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Risk diagnosis of the Latin American tourism sector from 2020 to 2022

Diagnóstico de riesgos en el sector turístico latinoamericano para el trienio 2020-2022

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ABSTRACT. This article identifies the main risks that could generate crises in the Latin American tourism industry for the 2020-2022 triennium, based on a literature review and a think tank with 38 security experts, within the framework of the 2020 Congress of the Latin American Security Association in Punta Cana. A list of 20 main risks was established of which the group of experts was questioned. A Likert scale was used to define their importance according to their probability or consequences. As a result, it was determined that the main risks that could impact tourism are viruses and pests, natural hazards, sabotage to critical infrastructure, public insecurity, and scandals and rumors. The list was ultimately increased to 27 critical risks as a reference for future studies.

KEYWORDS: economic crisis; Latin America; risk management; tourism crisis; tourism industry

RESUMEN. Este artículo identifica los principales riesgos que podrían generar crisis en la industria turística latinoamericana para el trienio 2020-2022, a partir de una revisión de literatura y un tanque de pensamiento con 38 expertos en seguridad, en el marco del Congreso de la Asociación Latinoamericana de Seguridad (ALAS) en Punta Cana (2020). Se establece un listado de 20 principales riesgos, sobre el cual se interrogó al grupo de expertos y se aplicó una escala de Likert para definir su importancia en función de su probabilidad o consecuencias. Como resultado, se determinó que los principales riesgos que pueden impactar el turismo son: virus y plagas, amenazas naturales, sabotajes a infraestructura crítica, inseguridad ciudadana, y escándalos y rumores. Además, el listado aumentó a 27 riesgos críticos, como referente para futuros estudios.

PALABRAS CLAVE: América Latina; crisis del turismo; crisis económica; gestión de riesgos; industria turística

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Introduction

Thanks to its significant strategic potential, the tourism industry promises to become an important benchmark of national economies in Latin American countries. This industry's development has proven to be a key success factor, given its capacity to generate direct and indirect employment, leverage other economic sectors, and replace the income of current extractive economies (Organización Mundial del Turismo, 2017), as in Mexico (Garza-Rodríguez, 2019), Ecuador (Palacios et al., 2020), and Colombia (Ministerio de Comercio, Industria y Turismo, 2018). In the long term, this is especially strategic because of the imminent depletion of non-renewable primary commodities, such as crude oil.

Thus, it is important to identify potential risks that could lead to crises in this sector. Tourism is highly porous to the influence of risks, not only from the environment but also from situations within each organization. Critical events could impact the dynamics of each of the links in this industry's value chain (Chinchilla & Vorndran, 2018; Epler et al., 2019; Fotiou, 2018, Wilson, 2008).

The first think tank to identify the risks that threaten the tourism industry in Latin America occurred during the Latin American Security Association (ALAS) Security Congress, held on February 20-21, 2020, in Punta Cana, Dominican Republic. This activity has been especially beneficial, given the interaction with the attendees, experts, business people, and those involved in the security sector and security in tourism. With a heterogeneous approach to security, they all contribute their knowledge and experience in constructing a theoretical framework of risks specific to the tourism sector in our region. This holistic approach has supported this academic activity's result, whose objective contributes to the Latin American tourism industry.

This paper's objective is to present a risk diagnosis of the tourism sector in Latin America for the three-year period from 2020 to 2022, resulting from this think tank. Twenty-seven types of risks were identified in this exercise; the main ten were highlighted, on a qualitative scale according to the attendees' considerations. The article is developed and organized into two main parts. The first part is theoretical-conceptual, in which a review is made of secondary sources on the state of the art of *risk* and *crisis* and general information on the tourism sector and its relationship with security in Latin America. The second part, of an empirical nature, presents the think tank within the framework of the event in which the risks for the tourism sector in Latin America were identified. Subsequently, the results are analyzed and presented.

Finally, the conclusions and recommendations of this think tank are presented for consideration by those who make up the tourism value chain. In particular, as guaran-

tors of good practices, Latin American governments should recognize the need to boost the region's income by strengthening this industry, which is a major player in the world economy.

Risk and crisis concepts

Risks are diverse; therefore, a multiplicity of concepts have been generated from associations formed by risk management practitioners from different industries and academics from multiple areas, intending to contribute to the understanding of this discipline (González et al., 2017). This dual approach to the study of risk has caused it sometimes to be conceived as an event with negative consequences, depending on the author. Russell and Arlow (2015) define risk as the possibility of loss or damage. In their research based on the Society for Risk Analysis' review, Aven and Zio (2018) analyze various concepts, concluding that, for the most part, they converge on two elements: an event and its consequences, and each one's uncertainty. Seeking a definition associated with industrial risk, or ERM (*enterprise risk management*), Hopkin (2018) defines a risk a risk as an event with the ability to impact the effectiveness and efficiency of an organization's processes. In this sense, the word *impact* implicitly inhibits, enhances, or generates doubts about the organization's processes.

Among the institutions dedicated to studying risks, the International Organization for Standardization (ISO), in its technical standard for risk management ISO 31000:2018 (ISO, 2018), has defined it as the effect of uncertainty on the organization's objectives. For the Risk Management Institute (IRM, 2010), risk is the probability of an event and its consequences, which may be positive or negative. The Committee of Sponsoring Organizations of the Treadway Commission (COSO, n.d.), in its glossary, defines risk as the possibility that events may occur that affect the fulfillment of strategy and business objectives.

From the perspective of the tourism sector, Chien et al. (2017) analyze the influence of risk perception on travelers' health, regarding which they point out that risk entails loss. When this loss has the potential for high costs, the risk leads to a crisis. Thus, for the mentioned Committee of Sponsoring Organizations, strategic risks can lead to crisis events (Moeller, 2011), adequate risk management would prevent crises (Hopkin, 2018).

For Jiménez and Pérez (2018), a risk for tourists is closely related to their perception of the tourist destination. They contrast this with the definition of tourist safety, understood as the tourist's intention to return safely and in the best conditions to their place of origin, once their desire for enjoyment and pleasure travel has been fulfilled.

For their part, Herrera and Vivas (2018) highlight the environmental and social factors as they relate to the safety of a given location of any type, not necessarily a tourist area. Meanwhile, Quintero (2020) touches on the issue of restrictions to local, national, and international mobility in the context of the current COVID-19 pandemic. This factor undoubtedly affected this economic sector significantly.

The concept of *crisis* emerges in all of the above, not far from the heterogeneity of the concept of *risk* from its two perspectives (institutions and academics). A crisis is understood as a sudden or gradual change causing an urgent problem requiring immediate attention; from a business standpoint, it is a situation with the potential to cause serious and sudden damage to its employees, the company's reputation, and the bottom line (Luecke & Barton, 2004). At the organizational level, the Institute for Crisis Management (ICM, 2020) defines it as an issue, problem, or disruption that causes negative reactions from stakeholders that may affect the reputation or the organization's commercial and financial strength. Crises, then, can be situations that threaten or damage people and property, generate serious disruptions in operations, product recalls, labor problems, social media attacks, lawsuits, highly negative media coverage, or allegations of wrongdoing against employees or leaders (ICM, 2020). A crisis is also defined as a time of organizational instability with a possible undesirable outcome, which may interfere with the normal operations of the organization and, eventually, damage the final result, putting the positive public image at risk, and with the possibility of generating media scrutiny or government scrutiny (Devlin, 2006). Other views focus on the disruptive capacity of the crisis, such as Jordan (2016), who defines it as a triggering event that stops business, alerts or threatens people, and puts their reputation at risk.

For the tourism sector specifically, studies on crisis raise the complexity of conceptualizing the crisis in the sector. On the one hand, the concept of *tourism* itself is related to aspects that denote enjoyment, pleasure, and relaxation (Williams & Balaz, 2015). On the other, the crisis involves factors such as anxiety, fear, disaster, trauma, and panic (Blanco, 2004). With this in mind, Santana (2004) defines it as a process and not an event that develops in its own logic in defined stages, such as pre-crisis, crisis, and resolution or recovery. Ritchie and Jiang (2019) define a crisis in tourism as any event that may threaten the normal operation and sector-related business. These include damaging the overall reputation and affecting safety, negatively impacting visitors' perceptions of a tourist destination's attractiveness and comfort, causing a downturn in the local travel and tourism economy, and disrupting this local industry's business operations continuity by reducing tourist arrivals and expenditures. For Avraham and Ketter (2008), a serious obstacle to attractiveness is the community's association of specific locations with

risks (such as terrorist attacks, natural disasters, epidemics, crime waves, wars, coups d'état, racial conflicts, socio-economic upheavals, or political unrest), which is likely to harm tourism and investment.

The tourism sector and its relationship with security in Latin America

The tourism industry is one of the most representative industries in the world economy. In its 2019 report, the World Travel & Tourism Council pointed out that this industry's contribution to global GDP is 10.4% and proportionally represents 10% of total employment worldwide. Despite an increase in the tourism industry, Latin America and the Caribbean have not yet reached a level of development to positively impact its prominence as a global benchmark. In comparison, the tourism industry in North America and Europe is highly developed; in China, its growth has been 7.3%, placing it among the top three countries globally in terms of revenue.

Table 1 shows tourism's contribution to Latin American countries by GDP, evidencing its importance (Datos Mundial, 2018). However, even in terms of GDP percentage, Latin American countries face challenges in strengthening this important line of the economy and vital source of employment.

Table 1. Share of tourism in Latin America's GDP (2018)

Country	Population (millions)	Total GDP (billions €)	GDP tourism (billions €)	Tourism's participation
Argentina	45.4	440.2	6.00	1.4%
Brazil	216.9	1582.2	6.32	0.4%
Chile	18.8	252.5	3.97	1.6%
Colombia	48.2	280.3	6.62	2.4%
Costa Rica	5.0	50.9	4.00	7.8%
Cuba	11.4	84.7	2.97	3.5%
Ecuador	17.3	91.8	1.88	2.0%
El Salvador	6.2	22.1	1.37	6.2%
Guatemala	17.9	66.4	1.55	2.3%

Table continues...

Country	Population (millions)	Total GDP (billions €)	GDP tourism (billions €)	Tourism's participation
Haiti	11.4	8.2	0.62	7.6 %
Honduras	8.6	20.3	0.72	3.6 %
Mexico	135.2	1033.6	23.8	2.3 %
Nicaragua	6.4	11.1	0.54	4.9 %
Panama	4.2	55.1	5.62	10.2 %
Paraguay	7.1	34.3	0.39	1.1 %
Peru	33.3	188.0	4.89	2.6 %
Dominican Rep.	11.1	72.4	7.56	10.4 %
Uruguay	3.5	50.5	2.44	4.8 %

Source: Created by the authors based on World Data (2018) information.

The tourism industry's contribution to the economies of countries such as the Dominican Republic and Panama is noteworthy. Their tourism revenues represent 10% of their GDP, placing them at a level with the average share of tourism in global GDP. These countries are followed by Costa Rica, with an 8% share of GDP. In contrast, in the rest of the Latin American countries, tourism revenues represent an average of 4% of their GDP, placing them well below the world average.

According to the *Travel and Tourism Competitiveness Index 2019* (Foro Económico Mundial, 2019), security is one of the enabling factors for developing a region's tourism industry. In this report, the Americas ranks third among the five regions evaluated, in the following order: 1) Europe and Asia; 2) the Asia Pacific; 3) America; 4) the Middle East and North Africa; and 5) Sub-Saharan Africa. The fact that the United States ranks fifth globally may explain the American continent's representativeness, while Latin America faces a major challenge in this regard. Table 2 details the four dimensions of the index covered by the evaluation.

Table 2. Dimensions of the *Travel and Tourism Competitiveness Index 2019*

Dimension	Subdimensions or components evaluated
Enabling environment	(1) Business environment (2) Health and safety (3) Hygiene and safety (4) Human resources and labor market (5) ICT readiness
Travel and tourism policy	(6) Travel and tourism prioritization (7) International openness (8) Price competitiveness (9) Environmental sustainability
Infrastructure	(10) Air transport infrastructure (11) Port and land infrastructure (12) Infrastructure of tourist services
Natural and cultural resources	(13) Natural resources (14) Cultural resources and business travel

Source: Created by the authors based on the World Economic Forum (2019).

The reality of the tourism industry's development and potential is apparent when evaluating the Latin American countries in each of the 14 subdimensions within 90 indicators. In this scenario, Mexico is the only Latin American country in the *2019 Travel and Tourism Competitiveness Index's* global scale top 20 (Foro Económico Mundial, 2019) (Table 3).

Table 3. Position of Latin American countries in the tourism potential global ranking

Country	Score	Position	Country	Score	Position
Mexico	4.7	19	Uruguay	3.8	74
Brazil	4.5	32	Bolivia	3.5	90
Costa Rica	4.3	41	Nicaragua	3.5	91
Panama	4.2	47	Honduras	3.5	94
Peru	4.2	49	Guatemala	3.4	99
Argentina	4.2	50	El Salvador	3.2	108

Table continues...

Country	Score	Position	Country	Score	Position
Chile	4.1	52	Paraguay	3.2	109
Colombia	4.0	55	Venezuela	3.1	117
Ecuador	3.9	70	Haiti	2.8	133
Dominican Rep.	3.8	73			

Source: Created by the authors based on the World Economic Forum (2019).

Thus, Latin America faces significant challenges to improve its position in the indicators evaluated to achieve better development and growth in tourism by contrast to the totality of its economies. Security and international openness to business are the variables that most negatively impact Latin America, well below the world average. This situation correlates closely with the fact that, on a global scale, safety is one of the lowest scoring factors with the most negative impact on the tourism industry.

According to Judd (2006), tourism is understood as the range of products and services that interact to provide the opportunity to fulfill a tourism experience, comprising tangible and intangible parts. He indicates that natural assets in destinations are used successfully to promote particular tourism products. In this regard, Latin America has a wide range of tourism offerings, which, according to this author, are the components of greatest demand, such as sun, sand, and *surf*, or the environment, culture, and medical and commercial services.

The tourism industry involves many stakeholders in its value chain; according to the World Travel & Tourism Council (2019), it employs more than 319 million people worldwide. The strengthening of the sector depends on this value chain's evolution, which has been defined as shown in Table 4 (Christian et al., 2011).

Table 4. Tourism industry value chain

Countries	Tourist activity	Type of organization	Tourist assets
Country of departure	Distribution	Travel Agent Tour operator Independent agent	
	International transportation	International air carrier Cruise ship	

Table continues...

Countries	Tourist activity	Type of organization	Tourist assets
Country of arrival	Distribution	National travel agency	Biodiversity
		National tour operator	Cultural heritage
		Local tour operator	Historic sites
	Regional transportation	Domestic air carrier	Services
		Ground transportation services	Business
Lodging		Luxury hotels	Other assets
		Large hotels	
		Small hotels	
Tours		Tour operators	
		Local guides	
		Retailers	

Source: Adapted from Christian et al. (2011).

The tourism industry's value chain allows us to infer that each link involves a series of risks associated with its political, economic, social, technological, environmental, and legal environment, as well as its internal dynamics. The latter are the risks that are mainly related to its strategy, operation, and legal compliance. Foreseeing this, Glaesser (2003) proposed the systemic model of tourism based on these components, where the legal and political fields are involved in the same sphere and could entail different varieties of risks.

Each risk transcends its surroundings within the systemic approach to the tourism industry if one considers Aven and Zio's (2018) concept. It defines risk as the uncertainty of losses from an event with negative consequences. This implies that, within this complex environment for tourism organizations, the internal or external environment is influenced by this critical symbiosis of factors that could produce negative outcomes. Cases like the ones shown in Table 5 illustrate the tourism sector's complex environment globally.

Table 5. Major risk events in the global tourism industry (Jun. 2015 - Jan. 2020)

Place/date	Situation	Source
Colombia (Jan 2015)	Oil crisis hits hotel sector	<i>El Nuevo Siglo</i> (2015)
Venezuela (Oct 2015)	Unemployment due to hotel expropriations and closures	Observatorio de Derechos de Propiedad (2015)

Table continues...

Place/date	Situation	Source
Europe (Mar 2016)	Decrease in travel to Europe after terrorist attacks	Hosteltur (2016a)
Portugal (Jun 2016)	Impact on tourism sector due to fire	Hosteltur (2016c)
Miami (EE. UU) (Sep 2016)	Zika virus epidemic	Hosteltur (2016b)
Puerto Rico (Sep 2017)	Interruption of tourism due to hurricanes	Hosteltur (2017)
Panama (Apr 2019)	Crisis in the domestic sector due to lack of international promotion	Douglas (2019)
Venezuela (Jun 2019)	Faults in public services	Fedecámaras (2019)
Dominican Republic (Jun 2019)	National crisis over death of U.S. tourists	Romero & Bogel-Burroughs (2019)
Colombia (Jul 2019)	Cartagena affected by micro-trafficking and prostitution	<i>Reportur</i> (2019)
Mexico (Aug 2019)	Sargassum crisis	Infobae (2019)
Australia (Jan 2020)	Fire crisis	Hosteltur (2020)
Chile (Jan 2020)	Tourism plummets due to social unrest	<i>El Cronista</i> (2020)

Source: Created by the authors

This sample of events that have affected the tourism industry in recent years clearly shows the impact of risks on this economic sector and the impact on the aggregate figures of their respective national economies. In this sense, risk management becomes a priority factor in preventing future crises. As an example, it is worth citing Bassols (2016), who demonstrates an inverse correlation between levels of terrorism in Colombia (classified by eras or seasons) and the number of international tourist arrivals (Table 6).

Table 6. Periods of terrorism in Colombia vs. international tourist arrivals

Period	Intensity of terrorism	Total arrivals (in millions)	Growth in arrivals
1969-1981	Low	7.27	227%
1982-1995	Medium	12.32	78.9%
1996-2002	High	4.20	-66.5%
2003-2014	Decreasing	16.10	142.6%

Source: Adapted from Bassols (2016).

Method for the think tank

The think tank was developed using mixed research. Risks that could impact the global and Latin American tourism industry were identified from different sources and reports derived from research reports. A total of eight sources were consulted, focusing on 1) documents specifically concerning tourism sector-related risks and 2) documents concerning risks that could have a general impact without discriminating a specific economic sector.

To achieve this work's objective, all the risks from the sources were grouped and consolidated into a single list to avoid duplicity in concepts with possibly ambiguous interpretations. This list was included in a five-point Likert scale questionnaire to identify the ranges of each risk in the tourism industry. A brainstorming session was then conducted to include new risks not contemplated in the analyzed sources to broaden the spectrum of risks that must be managed in this sector. The think tank participants were professionals in different disciplines with more than three years in the Latin American security industry (representatives of private and electronic security service companies and security managers in some link in the tourism chain), for a total sample of $n = 38$ participants.

The results were analyzed quantitatively using SPSS *software*; the instrument was validated using Cronbach's Alpha, obtaining a result of 0.89. The aim was to determine the risk categories that could impact the tourism industry in this region in the next three years. The descriptive statistics were summarized in two tables: one that discriminates all types of risk and another that presents them in aggregate form by area, following the PESTEL methodology (political, economic, social, technological, environmental, and legal risks).

Risk identification for the Latin American tourism sector

Based on the literature analyzed on the topic of crisis, an innovative definition was proposed for the rigorous development of the questionnaire, grouping risk as a fundamental element before the occurrence of crises. Consequently, a crisis was defined as a situation arising from the manifestation of a high-impact risk in terms of its potential to seriously affect any of the organization's components: people (stakeholders), assets (tangible or intangible), facilities, reputation, continuity of processes, products or legal compliance. Several of these may be affected simultaneously or in cascade, leading to a total or partial interruption of operations, requiring a timely and adequate intervention aimed at recovery.

Several scientific documents and research reports were considered and analyzed to identify the risks of the tourism sector in Latin America. A general list of the main risks was created, unified, and harmonized, avoiding duplication of concepts from different documents referring to the same risks. This list of risks was included in a 5-point Likert scale questionnaire. Table 7 shows the tourism industry risks identified according to their sources or authors.

Table 7. Risks identified in the Latin American tourism sector

Source/Authors	Risks identified
Yue et al. (2020)	Coronavirus and other types of viruses
World Economic Forum (2020)	Extreme climate, failure of climate action, natural disasters, loss of biodiversity, weapons of mass destruction, human-caused environmental disasters, political polarization, recession of an economy, water crisis, involuntary migration, unemployment, social instability, fiscal crises, terrorist attacks, national governance fails, critical national infrastructure fails, and infectious disease.
Glaesser (2003)	Epidemics, currency fluctuation, natural threats, terrorism, water pollution, crime waves, hotel overbooking, reduced number of flights, kidnapping, hostage-taking, homicide, or violent death.
Epler et al. (2019)	Climate change, depletion of natural and socio-cultural resources, inability to have local ownership of land, and lack of funds and knowledge to monitor tourism risks.

Table continues...

Source/Authors	Risks identified
Granger (1999); Walker & Page (2003); Fotiou (2018)	Epidemics, plagues, fires, accidents, crime and terrorism, political conflicts, economy, natural hazards, theft of personal items, sickness and hospitalization, and death.
Richter (2003); Sönmez et al. (1999); Basala & Klenosky (2001)	Crime or theft at the place of travel, difficulty in communication, getting sick while traveling, and social demonstrations due to political issues.
Risk Management Index for Latin America and the Caribbean (Unicef, 2018)	Earthquake, tsunami, flood, tropical cyclone, environmental degradation and drought, conflict, violence, and migration.

Source: Created by the authors.

The above risks were analyzed and consolidated for consulted expert validation as follows: 1) viruses (e.g., coronavirus), animal or plant pests; 2) extreme weather (climate change); 3) natural and environmental disasters; 4) weapons of mass destruction; 5) polarization and political conflicts; 6) economic recessions; 7) involuntary migration; 8) unemployment; 9) social instability (protests, riots, insurrection); 10) fiscal crises; 11) terrorist attacks; 12) national governance fails; 13) insufficient energy or other infrastructures; 14) flight reduction or cost increase; 15) illicit tourism service platforms; 16) excessive charges for formal and informal tourism services; 17) kidnapping, hostage-taking or homicides (citizen security); 18) critical hotel assets sabotage (water, energy, and food); 19) personal items theft; 20) scandals, rumors, and information dissemination in networks.

Think tank results

Once implemented at the ALAS Punta Cana 2020 Security Congress, the instrument was used to obtain the participation of various security professionals, reaching a sample of $n = 38$ for the think tank. In general terms, the participants at the event were business people from the sector, from private security and electronic security companies that provide services to the tourism industry in several Latin American countries; others were security directors within the tourism chain's links. After the instrument was applied, a validity test was carried out using Cronbach's Alpha, which yielded a favorable result of 0.89, indicating that the instrument was validated.

Table 8 shows the descriptive statistics processed in SPSS *software*, reflecting the risks that could have the greatest impact on the tourism industry in the next three years in hierarchical order according to their probability of occurrence and consequences. Table 9 shows this information aggregated by area, according to the PESTEL methodology.

Table 8. Descriptive statistics of the survey results

Risk	N	Min.	Max.	Median	Standard deviation
Viruses and pests	38	3	5	4.7105	0.56511
Natural hazards	38	2	5	4.2105	0.90518
Critical infrastructure/ value chain sabotage	38	1	5	4.1316	1.11915
Homicide, kidnapping, and hostages	38	1	5	4.1316	1.06976
Scandals and rumors	38	2	5	4.1053	0.92384
Terrorist attack	38	1	5	4.0000	1.23025
Weapons of mass destruction	38	1	5	3.9737	1.12675
Governance fails	38	2	5	3.9211	0.96930
Social instability	38	2	5	3.8947	0.92384
Overcharges for informal SSTTs	38	1	5	3.8684	1.04419
Reduction of flights	38	1	5	3.8158	1.11149
Climate change	38	2	5	3.7895	0.96304
Theft of personal items	38	2	5	3.7105	0.92730
Illicit tourism platforms	38	1	5	3.6842	1.21043
Economic recession	38	1	5	3.6579	1.07241
Political polarization	38	1	5	3.6316	1.07606

Table continues...

Risk	N	Min.	Max.	Median	Standard deviation
Energy insufficiency	38	1	5	3.5789	1.13021
Fiscal crisis	38	1	5	3.5000	0.97952
Unemployment	38	1	5	3.4474	1.08297
Involuntary migration	38	2	5	3.3421	1.02077

Source: Created by the authors.

Table 9. Aggregate risks according to PESTEL methodology

Type	Risks identified	Median
Environmental	Viruses, pests, animal or plants, extreme weather, natural and environmental disasters, garbage and waste contamination	4.23
Social	Involuntary migration, social instability, terrorist attacks, overcharging for informal tourism services, kidnapping, hostage-taking, homicide, sabotage of critical hotel assets, theft of personal items, scandal, rumors and dissemination of information in networks, unsafe conditions related to labor risks in the value chain, road accidents, inefficient health services, death of tourists, sponsorship of child pornography	3.90
Political	Weapons of mass destruction, polarization and political conflict, national governance fails	3.84
Economic	Economic downturn, unemployment, flight reductions or cost increases	3.73
Technological	Energy shortage or other infrastructure, illicit tourism service platforms, IT risks	3.63
Legal	(No information)	N/A

Source: Created by the authors.

The results obtained indicate that, above natural hazards, *biological hazards*, such as viruses and pandemics, are the main risk to the tourism sector. This result differs from the analysis in the World Economic Forum report, which ranks natural hazards higher. It makes sense and is only natural that there was already a bias among the participants at the time of this exercise (February 2020), as COVID-19 had already gone

from being a latent threat to a real one by then. This result is particularly interesting; it places the tourism industry at a clear disadvantage given the recognized impossibility of implementing preventive plans. These types of threats from the external environment or context are especially difficult for members of the value chain to prevent. In this scenario, the tourism industry itself is directly affected, as it is conceived as one of the primary transmission channels of any virus. At the time of the think tank, the COVID-19 virus's imminent arrival was already being experienced in Latin America.

Natural hazards are in second place. These threats derived from natural phenomena such as earthquakes, tsunamis, hurricanes, and other scenarios of considerable impact produce consequences, in some cases catastrophic, in large cities or areas of high tourist convergence. In the third place is the *sabotage of critical infrastructures or strategic assets* of the value chain. These produce severe impacts on airports, cruise ships, and hotels, whose operational dynamics involve equipment and assets vital for their customers' safety and health. These include water tanks, electrical system supplies, and aircraft power supplies.

In the fourth place are the risks associated with *citizen insecurity*, mainly high impact occurrences usually given greater prominence in the news, such as kidnappings, homicides, and hostage-taking. In this regard, several studies agree on the impact of security in Latin America in different tourist cities (Azardun et al., 2020; Ortiz & Hernández, 2018; Agudelo-Rivera et al., 2019, among others).

In the fifth place are *scandals and rumors*. This type of risk is in vogue, given the rise and penetration of mass media and especially social networks, which can provide altered, modified, or low-credibility information. Notwithstanding credibility, they can strongly affect any member of the tourism value chain or even on a region whose impacts and losses are of considerable magnitude. Finally, among the risks rated between 4 and 5 on the scale is *terrorism*, a risk derived from threats of various kinds, including illegal groups, drug trafficking cartels' penetration in cities, and the possible arrival of extremist groups in Latin America.

Among the risks nearing Rating 4 were *weapons of mass destruction*; this is consistent with previous studies such as Watson's (2017) regarding Iran's contact with Latin American countries not geopolitically aligned with the United States for a decade, which could materialize in some kind of arms assistance. Despite this, the Treaty of Tlatelolco declared Latin America a nuclear-weapon-free zone since 1967, a treaty to which many nuclear powers have been bound (Abbasi & Aziz, 2016). It should be clarified that this treaty only covers nuclear weapons, excluding biological and chemical weapons. Therefore, different authors, such as Coutto (2013), Escobar and Vega

(2008), and Argote et al. (2019), have warned about the risk situation in the region derived from this type of weapon.

Other risks close to a rating of 4 were *governance failures*. These are posed by the citizens' growing dissatisfaction with current government models and institutions' growing delegitimization, resulting from the increased social gaps, discontent, and crisis of the elites (Sanahuja, 2017). Another was *social instability* resulting from the failure of governance or manipulation of the youth to generate urban chaos, polarization, or the disruption of social tranquility. The last one was *excessive charges for informal tourism services*. It involves the interests of people who informally control tourist attractions or resources, such as beaches, informal transportation systems, informal food, and sometimes overcharge tourists, weakening the regional or local image and negatively impacting the value chain.

Paradoxically, risks associated with hotel services platforms and informal transportation were not considered high risk for tourism. Similarly, involuntary migration had a very low score, showing that this is more the result of a stigmatization process and not a factor of analysis for the tourist when choosing a tourist destination. This concept is consistent with Calero-Lemes and Garcia-Almeida (2020), who state that immigrants can, in fact, offer their knowledge prior to the migration process to strengthen the tourism industry. Another aspect of interest is Latin America's awareness of global climate change; given the results obtained, it is not perceived as an immediate threat to the tourism sector. However, this does not imply that it is of little relevance at the global and national levels.

It should be clarified that the results obtained in the top ten positions do not imply that the other risks are less important. Rather, because of these risks' probability of occurrence and the global situation and outlook at the time of the think tank, they were considered the most influential for the 2020-2022 triennium. Obviously, these risks must be considered in their totality to prevent them, given the uncertain and changing political, social, and technological environment, as well as environmental and legal factors, especially in the post-pandemic social, economic, and health scenarios. In this sense, these results show that governance is a highly influential factor in social risks, converging with Uyar et al.'s (2019) approach.

In addition to the 20 risks initially identified, the think tank group recommended that the tourism industry also consider the following: 21) dangerous safety and health conditions in the value chain, 22) road accidents, 23) IT risks, 24) inefficient health services, 25) tourist deaths, 26) garbage and waste contamination, and 27) child pornography sponsorship. These additional risks make up a total of 27 potential risks for the Latin American tourism industry.

Finally, it is worth contrasting these results with those of a few years ago when, in general, the most dominant perceived risks in Latin America were terrorism-related, certainly the case in Colombia. Now, they have changed to other risks, namely contagious diseases (given COVID-19's obvious influence) and natural catastrophes.

Conclusions and recommendations

The tourism value chain represents substantial revenues globally. Although competitiveness has improved in Latin America, there are still several challenges to overcome. The Latin American tourism industry must assume a risk management-oriented posture to fulfill each link in the value chain's strategic objectives. The ALAS Punta Cana 2020 Security Congress think tank contributed to risk management by identifying 27 types of risks related to this industry that could affect its value chain. Of these 27 risks, ten stand out in particular. Their probability or impact factor places them at a high level of attention and monitoring.

Among the main risks assessed, viruses and pests occupy the first place. Given the research's timing, its results fully align with research conducted in late 2019 and the emergence of COVID-19 in China, and its rapid spread throughout the rest of the world. The other most concerning risks to the tourism sector are natural hazards, sabotage of critical tourism and hotel assets, risks associated with citizen insecurity, scandals and rumors, weapons of mass destruction, governance failures, social instability, and excessive charges for informal services. Each member of the value chain must study these risks, especially for the 2020-2022 triennium.

For all of the above reasons, Latin American countries must develop prevention plans that link each member of the tourism industry value chain by creating regional committees aimed at prevention and contingency management to prevent possible crisis scenarios.

In this regard, the following recommendations are proposed for the Latin American tourism industry, especially for governments and members of the value chain and its stakeholders:

1. The Latin American and global tourism industry has found in COVID-19 a transcendental threat with unforeseen potential. It must serve as a first learning scenario to include prevention and resilience factors in business continuity plans. It is vital to ensure that the tourism industry is not seen as a potential transmission sector; on the contrary, its areas should serve as safe hospitality zones for tourists. In this regard, there is still much to be defined to meet this challenge.

2. In line with the first recommendation, emergency plans, solid brigade corps, and practices at all levels in emergency management must be created to strengthen and generate a culture of safety in the members of the tourism value chain, especially in airports, ground transportation, cruise ships, and hotels.
3. A vital factor is identifying the assets and areas of greatest risk for the stakeholders in the national and tourism value chain to guarantee permanent and safe service quality and care for the tourist's health. In cruise ships, hotels, and airports, these critical areas must have protection mechanisms according to the risk assessment.
4. Beyond the typical generic methodologies, the tourism industry urgently requires its own methodology to assess security risks to provide a scale for measuring the variables with the greatest impact on risk, including threats, vulnerabilities, and consequences. In this regard, future research on risks in the industry can be more precise in terms of probability and consequence.
5. Undoubtedly, hotels, airlines, and other value chain members must connect through a high disclosure information component in cyberspace. This site will allow real-time monitoring of fraudulent information threats and provide a secure means of participation through highly credible official channels on social networks.
6. There must be cooperation between the departments in charge of security in the cities and the tourism industry stakeholders to manage the sector's security. In this sense, the enactment of appropriate collaborative policies with public entities is essential. They should be monitored by tourism industry representatives and local government delegates to evaluate progress in each of the objectives and strategies formulated.
7. The government and state leaders' responsibility should have two objectives. The first is to guarantee transparent governance and avoid political and social polarization. In this aspect, Latin America faces its greatest challenge. The second is to give tourism the importance it deserves, elevating it to each nation's critical infrastructure.
8. Finally, it is recommended that crisis information management be improved. Although it is not a safety issue in the strict sense, it is a critical component in disasters, regardless of their nature.

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