suggests that tourists increasingly assess destinations using broader experiential and destination-quality considerations rather than focusing exclusively on risk-related concerns (Rather, 2023). Furthermore, according to Rasoolimanesh et al. (2023), travellers' trust and destination experiences coupled with their overall destination evaluations have become increasingly important in shaping tourists' behaviours in the post-COVID-19 travel environment. These null findings contribute to the emerging body of literature suggesting that the influence of perceived risks on



tourism outcomes may have weakened in the post-COVID-19 era. In any case, as international travel gradually normalised, tourists became apparently more tolerant of certain health and safety risks, judging destinations using not only risk perception but also a broader range of cognitive and emotional dimensions (Pathak & Chintalapati, 2022; Rasoolimanesh et al., 2023). This could be why both food safety and road accident risks had little effect on destination image in the Ugandan setting.

CONCLUSION

This study examined the influence of health-risk perception dimensions (diseases, food safety issues, and road accidents) on Uganda's destination image in the post-COVID-19 period. Results indicated that health-risk dimensions were negatively related to destination image, but only disease risks had a statistically significant impact. Perceived health risk due to food safety and road accidents did not significantly influence destination image. These results partially support theories of risk perception, cognitive appraisal, and protection motivation, which argue that individuals' perceived threats can influence their cognition and emotions toward particular destination sites. Even though health risks due to disease affected destination image, their practical significance was small, given their negligible effect size and the model's weak explanatory and predictive power. Thus, despite their importance, perceived health risks had a marginal influence on the formation of destination image among international tourists in Uganda. Therefore, these results indicate that the perception of destination image is probably more significantly influenced by broader cognitive and emotional evaluations related to destination attractiveness, tourist experiences, natural features,

and destination reputation than by perceptions of health risks alone.

In terms of contributions, the present study adds to the growing body of knowledge on the normalisation of travel after the pandemic by showing that certain perceived health risks, such as those related to food safety and road accidents, may no longer be dominant factors in shaping destination images. In line with the current body of tourism research, it seems that tourists tend to perceive destinations based on other destination quality criteria as well. Consequently, tourists' health-risk perceptions may represent only one of several competing reflections in destination evaluation within the contemporary tourism environment. Theoretically, the current study contributes to the existing body of tourism risk research by demonstrating that the predictive capacity of risk models based on both Protection Motivation Theory and Risk Perception Theory may be lower than expected in the post-pandemic environment. Specifically, the empirical data show that destination image formation was increasingly related to general cognitive and affective assessments of the destination experience, rather than to health risk assessments. Hence, the paradigm of risk aversion that dominates the tourism risk literature needs to be re-examined. In practice, the current findings suggest that destination marketing managers and policy makers need to improve their risk management and communication systems for health risks, especially infections. Yet, the emphasis needs to be on promoting Uganda's unique tourist features, such as natural attractions, wildlife safaris, and cultural heritage, which appear to play a more prominent role in shaping destination image.



RECOMMENDATIONS

The findings indicated that disease risks had a statistically significant influence on destination image, which food safety and road accidents did not, suggesting that destination image may be influenced more strongly by broader destination attributes, including tourism experiences, destination attractiveness, natural attractions, and cultural offerings. Therefore, destination managers and policymakers, especially the Uganda Tourism Board, should continue to prioritise promoting Uganda's tourism assets through marketing communications that highlight the quality of the experience and the destination's unique value proposition. In addition, health risk management should continue to play a complementary role to marketing communication. Tourists will need to receive clear health and safety guidelines from tourism stakeholders such as the airport authority, hotels, transportation providers, tour guides, and tourist site managers, with specific emphasis on disease prevention, information on travellers' health, vaccination requirements, emergency response preparedness, food hygiene standards, and road safety practices, among others. These practices might not directly enhance destination image, but can help create more confident tourists who will have better experiences at the destination. Moreover, tourism authorities should implement effective risk communication practices to inform visitors about health and safety issues. In line with the study's findings, such risk communication should complement destination marketing communication.

Limitations

First, the study used a cross-sectional research design, capturing tourists' perceptions at a single point in time. Perceived health risks and

destination image can change in response to changes in health conditions, disease outbreaks, media reporting, and destination experiences. Thus, further research should use longitudinal designs to assess the temporal dynamics of these relationships. Second, only three aspects of perceived health risks, namely disease risk, food safety risk, and road accident risk, were examined. Although the proposed model helped explain some variance in destination image, its ability to predict and explain destination image can be improved by considering other variables that may play a significant role in shaping it. Thus, future research should consider other predictors, such as service quality, destination experiences, destination trust, social media communication, online reviews, electronic word-of-mouth, destination reputation, and artificial intelligence-based tourism communication.

Third, the study was conducted in the Ugandan tourism context among international tourists using Entebbe International Airport. As a result, the findings may be somewhat limited to the domestic tourists, regional tourists, and tourists visiting other emerging destinations. Comparative studies across different country contexts would enhance understanding of how perceived health risks influence destination image under varying cultural conditions. Fourth, the findings provide an important theoretical contribution, demonstrating that the effect of perceived health risks on destination image can be weaker in post-pandemic and emerging-market environments than predicted by risk-based tourism frameworks. Although Risk Perception Theory, Cognitive Appraisal Theory, and Protection Motivation Theory have received partial support, the limited practical effects indicate that tourists tend to evaluate destinations in terms of broader cognitive and emotional considerations rather than health-risk



perceptions. Thus, further research should explore potential moderators and mediators of the relationship under study, such as destination trust, tourist experience, risk tolerance, destination familiarity, and travel motivation.

Finally, it is necessary to conduct further research about the impact of destination marketing strategies and risk communication campaigns on destination image. In particular, it would be interesting to find out whether combining health and safety messaging with destination branding and experiential marketing affects tourists' perceptions in the post-pandemic tourism environment.

REFERENCES

- Abbasi, A. Z., Rather, R. A., Hooi Ting, D., Nisar, S., Hussain, K., Khwaja, M. G., & Shamim, A. (2024). Exploring tourism-generated social media communication, brand equity, satisfaction, and loyalty: A PLS-SEM-based multi-sequential approach. *Journal of Vacation Marketing*, 30(1), 93–109. <https://doi.org/10.1177/13567667221118651>
- Abdullah, M., Chew, B. C., & Hamid, S. R. (2023). Safety, hygiene and destination image in post-pandemic tourism. *Journal of Destination Marketing & Management*, 27, 100754. <https://doi.org/10.1016/j.jdmm.2023.100754>
- Agaba, B., Nelly, H. N., Wanyana, M. W., Zalwango, J. F., Simbwa, B., Akunzirwe, R., & Harris, J. R. (2024). Prevalence of and factors associated with anxiety, depression and post-traumatic stress disorder among Sudan ebolavirus disease survivors and family members, Uganda, January 2023: A cross-sectional study. *Discover Psychology*, 4(1), 87. <https://doi.org/10.1007/s44202-024-00203-9>
- An, S., Choi, J., Eck, T., & Yim, H. (2024). Perceived risk and food tourism: Pursuing sustainable food tourism experiences. *Sustainability*, 16(1), 13. <https://doi.org/10.3390/su16010013>
- Atalay, Y. A., Tekulu, G. H., & Worku, M. G. (2025). Epidemiology of road traffic accidents and its associated factors among public transportation in Africa: A systematic review and meta-analysis. *Frontiers in Public Health*, 13, 1511715. <https://doi.org/10.3389/fpubh.2025.1511715>
- Baloglu, S., & McCleary, K. W. (1999). A model of destination image formation. *Annals of Tourism Research*, 26(4), 868–897. [https://doi.org/10.1016/S0160-7383\(99\)00030-4](https://doi.org/10.1016/S0160-7383(99)00030-4)
- Bauer, R. A. (1960). Consumer behaviour as risk-taking. In *Proceedings of the 43rd National Conference of the American Marketing Association*. American Marketing Association.
- Bloomfield, J., & Fisher, M. J. (2019). Quantitative research design. *Journal of the Australasian Rehabilitation Nurses Association*, 22(2), 27–30.
- Ceylan, D., Çizel, B., & Karakaş, H. (2021). Destination image perception patterns of tourist typologies. *International Journal of Tourism Research*, 23(3), 401–416. <https://doi.org/10.1002/jtr.2414>
- Chen, S. L., Tseng, H. T., & Chen, Y. C. (2023). How tourists' perceived risk affects behavioral intention in the post-COVID-19 era: The roles of crisis communication and emotional



- attachment to destinations. *Mathematics*, 11(4), 860.
<https://doi.org/10.3390/math11040860>
- Chomeya, R. (2010). Quality of psychology test between Likert scale 5 and 6 points. *Journal of Social Sciences*, 6(3), 399–403.
<https://doi.org/10.3844/jssp.2010.399.403>
- Chua, B. L., Al-Ansi, A., Lee, M. J., & Han, H. (2021). Impact of health risk perception on avoidance of international travel in the wake of a pandemic. *Current Issues in Tourism*, 24(7), 985–1002.
<https://doi.org/10.1080/13683500.2020.1829570>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
<https://doi.org/10.4324/9780203771587>
- Crames, J., Nguyen, T. H., & Hassan, S. B. (2023). Health risk perception and travel intention in the post-pandemic era. *Journal of Travel Research*, 62(5), 1023–1038.
<https://doi.org/10.1177/00472875221123456>
- De Los Reyes, K. T., & Dael, R. J. (2023). Influence of destination image and tourist satisfaction on destination loyalty. *British Journal of Multidisciplinary and Advanced Studies*, 4(3), 46–61.
<https://doi.org/10.37745/bjmas.2022.0195>
- Fowler, J. J., Preston, E., Gearhart, S. L., & et al. (2024). On alert for Ebola: Public health risk assessment of travellers from Uganda to the USA during the 2022 outbreak. *Journal of Travel Medicine*, 31(5), taae079.
<https://doi.org/10.1093/jtm/taae079>
- González-Reverté, F., Corrons, A., & Gomis-López, J. M. (2025). Exploring the role of memorable tourism experiences and place attachment in the revisit intention of tourists staying in short-term rentals. *Journal of Hospitality and Tourism Insights*, 8(11), 79–99. <https://doi.org/10.1108/JHTI-05-2024-0451>
- Hair, J., & Alamer, A. (2022). Partial least squares structural equation modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, 1(3).
<https://doi.org/10.1016/j.rmal.2022.100027>
- Izudi, J., Alioni, S., Keron, N., & et al. (2023). Ebola incidence and mortality before and during a lockdown in Uganda's 2022 Ebola outbreak. *PLOS Global Public Health*, 3(12), e0002702.
<https://doi.org/10.1371/journal.pgph.0002702>
- Karl, M., Muskat, B., & Ritchie, B. W. (2022). Which travel risks are more salient for destination choice? An examination of the tourist's decision-making process. *Journal of Destination Marketing & Management*, 23, 100676.
<https://doi.org/10.1016/j.jdmm.2022.100676>
- Kasperson, R. E., Webler, T., Ram, B., & Sutton, J. (2022). The social amplification of risk framework: New perspectives. *Risk Analysis*, 42(7), 1367–1380.
<https://doi.org/10.1111/risa.13926>
- Koumassa, O. B., Ouéchéhou, R., Hounsou, M., Zannou, O., & Dabadé, D. S. (2025). Factors influencing street-vended foods quality and safety in developing countries: A review. *Discover Food*, 5(1), 18.



- <https://doi.org/10.1007/s44187-025-00286-w>
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607–610. <https://doi.org/10.1177/001316447003000308>
- Lazarus, R. S. (1991). *Emotion and adaptation*. Oxford University Press.
- Liu, S., Islam, H., Ghosh, T., & Afrin, K. H. (2025). Exploring the nexus between economic growth and tourism demand: The role of sustainable development goals. *Humanities and Social Sciences Communications, 12*(1), 1–14. <https://doi.org/10.1057/s41599-025-04733-y>
- Marcoulides, K. M., & Raykov, T. (2019). Evaluation of variance inflation factors in regression models using latent variable modelling methods. *Educational and Psychological Measurement, 79*(5), 874–882. <https://doi.org/10.1177/0013164418817803>
- Ministry of Tourism, Wildlife and Antiquities. (2020, July). *Impact of COVID-19 on tourism businesses in Uganda*. Government of Uganda. <https://utb.go.ug/wp-content/uploads/2024/02/Report-on-the-Impact-of-COVID-19-on-the-Tourism-Sector-in-Uganda.pdf>
- Muresherwa, G., Makuzva, W., Dube, C. N., & Amony, I. (2022). The management of mountain gorilla tourism in Uganda: Are the socio-economic benefits realised? *The Journal for Transdisciplinary Research in Southern Africa, 18*(1), a1136.
- Nabukeera, M. (2022). The effect of COVID-19 pandemic on the tourism sector in Uganda. *Islamic University Journal of Social Sciences, 1*(2), 117–128.
- Naeem, A., Zaheer, Z., Kalsoom, T., Tabassum, S., Albakri, K., & Wireko, A. A. (2023). Deadly Ebola virus outbreak in Uganda, 2022: An imminent threat to the public health and safety. *Annals of Medicine and Surgery, 85*(2), 345–347.
- Najar, A. H., & Rather, A. H. (2022). Assessing the relationship of perceived risks with destination image and destination loyalty: A tourist's perspective visiting volatile destinations. *Journal of Hospitality and Tourism Insights, 6*(7), 1357–1378. <https://doi.org/10.1108/JHTI-03-2022-0100>
- Nannono, R., Ariyo, G. K., Kamugisha, N., & Friday, C. (2023). The contribution of road transport to the development of tourism in Uganda. *Metropolitan Journal of Social and Educational Research, 2*(2), 426–440.
- Neuburger, L., & Egger, R. (2023). Travel risk perception and travel behaviour during and after COVID-19. *Tourism Management Perspectives, 45*, 101037.
- Nouri, B. A., Ebrahimpour, H., Zadeh, M. H., Banghinie, M., & Soltani, M. (2018). The effect of tourism risk dimensions on foreign tourists' satisfaction and loyalty: Mediating role of destination image (case study Ardabil City). *Almatourism – Journal of Tourism, Culture and Territorial Development, 9*(17), 55–94. <https://doi.org/10.6092/issn.2036-5195/7207>
- Novelli, M., Burgess, L. G., Jones, A., & Ritchie, B. W. (2023). 'No Ebola... still doomed' – The



- Ebola-induced tourism crisis. *Annals of Tourism Research*, 98, 103516.
<https://doi.org/10.1016/j.annals.2022.103516>
- Osman, H., Al-Swidi, A. K., & Al-Hakimi, A. (2025). Tourism resilience, destination loyalty, and economic sustainability in post-COVID markets: Evidence from emerging economies. *Journal of Tourism Research and Hospitality*, 14(1), 1–18.
<https://doi.org/10.4172/2324-8807.1000355>
- Pathak, N. D., & Chintalapati, N. (2022). Role of perceived risk, destination image, tourist constraints and attitude in travel intentions of tourists in India during COVID-19. *IUP Journal of Accounting Research & Audit Practices*, 21(3).
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539–569.
<https://doi.org/10.1146/annurev-psych-120710-100452>
- Rasoolimanesh, S. M., Seyfi, S., & Hall, C. M. (2023). Tourist risk perception and revisit intention: The moderating role of trust. *Journal of Travel Research*, 62(5), 1123–1138.
<https://doi.org/10.1177/00472875221099413>
- Rather, R. A. (2023). Customer experience and destination loyalty: A cognitive–affective–behavioural perspective. *Journal of Hospitality and Tourism Insights*, 6(2), 456–472. <https://doi.org/10.1108/JHTI-09-2022-0415>
- Rogers, R. W. (1983). Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. T. Cacioppo & R. E. Petty (Eds.), *Social psychophysiology: A sourcebook* (pp. 153–176). Guilford Press.
- Seabra, C., Dolnicar, S., & Abrantes, J. L. (2024). Health risk perceptions and tourism behaviour: The role of trust and image. *Tourism Management*, 98, 104789.
<https://doi.org/10.1016/j.tourman.2023.104789>
- Slovic, P., Fischhoff, B., & Lichtenstein, S. (1982). Why study risk perception? *Risk Analysis*, 2(2), 83–93. <https://doi.org/10.1111/j.1539-6924.1982.tb01369.x>
- Stylidis, D., Shani, A., & Belhassen, Y. (2020). Testing an integrated destination image model across residents and tourists. *Tourism Management*, 58, 184–195.
<https://doi.org/10.1016/j.tourman.2016.10.014>
- Taherdoost, H. (2022). What are different research approaches? Comprehensive review of qualitative, quantitative, and mixed method research, their applications, types, and limitations. *Journal of Management Science & Engineering Research*, 5(1), 53–63.
<https://hal.science/hal-03741840v1>
- Torraco, R. J. (2016). Writing integrative reviews of the literature: Methods and purposes. *International Journal of Adult Vocational Education and Technology*, 7(3), 62–70.
<https://doi.org/10.4018/IJAVET.2016070106>
- Tourism Research Institute. (2025). *Tanzania tourism statistics report 2024*. United Republic of Tanzania.



- Uganda Bureau of Statistics. (2025). *Uganda tourism satellite account report 2025*. UBOS.
<https://www.ubos.org/wp-content/uploads/publications/Uganda-Tourism-Satellite-Account-Report-March-2025.pdf>
- Vukolić, D., Čukić, M., Šarović, S., Grbović, M., Šijan, G., Vukolić, A., & Mitrović, S. (2025). Influence of perceived hygiene and food safety on tourist satisfaction and revisit intentions in post-pandemic hospitality settings. *International Journal of Environmental Research and Public Health*, 22(3), 312.
<https://doi.org/10.3390/ijerph22030312>
- Wang, S., Li, Y., & Zhen, F. (2024). How does perceived health risk influence tourist behaviour? A systematic review and integrative framework. *Tourism Management Perspectives*, 49, 101189.
<https://doi.org/10.1016/j.tmp.2023.101189>
- Weeden, A.-M., & Pamment, N. (2024). "You walk on glass if you are in that space": Risks and harms of corruption in wildlife justice pathways in Uganda. *Journal of Economic Criminology*, 6, 100102.
<https://doi.org/10.1016/j.jeconc.2024.100102>
- World Health Organization. (2023). *World malaria report 2023*. World Health Organization.
<https://doi.org/10.4060/cc3559en>
- Williams, A. M., Chen, J. L., Li, G., & Baláž, V. (2022). Risk, uncertainty and ambiguity amid COVID-19: A multi-national analysis of international travel intentions. *Annals of Tourism Research*, 92, 103346.
<https://doi.org/10.1016/j.annals.2021.103346>
- Yu, M., Li, Z., Yu, Z., He, J., & Zhou, J. (2023). Communication related health crisis on social media and tourist behaviour. *Annals of Tourism Research*, 92, 103335.
<https://doi.org/10.1016/j.annals.2021.103335>
- Zhang, H., Wu, Y., & Buhalis, D. (2025). Destination image formation in risk contexts: A cognitive–affective approach. *Annals of Tourism Research*, 102, 103629.
<https://doi.org/10.1016/j.annals.2024.103629>
- Zheng, D., Luo, Q., & Ritchie, B. W. (2022). Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic travel fear. *Tourism Management*, 89, 104261.
<https://doi.org/10.1016/j.tourman.2021.104261>
- Zhou, X., Ng, S. I., & Deng, W. (2024). Why I revisit a historic town in Chengdu? Roles of cognitive image, affective image and memorable tourism experiences. *Asia Pacific Journal of Marketing and Logistics*, 36(11), 2869–2888.
<https://doi.org/10.1108/APJML-09-2023-082>