

Webster, Craig; Yen, Chih-Lun (Alan); Hji-Avgoustis, Sotiris

**Article — Published Version**

## Hotels hurting horribly but hopeful: A case study of the Indianapolis hotel industry

Journal of Tourism, Heritage & Services Marketing

*Suggested Citation:* Webster, Craig; Yen, Chih-Lun (Alan); Hji-Avgoustis, Sotiris (2020) : Hotels hurting horribly but hopeful: A case study of the Indianapolis hotel industry, Journal of Tourism, Heritage & Services Marketing, ISSN 2529-1947, International Hellenic University, Thessaloniki, Vol. 6, Iss. 3, pp. 54-58,  
<https://doi.org/10.5281/zenodo.4064023>

This Version is available at:

<https://hdl.handle.net/10419/224879>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



<https://creativecommons.org/licenses/by-nc-nd/4.0/>

## CASE STUDY

# Hotels hurting horrifically but hopeful: A case study of the Indianapolis hotel industry

**Craig Webster**

Ball State University, USA

**Chih-Lun (Alan) Yen**

Ball State University, USA

**Sotiris Hji-Avgoustis**

Ball State University, USA

## Abstract:

**Purpose:** The authors delve into the impact of the coronavirus pandemic on the hotel industry in Indianapolis in comparison to its competition. The impact of the virus on the hotel industry was analyzed for Indianapolis and its major competitors (Chicago, Nashville, St. Louis, San Antonio and Kansas City) to learn about how severe the impact is and attain insight into how these destinations can rebound.

**Methods:** This paper uses data from Smith Travel Research (STR), a service that produces daily hotel metrics often cited in mainstream media and academic journals. This secondary data source gathers data from participating hotels to obtain a sample of data on occupancy, average daily rate (ADR), and revenue per available room (RevPAR). The trends in the data are compared over time and between cities in the analysis.

**Results:** The findings illustrate that the hotel industry in Indianapolis was able to replace some transient visitors with contracts and group bookings, suggesting that proactive and assertive policies have assisted in the management of the crisis.

**Implications:** The findings from the analysis illustrate that leveraging innovative policies and looking at new markets may assist in the rebounding of convention tourism in Indianapolis and its competitors.

**Keywords:** Covid-19, ADR, RevPAR, hotel occupancy, Indianapolis

**JEL Classification:** H12, L83, N2

**Biographical note:** Craig Webster (cwebster3@bsu.edu) is an associate professor of hospitality and food management at the Department of Applied Business Studies, Ball State University, USA. His research interests include the political economy of tourism, event management, robots and artificial intelligence in tourism and hospitality. Chih-Lun (Alan) Yen (cyen@bsu.edu) is an associate professor of hospitality and food management at the Department of Applied Business Studies, Ball State University, USA. His research interests include human resources management and hotel operations and marketing. Sotiris Hji-Avgoustis (shjiavgousti@bsu.edu) is a professor of hospitality and food management at the Department of Applied Business Studies, Ball State University, USA. His research interests include tourism promotion, cultural and sports tourism and social entrepreneurship. Corresponding author: Sotiris Hji-Avgoustis (shjiavgousti@bsu.edu).

## 1 INTRODUCTION

Tourism is an important industry globally, in the USA, and in Indiana. In 2018, travel and tourism accounted for over ten percent of global economic activity, was responsible for one in ten jobs globally, and was the second fastest growing sector in the global economy (World Travel & Tourism Council, 2020a). In the USA, travel and tourism supported

15.8 million jobs in 2019, with one in ten jobs dependent upon the industry, and estimates show that without the tax revenue from travel and tourism, the average American household would pay about \$1,398 more in taxes (US Travel Association, 2020). For Indiana, 2018 data illustrate that 1 in 23 Indiana workers was employed because of tourism and that the Indiana tourism industry directly supported more than 152,000 jobs in Indiana in 2018 (Visit Indiana Tourism, 2019).

Travel, tourism, and hospitality is vulnerable to pandemic (Vox, 2020). Over 100 million jobs were lost globally in the industry due to the pandemic (World Travel & Tourism Council, 2020b). This study investigates the impact of the pandemic on the hospitality convention industry of Indianapolis and its major competitors (Chicago, Nashville, St. Louis, San Antonio and Kansas City). MICE (Meetings, Incentive Groups, Conferences and Events) related tourism generated over \$752 billion in 2016 but can be impacted adversely when disaster strike. Indianapolis convention tourism generates \$5.5 billion in revenue and \$725 million in state and local taxes, according to Visit Indy's latest annual estimates (Visit Indy, 2020). The authors look into the pandemic and its impact upon these cities and try to look into how Indianapolis can create pragmatic policies to react to the economic challenges, illustrating that leveraging innovative policies and looking at new markets may assist in the rebounding of convention tourism in Indianapolis and its competitors.

In the next section, the authors review the literature on crisis in travel and tourism. Following that, there is a discussion of the methods and data that show how the shock of the COVID-19 virus has impacted upon tourism nationally, on Indianapolis, and the major competitors of Indianapolis. The data highlight that there are some differences in the fluctuation of occupancy rates and average daily rate (ADR) (the two major performance measures of the vitality of the hotel industry) nationally, for Indianapolis, and its major competitors. Finally, the authors illustrate what the data tell show about the impact of the COVID-19 virus and the economic reaction to it and make policy suggestions to assist in the revival of the hospitality and tourism industries, specifically for Indianapolis.

---

## 2 LITERATURE REVIEW: TRAVEL, TOURISM AND CRISIS

---

Many have researched how tourism and hospitality have dealt with crises and recovery. Research using large databases shows that tourists avoid destinations with low human rights records, crime, terrorist problems, and civil conflict (Llorca-Vivero, 2008; Neumayer, 2004) and have been confirmed in different regions globally (Araña & León, 2008; Björk & Kauppinen-Räsänen, 2011; Causevic & Lynch, 2013; Larsen, Brun, Øgaard, & Selstad, 2011; Saha & Yap, 2014; Wolff & Larsen, 2014; Vlasic et al., 2019; Van Truong et al., 2020). The findings show the perceived safety of a tourist experience is a key factor ensuring stable/growing tourism flows. Some of the literature on the recovery of tourism and hospitality following shocks deals with destinations and how they counteract the damage a crisis plays on the negative image of a destination (Avraham, 2015; Allan & Alkushman, 2019; de Sausmarez 2007; de Sausmarez 2013; Webster, Yen, & Hji-Avgoustis, 2016).

The consensus of the academic literature on negative shocks to tourism flows to destinations seems to be that a swift and affirmative reaction to a shock to tourism flows to destinations can assist in recovery. An example of this is the way that a destination can recover from a shock is the way that Visit Indy unveiled its "Indy Welcomes All" campaign in response to the RFRA crisis in Indiana in 2015 (Webster

et al., 2016). Repositioning and the communication by the destination marketing organization is shown to be an important element in recovery, as shown by others (Chacko & Marcell, 2008), who discuss rebranding New Orleans following hurricane Katrina.

Something less common in the literature is the way that organizations and senior management recover from crises or survive a disaster (Alegre & Sard, 2015; Jallat & Shultz, 2010). One of best studied crises was the Crimean Crisis of 2013 (Ivanov, Idzhylva & Webster, 2016; Ivanov, Sypchenko & Webster, 2017; Webster, Ivanov, Gavrilina, Idzhylva & Sypchenko, 2017). Studies of the Crimean crisis show that managers in enterprises adopt different policies in their situations based upon their needs and abilities to shape policies. Managers implement policies to survive crises, including demanding payment in cash, demanding payment in foreign currencies than usual, postponing expenditures for supplies, laying off staff, or other pragmatic policies on the ground. But these lessons are more about the survival of firms in hostile conditions rather than a resurgence following a shock.

Academic literature was developed to respond to the 2002-2003 SARS outbreak's impact upon tourism and hospitality (Cooper, 2005; Hung, Mark, Yeung, Chan, & Graham, 2018; McKercher & Chon, 2004; Zeng, Carter, & De Lacy, 2005). However, there are other outbreaks/events (Ebola, H1N1 swine flu, MERS) that made an impression upon the travel, tourism, and hospitality literature with regards to how recovery from biological threats (Hall, 2005; Hung et al., 2018; Joo, Maskery, Berro, Rotz, Lee, & Brown, 2019; Maphanga & Henama, 2019; Novelli, Burgess, Jones, & Ritchie, 2018). In addition, recent literature (Jamal & Budke, 2020; Hanrahan & Melly, 2019; Sönmez, Wiitala, & Apostolopoulos, 2019) investigates disease and the role that tourism plays as a threat to public health. The literature deals with how tourism spreads disease and how the spread of disease can be mitigated against.

Regardless the type of crisis that the region faces, the critical challenge is the continuous plan and policies initiated by hospitality businesses, such as hotels, to sustain the business and enter the recovery phase once the crisis has been reduced or rescinded. Thus, the authors pose the research question: How does the hotel industry respond to the biosecurity caused by COVID-19 and what is the consequence of its business strategies during the pandemic in the US? In specific, the study focuses on Indianapolis as a case study and assess its performance with its major competitors.

---

## 3 DATA, ANALYSIS AND DISCUSSION

---

For this analysis, the study used hotel performance data from Smith Travel Research (STR) focusing on the metropolitan statistical areas (MSA) of six cities. STR is an American firm that records hotel supply and demand data and delivers detailed market share analyses for all major hospitality firms and brands operating at the USA, Mexico, Canada and the Caribbean area. STR specializes in acquiring valid Metropolitan Statistical Area level hotel data on a daily basis for occupancy rates, average room rates, revenue per room, and total local hotel revenue. Academic and professional journals often quote STR data while examining fluctuations

of hotel performance as a proxy for overall economic environment (Bailey, 2012; Dermody, Taylor, and Lomanno, 2002; Fink, 2011).

They include Chicago, Kansas City, Saint Louis, Nashville, San Antonio, and Indianapolis. These cities were selected because Visit Indy, a non-profit organization that markets the City of Indianapolis and the Indiana Convention Center, considers them as its main competitors in the area of convention tourism.

STR gathers data from hotels that participate in its data subscription service. The data include rooms available for sale, rooms sold, and net room revenue on a daily, weekly, and monthly basis (Smith Travel Research, 2020). In addition, the data are broken down by business segments (transient, group, and contract) to reflect performance. The transient segment includes rooms sold to individuals or groups occupying less than 10 rooms per night, while the group segment includes rooms sold to groups occupying 10 or more rooms per night based on a signed agreement. The contract segment includes rooms sold in a consistent block at specified contract rates for an extended period of time in exchange for a guaranteed payment regardless of the actual usage.

From the collected data, three performance matrices are calculated: average daily rate (ADR) and occupancy, and revenue per available room (RevPAR). ADR is a measure of the average rate paid for rooms sold by dividing rooms revenue by rooms sold. Occupancy is a measure of the percentage of available rooms sold by dividing the number of rooms sold by rooms available for sale. RevPAR is a measure of the average revenue for each available room in the hotel and is calculated by dividing total room revenue by total number of rooms available for sale. In this study, we only focus on occupancy and ADR because these two can directly reflect the demand and supply and the pricing decision implemented by hotels in selected MSA.

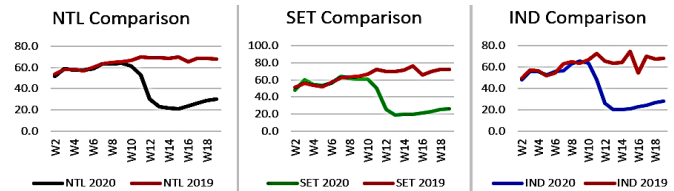
This research project uses weekly performance data acquired through the data sharing agreement program with STR. It spans the first nineteen weeks of 2019 and the same period in 2020. A competitive set was created to calculate the average performance matrices from the six cities listed above. The authors compared the overall hotel business performance between national, competitive set, and Indianapolis to develop a general view of the influence of COVID-19 on the hotel business. The authors then compared the business segments in 2020 to identify the trend in transient, group, and contract business between the competitive set and Indianapolis to investigate specific patterns.

Several major events are noted for 2020. On January 30 (week 5), the World Health Organization (WHO) declared the Covid-19 outbreak a global health emergency and the U.S. imposed its first travel restrictions. During the last two weeks in February (week 8 and week 9), COVID-19 started to spread in the U.S. On March 11 (week 11), WHO designated COVID-19 a pandemic and the U.S. Department of State issued a Global Level 3 health advisory. On March 15 (week 12), the U.S. Centers for Disease Control (CDC) issued guidance calling for cancellation or postponement of in-person events of 50 or more people and state governments began adopting varying levels of partial to full lockdown protocols the following week (week 14). After several weeks

of restrictions, states started to relax on their stay at home orders and began allowing businesses to reopen with specific guidelines in week 18.

Figure 1 shows that the national, competitive set, and Indianapolis had a similar pattern for occupancy. The disruption started around week 8 and reached its peak around week 12. As expected, hotel businesses in the US, the competitive set, and Indianapolis performed worse in 2020 than in 2019.

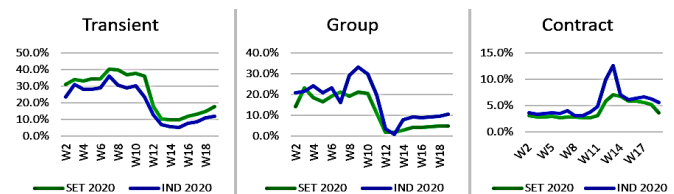
Figure 1: Occupancy comparison between 2019 and 2020



Note: Occupancy is shown in percentage on the left, the week is shown on the bottom.

When assessing the main difference among the six cities (Figure 2), the main drivers behind the performance come from group and contract customers. When COVID-19 started to spread in the US, the number of transient customers, who mainly travel for leisure purposes dropped massively. On the other hand, many customers who continue to stay in hotels during this time were employed in in the warehousing and logistics business. Indianapolis had an upper hand in this business segment than the other cities in the competitive set because logistics and supply chain management are major industries in Indianapolis. For example, just south west of the city, FedEx, a parcel delivery business, operates the second largest air hub worldwide. Within city limits, there is an ecommerce Amazon fulfilment center and a United Parcel Service parcel delivery center. (Indy Chamber, 2018).

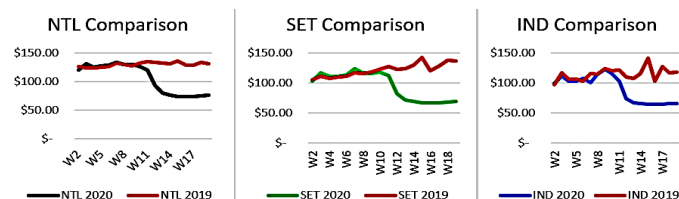
Figure 2: Occupancy comparison of the competitive set and Indianapolis based on segments



Note: Occupancy is shown in percentage on the left, the week is shown on the bottom.

While the demand showed a dramatic drop in 2020, hotels did not engage in any pricing adjustment to recover lost revenue. Instead, they chose to lower their price to at least meet the break-even point (Figure 3). Some hotels, especially those classified as luxury and upscale brands, elected to furlough their employees, and temporarily shut down operations to avoid a continuous financial loss caused by the labor cost. Others, such as economy or budget hotels, remained open after furloughing all but a few essential employees, mainly upper level managers, who were required to stay in the hotel six days a week and provide all needed services to keep the hotel operational.

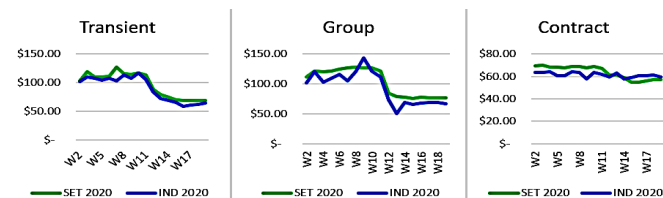
Figure 3: ADR comparison between 2019 and 2020



Note: Average Daily Rate (ADR) is shown in US dollars on the left, the week is shown on the bottom.

Even though Indianapolis had a better performance in group and contract segments than other cities, its hotels elected to still drop their prices. Interestingly, they decided to be more aggressive and had an even lower ADR than the competitive set. This might also have contributed to attracting more group and contract customers who stayed in hotels in Indianapolis than other cities (Figure 4). This may also reflect what type of hotels remained open during this time and the customers they attracted in the current pandemic crisis.

Figure 4: ADR comparison of the competitive set and Indianapolis based on segmentsIndy



Note: Average Daily Rate (ADR) is shown in US dollars on the left, the week is shown on the bottom.

#### 4 CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Upon reviewing STR data for these seven convention tourism cities for the sample period examined, the resulting assumptions were developed. The data show that 2020 is very different for the hotel industry from 2019. The data also show that the transient market is the worst in comparison with 2019, although there is evidence of an uptick since the relaxation of measures has taken place. While the uptick in all segments seems to be happening because of the political relaxation of restrictions and a return to normal, there is a long way to go to get back to normal.

What the data do show is that the group and contract segments offer some hope to remain open and keeping business going for hotels, especially in Indianapolis. This suggests that hotels should look at different segments and use these segments as tools to assist in the rebound of their business, since the uptick in transient travelers may be slow. In addition, for the time being, the larger conventions and groups will also be slow to recover, as populations are going to be wary of large crowds and there will be many restrictions on large gathers for some time to come.

In conclusion, all-in-all, the data show that the hotel industry in the USA is suffering directly and immediately from the COVID-19 pandemic. While there is a glimmer of hope that things will continue to pick up due to bottled up demand for

transient tourism, there is still a long way to go. The hotel industry will have to look into different segments such as groups and contracts to try to rebound or at least survive in the short term. However, large group bookings and the geography of cities will likely maintain a significant function in preventing the industry from rebounding in many cities.

In relation to future research, attention would be paid to investigating whether the findings are considerably influenced by adopting either county-level statistics rather than MSA ones, or a specific geographic area within a specific range (i.e. 10 or 15 miles) from the competition location. A second consideration for future research is to expand the list of city competitors beyond the list of six cities identified by Visit Indy. A larger sample size would improve reflection of historical data for the local hospitality industry, and hence, deliver more vigorous assessments of hotel performance.

#### REFERENCES

- Alegre, J. & Sard, M. 2015. When demand drops and prices rise. Tourist packages in the Balearic Islands during the economic crisis. *Tourism Management*, 46: 375-385.
- Allan, M., & Alkushman, S. 2019 Exploring the impacts of the Arab Spring on tourism in Jordan: Perspectives of the public and private sector. *e-Review of Tourism Research* 14(4): 332-351.
- Araña, J. E., & León, C. J. 2008. The impact of terrorism on tourism demand. *Annals of Tourism Research*, 35(2): 299-315.
- Avraham, E. 2015. Destination image repair during crisis: Attracting tourism during the Arab spring uprisings. *Tourism Management*, 47: 224-232.
- Bailey, W.S. 2012. Austin hotels cashed in on Formula 1 U.S. Grand Prix. *San Antonio Business Journal*. Available <http://www.bizjournals.com/sanantonio/blog/2012/12/austin-hotels-cashed-in-on-formula-1.html> (accessed 30 April 2020).
- Björk, P., & Kauppinen-Räsänen, H. 2011. The impact of perceived risk on information search: A study of Finnish tourists. *Scandinavian Journal of Hospitality and Tourism*, 11(3): 306-323.
- Buckley, C. 2020. Chinese doctor, silenced after warning of outbreak, dies from coronavirus, *New York Times*. Available at: <https://www.nytimes.com/2020/02/06/world/asia/chinese-doctor-Li-Wenliang-coronavirus.html>. html (accessed 30 April 2020).
- Causevic, S., & Lynch, P. 2013. Political (in)stability and its influence on tourism development. *Tourism Management*, 34: 145-157.
- Chacko, H. E., & Marcell, M. H. 2008. Repositioning a tourism destination: The case of New Orleans after hurricane Katrina. *Journal of Travel & Tourism Marketing*, 23(2-4): 223-235.
- Christou, E., & Nella, A. (2016). Web 2.0 and pricing transparency in hotel services. In Sigala, M., Christou, E., & Gretzel, U. (Eds.). *Social Media in Travel, Tourism and Hospitality*, Ashgate Publishing, Surrey, pp. 133-148.
- Cooper, C. 2005. Japanese tourism and the SARS epidemic of 2003. *Journal of Travel & Tourism Marketing*, 19(2/3): 117-131.
- Dermody, M. B., Taylor, S. L., and Lomanno, M. V. 2003. The impact of NFL games on lodging industry revenue. *Journal of Travel & Tourism Marketing*, 14(1): 21-36.
- de Sausmarez, N. 2007. The potential for tourism in post-crisis recovery: Lessons from Malaysia's experience of the Asian financial crisis. *Asia Pacific Business Review*, 13(2): 277-299.
- de Sausmarez, N. 2013. Challenges to Kenyan tourism since 2008: crisis management from the Kenyan tour operator perspective. *Current Issues in Tourism*, 16(7-8): 792-809.

- Fink J. 2011. Sports helped revive tourism in 2010. *Buffalo Business Journal*. Available <http://www.bizjournals.com/buffalo/news/2011/01/26/sports-helped-revive-tourism-in-2010.html> (accessed 30 April 2020)
- Hall, C. M. 2005. Biosecurity and wine tourism. *Tourism Management*, 26: 931-938.
- Hanrahan, J., & Melly, D. 2019. Biosecurity Risk and Tourist Communication in Ireland. *European Journal of Tourism Research*, 22: 45-61.
- Hung, K. K., Mark, C. K., Yeung, M. P., Chan, E. Y., & Graham, C. A. 2018. The role of the hotel industry in the response to emerging epidemics: a case study of SARS in 2003 and H1N1 swine flu in 2009 in Hong Kong. *Globalization and health*, 14(1): article 117.
- Indy Chamber. 2018. Largest warehouse and distribution employers. Available from <https://indychamber.com/wp-content/uploads/2018/11/Largest-Warehouse-Distribution-Employers.pdf> (accessed 30 April 2020).
- Ivanov, S., Gavrilina, M., Webster, C., & Ralko, V. 2017. Impacts of political instability on the tourism industry in Ukraine. *Journal of Policy Research in Tourism, Leisure and Events*, 9(1): 100-127.
- Ivanov, S., Idzhyllova, K., & Webster, C. 2016. Impacts of the entry of the Autonomous Republic of Crimea into the Russian Federation on its tourism industry: An exploratory study. *Tourism Management*, 54: 162-169.
- Ivanov, S., Sypchenko, L., & Webster, C. 2017. International sanctions and Russia's hotel industry: the impact on business and coping mechanisms of hoteliers. *Tourism Planning & Development*, 14(3): 430-441.
- Jallat, F., & Shultz, C. J. 2010. Lebanon: From cataclysm to opportunity—Crisis management lessons for MNCs in the tourism sector of the Middle East. *Journal of World Business*, 46(4): 476-486.
- Jamal, T. & Budke, C. 2020. Tourism in a world with pandemics: local-global responsibility and action. *Journal of Tourism Futures*.
- Joo, H., Maskery, B. A., Berro, A. D., Rotz, L. D., Lee, Y. K., & Brown, C. M. 2019. Economic impact of the 2015 MERS outbreak on the Republic of Korea's tourism-related industries. *Health Security*, 17(2): 100-108.
- Larsen, S., Brun, W., Øgaard, T., & Selstad, L. 2011. Effects of sudden and dramatic events on travel desire and risk judgments. *Scandinavian Journal of Hospitality and Tourism*, 11(3): 268-285.
- Llorca-Vivero, R. 2008. Terrorism and international tourism: New evidence. *Defence and Peace Economics*, 19(2): 169-188.
- Maphanga, P.M., & Henama, U.S. 2019. The tourism impact of Ebola in Africa: Lessons on crisis management. *African Journal of Hospitality, Tourism and Leisure*, 8(3): article 59.
- McKercher, B., & Chon, K. 2004. The over-reaction to SARS and the collapse of Asian tourism. *Annals of Tourism Research*, 31(3): 716-719.
- Neumayer, E. 2004. The impact of political violence on tourism: Dynamic cross-national estimation. *The Journal of Conflict Resolution*, 48(2): 259-281.
- Novelli, M., Burgess, L. G., Jones, A., & Ritchie, B. W. 2018. 'No Ebola... still doomed'—The Ebola-induced tourism crisis. *Annals of Tourism Research*, 70: 76-87.
- Pew Research Center. 2020. More than nine-in-ten people worldwide live in countries with travel restrictions amid COVID-19. Available <https://www.pewresearch.org/fact-tank/2020/04/01/more-than-nine-in-ten-people-worldwide-live-in-countries-with-travel-restrictions-amid-covid-19/> (accessed 30 April 2020).
- Saha, S., & Yap, G. 2014. The moderation effects of political instability and terrorism on tourism development: A cross-country panel analysis. *Journal of Travel Research*, 53(4): 509-521.
- Smith Travel Research. 2020. Trend Report. Nashville, TN: Smith Travel Research
- Sönmez, S., Wiitala, J., & Apostolopoulos, Y. 2019. How complex travel, tourism, and transportation networks influence infectious disease movement in a borderless world. In Dallen, J.T. (Ed.), *Handbook of Globalization and Tourism*: 76-88. Cheltenham, UK: Edward Elgar Publishing:
- US Travel Association. 2020. U.S. Travel Answer Sheet. Available [https://www.ustravel.org/system/files/media\\_root/document/Research\\_Fact-Sheet\\_US-Travel-Answer-Sheet.pdf](https://www.ustravel.org/system/files/media_root/document/Research_Fact-Sheet_US-Travel-Answer-Sheet.pdf) (accessed 30 April 2020).
- Van Truong, N., Shimizu, T., Kurihara, T., & Choi, S. (2020). Generating reliable tourist accommodation statistics: Bootstrapping regression model for overdispersed long-tailed data. *Journal of Tourism, Heritage & Services Marketing*, 6(2), 30-37. <http://doi.org/10.5281/zenodo.3837608>
- Visit Indiana Tourism. 2019. Tourism's Economic Benefit. Available at <https://www.visitindianatourism.com/why-tourism-matters> (accessed 30 April 2020).
- Visit Indy. 2020. State of Indianapolis Tourism. Available at <https://www.visitindy.com/indianapolis-tourism> (accessed 30 April 2020).
- Vlasic, D., Poldrugovac, K., & Jankovic, S. (2019). The Competitive pricing in marina business: Exploring relative price position and price fluctuation. *Journal of Tourism, Heritage & Services Marketing*, 5(1), 3-8. <http://doi.org/10.5281/zenodo.2640935>
- Vox. 2020. How the coronavirus crisis will hit American workers, in one chart. Available at <https://www.vox.com/policy-and-politics/2020/3/24/21191075/coronavirus-recession-worker-layoffs-unemployment-economy-restaurants-stimulus-bill> (accessed 30 April 2020).
- Webster, C., Ivanov, S., Gavrilina, M., Idzhyllova, K., & Sypchenko, L. 2017. Hotel Industry's Reactions to the Crimea Crisis. *e-Review of Tourism Research*, 14(1-2): 57-71.
- Webster, C., Yen, C. L. A., & Hji-Avgoustis, S. 2016. RFRA and the hospitality industry in Indiana: political shocks and empirical impacts on Indianapolis' hospitality and tourism industry. *International Journal of Tourism Cities*, 2(3): 221-231.
- Wolff, K., & Larsen, S. 2014. Can terrorism make us feel safer? Risk perceptions and worries before and after the July 22nd attacks. *Annals of Tourism Research*, 44: 200-209.
- World Travel & Tourism Council. 2020a. Travel Tourism continues strong growth above global GDP. Available from <https://www.wttc.org/about/media-centre/press-releases/press-releases/2019/travel-tourism-continues-strong-growth-above-global-gdp/> (accessed 30 April 2020).
- World Travel & Tourism Council. 2020b. WTTC now estimates over 100 million jobs losses in the Travel & Tourism sector and alerts G20 countries to the scale of the crisis. Available from <https://wttc.org/News-Article/WTTC-now-estimates-over-100-million-jobs-losses-in-the-Travel-&-Tourism-sector-and-alerts-G20-countries-to-the-scale-of-the-crisis> (accessed 30 April 2020).
- Zeng, B., Carter, R. W., & De Lacy, T. 2005. Short-term perturbations and tourism effects: The case of SARS in China. *Current Issues in Tourism*, 8(4): 306-322.

---

SUBMITTED: AUG 2020

REVISION SUBMITTED: SEP 2020

ACCEPTED: OCT 2020

REFEREED ANONYMOUSLY

PUBLISHED ONLINE: 30 OCT 2020