TOURIST BEHAVIOR DURING COVID 19 PANDEMIC: A Systematic Review And Future Research Agenda

Abstract:

During the COVID-19 outbreak, tourism has been significantly limited due to imposed government restrictions, with travel being considered a high-risk activity. Moreover, tourist behavior and preferences changed during the covid-19 pandemic

The current systematic literature review gathers and synthesizes research records of the last 2 years (2019–21) on tourists' behavior concerning during covid 19 pandemic. We used PRISMA as a protocol to conduct this systematic literature review. The synthesis provides a detailed account of the tourist'stourists behavior during covid 19 pandemic, their antecedents and consequences, behavior changes, and future research potential in the said domain.

Keywords:

Tourist behavior, covid 19, systematic review.

I. INTRODUCTION

The COVID-19 pandemic has severely disrupted the global economy including the tourism industry. Proclaimed as a pandemic on 11 March 2020 by the World Health Organization (WHO). As of February 2021, the number of people infected continued to grow. To combat the pandemic, numerous countries implemented lockdown strategies with varying degrees of success. Strategies adopted as part of lockdown policies have included the suspension of international flights, shutting of restaurants, museums, sporting events, religious services, and tourist attractions. Tourism, an industry that has relatively low levels of resilience to long-running crisis

events, eventshasevents havehas been severely affected by the pandemic (Dhir et al., 2019).

Tourism is an industry concerned with the movement of people both domestically and internationally. While the surge in demand for travel has accelerated the scale of tourism flows, the tourism industry is highly sensitive to external crisis events such as pandemics, terrorist activities, natural disasters financial crises, wars, and other factors that affect international tourism flows. Public health concerns can generate considerable fluctuations in demand for international travel. In situations such as those that have occurred during the COVID-19 pandemic, virus transmission routes and speed of infection, the sophistication and complexity of transportation networks, the characteristics of population movement, urbanizationurbanisation trends, the quality of national medical and health services, and pandemic control measures can affect how both the supply and demand sides of tourism are affected (Prideaux & Master, 2001)

In this fertile context, international tourist arrivals exploded, from just 25 million in 1950, to 1.5 billion in 2019 (+4% compared to the previous year) (https://www.unwto. org/international-tourism-growth-continues-to-outpace-the-economy, 8 October, 2021). According to the same international body (UNWTO), in the same year (2019), tourism became the third largest export category, growing faster than the world economy. Then, in early 2020, SARS-CoV-2 almost stopped the world. The impact on tourism was devastating (USD 2 trillion losses in global GDP, USD 1.3 trillion losses in tourism receipts) (https: //www.unwto.org/covid-19-and-tourism-2020, 8 October 2021). Tourism registered an unprecedented fall of 73.9% in 2020, bringing the sector close to its 1990s level (SARS (2003) generated a fall in international tourism of 0.4%, while the global economic crisis (2009) caused a fall of 4%) (https://www.unwto.org/covid-19-and-tourism-2020, 8 October 2021). This plunge continued in 2021, with the data showing a decline of 87% in international arrivals in January 2021, compared to January 2020 (https://www.unwto. org/taxonomy/term/347, 8 October 2021) (Morar et al., 2021).

Morar, et al., (2021) found that participants traveled less in the pandemic year than the year before—especially group and foreign travel—yet more participants reported individual traveling in their home county during the pandemic period.

Distinct types of exposure to COVID-19 risk, as well as cognitive and affective factors, were related to travel behavior and preferences. However, a fun-seekingfun-seeking personality was the only major predictor of travel intention, while fear of travel was the only predictor of travel avoidance. Instead, people traveled more cautiously when they perceived more risk of infection at the destination, and had higher levels of fear of travel, but also a high sense of efficacy in controlling the infection and problem-solving capacity (Morar et al., 2021)

Public authorities have implemented policy-levelpolicy level actions and strategies (closing schools, online teaching, home working, closing stores and restaurants, etc.). to control the virus spreading,

As the people's mobility was spreading the virus, restraining mobility was also a key mitigation policy, so measures included closing international borders, closing airports, limiting community contacts, and restricting international travel as mitigation policies.

In addition, in an effort to limit travel, social restriction measures were imposed on public meetings, social, sporting, and cultural events, and public transportation or taxi operations. The imposed mobility restrictions were implemented in accordance with different local cultures, administrative organizations, and socioeconomic conditions. These mobility restrictions were applied at different administrative levels: international (e.g., closing countries), national (e.g., closing regions and cities), regional (e.g., city lockdowns), and local (e.g., restraining walking or motorized transportation, closing public places). The restrictions seriously affected the diverse travel needs (tourism, working, shopping, etc.), which further generated changes in travel behaviors and daily travel activities (e.g., shopping routines, recreational activities, heritage explorations) as the impact of fairnessfearness.(Awad-núñez et al., 2021).

To build a comprehensive understanding of tourist behavior during covid 19 pandemic which has been being an interesting issue, this study will present a systematic review of the subject that will systematically be collectedcollected, analyzed, and synthesized inat the last 2 - yearsyear (2019-21) by making tourist behavior during covid 19 pandemic as a focal point.

We endeavored to find answers to the following research questions to provide useful insights:

1. What are the research designs and theories applied by researchers? ~~researchers.~~
2. What are the dimensions, antecedents, and consequences concerning the constructs related to tourist behavior during the covid 19 pandemic.
3. What are various future research directions? ~~directions.~~

Overall, this study contributes to literature at two levels. First, our systematic review identifies a comprehensive set of tourist behavior during the covid 19 pandemic and their antecedents and consequences of the constructs related to the subject. Second, it identifies various future research avenues for upcoming academic researchers. The rest of the study is an effort to find answers to the above- stated questions.

II. METHOD

Sweet and Moynihan (2007) have defined systematic review as "to provide a systematic, transparent means for gathering, synthesizing and appraising the findings of studies on a particular topic or question. The aim is to minimize the bias associated with single studies and nonsystematic reviews." Therefore, the systematic review starts with an objective and explicit question thatwhich needs to be addressed via systematic and transparent data collection and synthesis (Moynihan, 2007.)

The current study adopted the Preferred Reporting Items for Systematic Reviews and Meta- analyses (PRISMA) proposed by Moher, Liberati, Tetzlaff, and Altman (2009). PRISMA provides a roadmap to report a systematic review in a transparent, objective, and explicit way. Furthermore, the PRISMA statement suggests the information flow in four phases: identification, screening, eligibility, and inclusion.

The identification of records is the first stage of the PRISMA protocol. The critical issues in identification are what, how, and where to find it. The research question provides the basis for identification. The electronic search was conducted in

December 2021 by using databases of Web of Science, Science Direct, Emerald, and Google Scholar. These electronic databases provide coverage for research publications in the related disciplines. All records identified from various online sources were screened to exclude duplicates or unrelated items. We identified as many records as possible to avoid missing any vital study. This concept is called sensitivity at the initial stage of the screening (Siddaway et al., 2019.).

After the initial screening, we assessed the remaining full-text articles for eligibility to include in the qualitative synthesis. The assessment was based on eligibility criteria. The inclusion or exclusion criteria were based on the objectives of our study. Finally, for data extraction and qualitative analysis, we used Endnote and Microsoft Excel applications. A data extraction form was also designed to extract and arrange information for qualitative synthesis.

III. RESULT

III.1. Characteristics of Studies

The search strategy yielded a total of 20 full-text records. Of total records, 5 studies were removed because of duplication, 1 study was marked markmarkedmark as ineligibleineigible by automation tools, and 14 studies were screened after reading titles and abstracts. After screening, we found 14 full-text articles for assessment. After applying exclusion criteria on full-text records, 2 studies were further excluded. Finally, 12 studies were included in the qualitative assessment and synthesis.

Record identification from Keyword: (tourist behavior covid 19). Database (Scopus, n=20). Record removed before screening Duplicate records removed (n=0). Records markedmark as ineligibleineigible by automation tools [The yearYear 2019-2021] (n=1). Record removed for other reasons [Tier Q1, Q2, Q3, Q4] (n=5). Record screened (n=14). Records excluded (n=0). Reports sought for retrieval (n=14). Reports not retrieved (n=2). Reports assessed for eligibility (n=12).

The quality synthesis resulted in several findings and themes. These findings are divided into five categories, the main findings (year, publication and country, theory held, and research design elements). 'Tourist behavior during the covid 19

pandemic' was identified, along with antecedents and consequences, observations, and directions.

The qualitative research design was found most popular among researchers as 58 % (7 eligible eligible~~eligible~~eligibled articles) opted~~of research articles opted~~ for the qualitative method~~,~~ so ~~that~~ they cannot be included in the systematic literature review due to the only quantitative approach studies using use using used~~used~~using~~used~~ structural equations which can be included.

In the final set, there were 5 studies that studies~~could~~studies ~~could~~ be reviewed in the systematic literature review. We included studies for years ranging from 2019 to 2021.

The yearly progression of publications can be viewed in Fig 1. Of the total studies, most were published in the last ~~one~~ year. Moreover, an increasing trend was found throughout the period. The maximum number of studies (4) was published in the year 2021 and the minimum (1) was published in 2020. No study could be found in the year 2019.

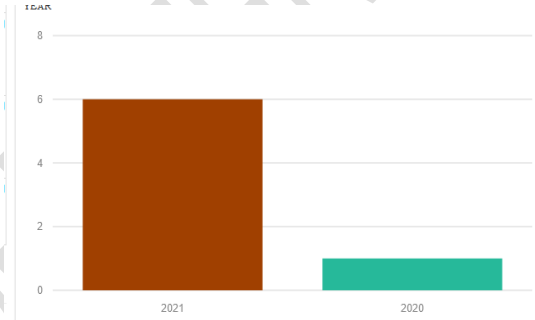

Fig 1. The yearly progression of publications

An interesting finding was about the country of publication. Korea produced the most studies (2 studies or 40%). Different studies were published in different countries. There were 5 countries that published research on~~in~~ that subject, namely China, South Korea/ Korea, Serbia, and the USA and~~USA~~~~and USA~~ (see table 1).

Context Area	China	South Korea	Korea	Serbia	USA	Number of article
Cruise tourists			Xu 2021.			1
Risk perception	Chen 2021.					1
Tourist –outbound travel behavior					Chua 2020.	1
Risk perception				Brati, 2021.		1
Risk Reduction BehaviorBahavior		Seong 2021.				1
Total	1	1	1	1	1	5

Source: Author (2021)

Table 1. Context 0f research area vs Author vs country of publication.

The most researched areas of research are in the context of risk-: risk perception (2 articles) and risk reduction behavior (1 article) followed by cruise tourists and tourist outbound travel behavior. Natural tourism and marine tourism are still in demand by tourists during the pandemic C19. (see table 1)

The survey method was adopted by 100% of articles. Data analysis is a crucial activity to arrive at results and conclusions. Structural equation modeling (SEM) was applied by the all of the studies (see table 2),

Focus Research Area	SURVEY	Quantity
Corporate social responsibility responsibilityresponsibilityresponsibilit	Chua 2020.	1
Expatiates practical strategies for managing nature-friendly tourist spaces such as national park	Seong 2021.	1
Predicting latent cruise travelers travelerstravelers'travelers decision-making process in the COVID-19 pandemic	Xu 2021.	1
Responsible tourism behavior	Chen 2021.	1
Tourist vacation behavior.	Brati, 2021.	1
Total		5

Source-: Author (2021)

Table 2. Focus Research Area Vs Research Method vs Quantity of research.

The topic of environmentally friendly behaviour dominated the focus area of the studies during the pandemic (60%), another interesting topic is a vacation planning

III.2. Theories

This review provides beneficial insights into the underpinning theories applied in the area of tourist behavior during the Covid 19 pandemic. A higher number of researchers considered the theory of planned behavior, followed by the Model of Goal-Directed Behavior, and the remaining considered no specific theory.

TPB proposed by Ajzen (1991), attitude is coined as an individual judgment based on an individual's favorability to perform a particular action. A subjective objectivesubjectiveSubjective norm is a behavior that relies on the approval or disapproval of other people. Perceived behavioral control refers to how individuals discern the ease or difficulty of completing such action. While attitude and subjective normsnorm can be categorized as volitional elements, perceived behavioral control is regarded as a non-volitional component. The empirical literature shows that attitude, subjective norm, and perceived behavioral control jointly improve the predictive power of behavioral intention in pro-environmental and pro-social behavior (Kim & Han, 2010)

The Model of Goal-Directed Behavior (MGB) posits that desires provide the direct impetus for intentions and transform the motivational content to act embedded in attitudes towards the act(ActAact), anticipated emotions (AE), subjective norms (SN) and PBC. The frequent frequencyfrequencyFrequency of past behavior behaviorbehaviorbehaviour is further assumed to be a predictor of desires, intentions, and behavior behaviourbehaviorbehaviour, whereas recency of past behaviorbehaviour predicts behaviorbehaviour only. As argued below, the introduction of anticipated emotions broadens the TPB by including new decisionnewdecision criteria with respect to a person's goals. The incorporation of desires deepens the TPB by reinterpreting how existing antecedents in the theory function (Perugini & Bagozzi, 2001).

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Underpinning Theory	Corporate Social Responsibility	Expatriates~~Expatiates~~ Practical Strategies For Managing Nature-Friendly Tourist~~Nature-Friendlytourist~~ Spaces Such As National Park	Predicting Latent Cruise Travelers' Decision-Making process~~Makingprocess~~ In The Covid-19 Pandemic	Responsible Tourism Behavior	Tourist Vacation Behavior.	Quantity~~Quantity~~
Model of Goal-Directed Behavior			Xu 2021.			1
No specific theory~~heory~~	Chua 2020.				Brati, 2021.	2
Theory of Planned Behavior		Seong 2021.		Chen 2021.		2
Total						5

Source : Author (2021)

Table 3. Underpinning theory vs Focus research area vs Author

III.3. Synthesizing 'Behavior"

Behavior factors, whose meaning is expanded on behavior intention, in this study has found, (behavior intention after C19, behavior intention during C19, visit Intention, reduction behavior, responsible behavioral intentions, health preventive behavior, and approach behavior intention), provided the basis for our analysis.

III.4. Antecedents and consequences

The antecedents can be divided into four groups.: (1) antecedents related to risk : Perception~~Perceptipn~~ of C19/ C19 perception (Su et al., 2021; Seong & Hong, 2021) (X. Chen, 2020); perceived susceptibility (Meng et al., 2020), knowledge in travel risk (Y. Chen et al., 2021), cues to action (Meng et al., 2020), (2) antecedents related to responsibility~~-~~: perceived behavior control (Seong & Hong, 2021; X. Chen, 2020)~~-~~; perceived response effort (Meng et al., 2020)~~-~~, corporate social responsibility (CSR) (Meng et al., 2020), (3) antecedents related to affection~~afection~~ : desire (Xu et al., 2021)~~–~~, perceived self-efficacy~~self efficacy~~ (Meng et al., 2020) , (4)) antecedents related to attitude: attitude (Seong & Hong, 2021), behavioral attitude (X. Chen, 2020), operation non pharmaceutical~~phamaceutical~~ intentions (Xu et al., 2021). Nevertheless~~Neverthele~~s, behavior has~~have~~ no consequences~~consequences~~~~no any consequences~~ in this study.

Antecedents, consequences, and behavior factors are revealed in table 4 below :

Path	Anteseden	Behavior	Consequence	Author
1	Desire	BI after C19		Xu,2021
1	Perception~~Perceptipn~~ of C19	BI during C10		Xu,2021
2	Operation non Pharmaceutical~~Phamaceutical~~ Intentions	BI during C10		Xu,2021
3	Desire	BI during C10		Xu,2021
1	C19 risk perception	Visit Intention		Seong,2021
2	Perceived behaviour control	Visit Intention		Seong,2021
3	Attitude	Visit Intention		Seong,2021
1	C19 risk perception	Reduction risk behavior		Seong,2021

1	Knowledge in travel risk	Responsible behavioural intentions		Chen et al., 2021
2	C19 perception	Responsible behavioural intentions		Chen et al., 2021
3	Behavioral attitude	Responsible behavioural intentions		Chen et al., 2021
4	Perceived behavioralbehavioal control	Responsible behavioural intentions		Chen et al., 2021
5	C19 perception	Responsible behavioural intentions		Chen et al., 2021
1	Perceived self-efficacy	Health preventive behaviour		Chua, 2020
2	Perceived susceptibility	Health preventive behaviour		Chua, 2020
3	Cues to action	Health preventive behaviour		Chua, 2020
1	Perceived response effort	Approach behavior intention		Chua, 2020
2	CSR	Approach behavior intention		Chua, 2020

Source: Author (2021)

Table 4. Antecedents, main constructcontruct (behavior), consequences, and Author.

III.5. Discussion and ConclusionConclussion

III.5.1. Gaps and future research directions

Research gaps are the areas of research that have never been researched or are still very rarely researched, which can make the greatest research contribution both theoretically and practically.

Besides, the extant literature has studied and confirmed links among antecedents, consequences, and behavior factors. The literature, however, discovered the lacklacks ofin studying tourist behavior during pandemic C19 on 3 counts.:

First, studies of tourist behavior during C19 were still rarerarely in the last 2 years, *Second*, quantitative research design was employed in few casescase. There were only 12 eligibleeligibled researches of the subject in quantitative approach using structural equation modelsmodel which were published in Q3, Q2 and Q1 Scopus indexed journal at last 2 years. *Third*, the review discovered the behavioral antecedents which were still rarely studied such as : (1) the antecedents related to environmental responsibility, namely perceived response effort, (2) the antecedents related to affection, namely desire (Xu et al., 2021), perceived self efficacy (Meng et

al., 2020), (3)) antecedents related to attitude, namely: operation non pharmaceuticalphamaceutical intentions (Xu et al., 2021).

While, all of the behavioralof behavioral factors in this study were still rarely studied in the past 2 years, due. due to all of them just only once studied by the same researcher.

III.5.2. Future ResearchResearh Directions from Prior Studies

The future research directions on the subject of tourist behavior during C19 in this review also revealed by Chua, et al. (2020), suggested that it is possible to expect significant differences inwith the approach behavior to the respective global destinations. Verifying the conceptual model by destinations or countries will give confidence that the subject under investigation echoes across the diverse international destination settings, and the future research should address a variety of the tourists nationalitiestourists'nationalities in order to explore how this demographic variablethis demographic variables affectsvariableaffects their outbound travel behavior after the COVID-19 pandemic (Chua et al., 2020).

Tourists' responsible behavioral intention was investigated instead of the actual behavior. Previous studies have suggested that the environmental behavior intention can be used to predict environmental behavior. However, the discrepancy between actuallyactual responsible behavior and responsible behavioral intention is likely to exist. Therefore, this should be addressed in further research to gain more insights into the intention-behavior gap regarding responsible tourism. (Y. Chen et al., 2021).

Future studies should guide the development of effective approaches to reduce travel-relatedtravel related risk perception and anxiety, due to COVID-19 and other similar health risk situationssituation (Brati, 2021).

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