

RESEARCH NOTE

# One October tragedy in Las Vegas: An overview of tourists' perceptions

**Mehmet Erdem**

University of Nevada Las Vegas, USA

**Saeed Vayghan**

University of Nevada Las Vegas, USA

**Billy Bai**

University of Nevada Las Vegas, USA

**Abstract:**

**Purpose:** This study seeks to examine Las Vegas visitors' perception about security in Las Vegas and the perceived risks associated with traveling to Las Vegas following the One October mass shooting. It also aims to explore potential Las Vegas visitors' attitudes towards the proactive security measures implemented by Las Vegas resorts after the One October tragedy.

**Methods:** The study is descriptive in nature. The data was collected through a web-based survey that comprised a national sample of 414 adults from the United States.

**Results:** The results indicate that despite the tragic One October mass shooting in Las Vegas and the associated media coverage, security is not a major concern for visitors to Las Vegas. The findings of this study also suggest that Las Vegas visitors approve of existing and emerging security procedures.

**Implications:** Findings point out to an opportunity to capitalize on the perceived enhanced security measures in Las Vegas and to put emphasis on addressing financial risk concerns via marketing and public relations campaigns.

**Keywords:** Las Vegas, security, tourism, tourist behavior, resorts

**JEL Classification:** L83, M31, Z33

**Biographical note:** Mehmet Erdem (mehmet.erdem@unlv.edu) is an Associate Professor in the William F. Harrah College of Hospitality at the University of Nevada Las Vegas. His research interests include hotel operations and technology. Saeed Vayghan (saeed.hasanzadeh@unlv.edu) is a Doctoral Candidate in the William F. Harrah College of Hospitality at the University of Nevada Las Vegas. His research interests include tourism, consumer behavior and technology. Billy Bai (billy.bai@unlv.edu) is Professor and Associate Dean of Research in the William F. Harrah College of Hospitality at the University of Nevada Las Vegas. His research interests include hospitality and tourism marketing. Corresponding author: Mehmet Erdem (mehmet.erdem@unlv.edu).

## 1 INTRODUCTION

Tourism is an essential part of the Las Vegas economy with an estimated total economic impact of 57.6 billion dollars in 2018 (Las Vegas Convention and Visitor Authority "LVCVA", n.d.) and supporting 407,000 jobs which constitutes nearly 44 percent of the total workforce. (Moore, 2017). About 42.5 million tourists visited Las Vegas in 2019, indicating a 1% increase compared to 2018 (LVCVA, 2020). The city has a reputation for being a tourist mecca, adult playground, birthplace of integrated-resorts, and much more. Unfortunately, it is also the tragic site of the worst mass shooting in the modern U.S. history. On October 1 2017, 58

people were killed and hundreds of people were injured in a mass-shooting, and, at that time, some experts have stated that the city will never be the same (Lawrence, 2017).

The October 1 tragedy in Las Vegas, often referred to as One October, leaves unanswered questions and speculation on how this horrible event may influence the hotel guests' experience due to the proposed new security measures and visitors' perceived risk of traveling to Las Vegas. (Feldberg, 2018; Martin & Montero, 2018; Moore, 2017). Convention cancellations as well as decline in occupancy rate of hotels continued for months after the tragedy (Prince, 2018, King, 2017). About a 4.2% decline in visitors was reported the month of the mass shooting (Bloomberg, 2017). Despite the widespread coverage of the tragedy in the media for several

months, there is no empirical information on how this very popular destination is perceived by visitors post-One October or whether the proactive security measures implemented or still being considered due to this incident are being welcomed by visitors or not.

Most Las Vegas resorts are designed to purposefully offer a welcoming atmosphere with plenty of publicly accessible spaces and venues. However, the management and ownership of these properties, just like any other lodging establishment, are obligated with the duty to maintain a safe and secure environment for the guests and visiting patrons despite the large volumes of foot traffic on a daily basis. Given the deployed as well as the proposed security measures post One October tragedy, resort operators feel the pressure to maintain a welcoming atmosphere while balancing the security needs and expectations from the public (Schulz, 2018).

There are several studies focusing on tourists' risk perceptions and their safety concerns (Karl, 2018; Isaac & Velden, 2018; Seabra, Abrantes, & Kastenholz, 2014; Floyd, Gibson, Pennington-Gray, & Thapa, 2004; George, 2003). Risk perception is one of the most important issues in tourists' decision-making process because it can influence tourists' destination choice (Chew & Jahari, 2014). Despite the fact that the One October tragedy in Las Vegas is the worst mass shooting in recent US history, to the best knowledge of this study's authors, there are no empirical studies that examined the potential impact of this tragic event on visitors' intention to visit Las Vegas. There were several reports in the media about the drop in the number of visitors and gambling revenue post One October (Velotta, 2017; Montero, 2017) and some experts attributed the decline in visitor numbers to the tragic event. According to a report by Martin and Montero (2018), the number of Las Vegas visitors dropped by 3.3% in January 2018, 4 months after the tragedy, making a 8.89% slump in the gaming revenues of Las Vegas Strip's resorts; that was the sharpest percentage decrease among all Nevada gambling markets for the month (before the COVID-19 pandemic occurred).

This study seeks to examine Las Vegas visitors' perception of risk and safety in the aftermath of One October mass shooting. It also aims to explore attitudes towards the proactive security measures implemented by Las Vegas properties. Particularly, this study attempts to answer the following questions:

- 1) What are visitors' perceptions of risks associated with traveling to Las Vegas in the aftermath of One October mass shooting?
- 2) What are Las Vegas visitors' opinions about the effectiveness of the proposed and ongoing security measures?

---

## 2 LITERATURE REVIEW

---

On the evening of Sunday, October 1, 2017, a shooter fired over 1,000 rounds into the crowd attending the Route 91 Harvest Music Festival from his room window on the 32<sup>nd</sup> floor at Mandalay Bay Hotel in Las Vegas, Nevada. A total of 58 people were killed, and more than 500 people were injured according to officials (Blankstein, Williams, Elbaum, & Chuck, 2017). Unfortunately, the number of dead has

recently raised to 60 (Lacanlale, 2020). The One October mass shooting in Las Vegas is considered to be the deadliest mass shooting in the recent history of United States (Rosenblatt, 2018).

Investigating tourists' perceptions of safety and risks associated with traveling to a destination has gained more importance in the aftermath of tragic incidents in tourist destinations, especially since 1990s (Tasci, & Sönmez, 2019). Previous studies have indicated the importance of tourists' risk perceptions in their decisions to visit or avoid a destination (Fuchs & Reichel, 2004). Sönmez, Apostopopolos, and Tarlow (1999) reported that higher perceived risk is associated with decrease in visitation. Therefore, risk perception is considered as an important predictor of tourists' behavior (Tasci, & Sönmez, 2019). In fact, Floyd and Pennigton-Gray (2004) have demonstrated that tourists could be clustered based on their perception of risk. Williams and Baláz (2015) emphasize the need to study different aspects and concepts of risks in tourism. In their review of risk related studies in tourism, Yang et al. (2017) point to the lack of risk related research in the context of gender and contend for further in-depth studies on the topic. In an exploratory study to examine the risk perceptions of tourists and their behavioral profiles, Fuchs and Reichel (2011) concluded that destination related risks factors could be used for visitor segmentation and marketing. However, a study by Sohn et al (2016) found no effect between perceived risk and behavioral intention among festival visitors.

Overall, previous research on tourist destinations and risk perceptions has revealed several factors such as past travel experience, degree of safety felt during travel, types of associated risks with traveling to a specific destination, cultural differences, tourist knowledge, etc. as the factors that influence a tourist's perceptions of risks and choice of destination (Fuchs & Reichel, 2004; Sönmez, & Graefe, 1998; Wong & Yeh, 2009). The beforementioned studies provide measurement items for several types of risks associated with traveling to a destination such as crime, time, health, terrorism, financial, privacy, psychological, social, and physical.

---

## 3 METHODOLOGY

---

The study is descriptive in nature. The data was collected through a nation-wide web-based survey obtained through a Qualtrics U.S. consumer panel. Two screening questions were used to qualify participants. They had to be 18 years of age or older and had to have stayed at a hotel at least one night in the past 12 months prior to data collection. The respondent panel was designed to include an equal number of males and females. Nine different risk groups associated with visiting tourist destinations (Figure 1) were considered for inclusion based on the studies by Sönmez and Graefe (1998), and Fuchs and Reichel (2006). Questions were adopted from Fuchs and Reichel's study (2006) to assess visitors' perceptions of risks associated with traveling to Las Vegas (Table 2). In order to make the list of perceived risks as comprehensive and as applicable to the study topic as possible, additional questions relating to risk of being a victim of mass shooting in Las Vegas, concerns about payment information security in resorts, and attitudes

towards hotel security were formulated and added. Also, based on the review of related literature and media reports, a list of on-going and proposed hotel security measures was provided to the respondents to assess their perceived effectiveness.

Figure 1: Perceived risk types



**4 RESULTS AND DISCUSSION**

The survey yielded a total of 414 completed responses. The demographic characteristics of respondents are presented in Table 1. Respondents in the 55-73 years age range (Boomers) constituted the largest age group among the respondents with a share of 36.3% of the total sample. The highest frequency of annual income segment was between US\$25,000 to US\$50,000 per year (25.8%). The majority of the respondents (79.8%) reported having attained some college education or higher. In terms of marital status, a slight majority of respondents were married (52.17%). Out of 414 respondents, 157 (37.92%) indicated having traveled to Las Vegas in the past. When asked about their intention to travel to Las Vegas in the next 12 months, 144 (34.78%) replied affirmatively. A total of 90.34% of survey respondents indicated that they had traveled mostly for leisure purposes in the past 12 months.

**4.1. Perceived risks associated with traveling to Las Vegas**

Respondents were asked to assume that they were planning a trip to Las Vegas and indicate their level of agreement with a list of statements that reflected nine perceived risk types (Table 2). The mean score for each item shows that the study participants generally did not agree with the stated perceived risks pertaining to a visit to Las Vegas and were mostly not worried about the nine different risk types. Compared to other types of risk, there were more participants who indicated concerns about perceived financial risks with a trip to Las Vegas. The top four ranked items listed in Table 2 are all affiliated with financial risks when travelling to a destination.

Despite the recency of the mass shooting with the time period when this study was conducted and the frequent media coverage of the tragedy over the subsequent 12 months, most respondents did not seem to perceive a security or safety risk with traveling to Las Vegas. A mere 17.15% of the respondents expressed concern about being the victim of a mass shooting when visiting Las Vegas.

Table 1: Profile of respondents

Variables	Categories	Frequency	Percentage
<b>Gender</b>	Male	207	50
	Female	207	50
<b>Age (years)</b>	18-22	26	6.28
	23-30	51	12.32
	31-38	55	13.29
	39-54	96	23.19
	55-63	73	16.73
	64-73	81	19.57
	74 or older	32	7.73
<b>Income</b>	25K or less	74	17.9
	\$25k-\$50k	107	25.8
	\$50k-\$75k	100	24.2
	\$75k-\$100k	61	14.7
	\$100K-\$150K	46	11.1
	\$150K-\$200K	15	3.6
	\$200K-\$250K	8	1.9
	More than \$250k	3	.7
<b>Education</b>	Below high school	8	1.9
	High School	74	17.9
	Some College	99	23.9
	2-year college	55	13.3
	4-year college	104	25.1
	Professional degree	18	4.3
	Master's degree	49	11.8
<b>Marital Status</b>	Doctorate degree	6	1.4
	Single, never married	97	23.4
	Married	216	52.2
	Living with partner/significant other	38	9.2
	Divorced/separate	43	10.4
	Widowed	20	4.8
<b>Total</b>		414	100

In addition to the nine risk types and associated concerns, respondents were also asked about their attitudes towards hotel security and the mass shooting tragedy. When asked if the level of security in Las Vegas resorts is higher than other tourist destinations in the U.S., 38.89% indicated agreement while 10.63% disagreed with the statement. About 50% neither agreed nor disagreed with the beforementioned item. Interestingly, 83% of the respondents agreed that hotels should be required to take more responsibility for security and safety for guests. Fifty two percent of respondents agreed that hotel guests would be willing to pay higher rates for having enhanced levels of security. Overall, the majority of survey respondents disagreed with the statement that the One October shooting in Las Vegas impacts their decision to travel to Las Vegas. Only 16% of the respondents indicated

that the One October shooting at Las Vegas adversely impacts their decision to visit Las Vegas in the future.

Table 2: Ranking Las Vegas visitors' perceived risks

Items	Mean*	Std. Deviation
I am worried that the trip to Las Vegas would be more expensive than other destinations.	4.37	1.765
I am worried that the trip to Las Vegas would involve unexpected extra expenses (e.g. changes in exchange rates, extra costs in hotels).	3.98	1.745
I am worried about gambling over my budget	3.58	1.962
I am worried that I will not receive good value for my money if I travel to Las Vegas.	3.57	1.627
Visiting sites of Las Vegas could be time-consuming (e.g., because of a long queue or poor service operation).	3.44	1.506
I am worried about being a victim of a crime such as robbery, theft.	3.37	1.743
I am worried that I will not receive good value for my money if I travel to Las Vegas.	3.37	1.765
I am more worried about my credit card information being stolen when I am in Las Vegas.	3.35	1.809
I am worried about physical assault or injury due to violence.	3.13	1.711
I am worried that the Las Vegas trip experience will not meet my expectations.	3.10	1.644
I think visiting Las Vegas will be a waste of time.	3.06	1.687
Planning for travel to Las Vegas might take too much time.	3.02	1.515
I am worried that I will not receive personal satisfaction from the trip to Las Vegas.	2.96	1.668
I am worried that Las Vegas is susceptible to terrorist attacks.	2.95	1.623
I am worried that Las Vegas city officials don't have effective plans to prevent terrorist attacks.	2.86	1.588
I am worried that Las Vegas is an easy target for terrorist attacks.	2.80	1.653
I am worried that hotels in Las Vegas will share my personal information with law enforcement agencies such as local police force, FBI, homeland security, etc. (e.g. Police)	2.76	1.620
I am worried about being victim of a mass shooting.	2.75	1.710
I am worried that the image of Las Vegas trip experience doesn't reflect the kind of person I am.	2.68	1.694
I am worried about sexual assault and violence.	2.66	1.617
I am worried that new security and safety policies in Las Vegas resorts will violate my privacy.	2.60	1.439
I am worried about getting sick without access to local medical facilities in Las Vegas.	2.60	1.463
I am worried about the possibility of terrorist attacks in Las Vegas.	2.55	1.563
I am worried about the physical side-effects of traveling to Las Vegas.	2.54	1.536
I am worried about food safety problems in Las Vegas.	2.54	1.478
I am worried about getting injured in a car accident in Las Vegas.	2.45	1.458
I am worried that a trip to Las Vegas would not be compatible with my self-image.	2.41	1.525
I am worried about natural disasters in Las Vegas such as earthquakes, floods, and storms in Las Vegas.	2.39	1.425
I am worried that there might be epidemic diseases in Las Vegas.	2.22	1.353
I am worried that my trip to Las Vegas would not match my status in life (social class).	2.19	1.411

\* Adopted from Fuchs & Reichel (2006) / Scale: 1 = Strongly Disagree, 7 = Strongly Agree

#### 4.2. Perceived effectiveness of security measures

To identify the survey respondents' opinions regarding the perceived effectiveness of the hotel security measures proposed or deployed in the aftermath of One October shooting, several statements were developed. Table 3 displays the top five perceived effective security measures in terms of the level of agreement.

Table 3: Perceived effectiveness of on-going and proposed security measures

Security Measure/Procedure	Mean*	Standard Deviation
Having security personnel in plainclothes around the hotel property	5.58	1.159
Adopting new luggage scanners, which uses new technology to detect what's inside a baggage	5.38	1.275
Having metal detectors and devices which are not visible to the public at every entrance to the hotel property	5.38	1.408
Retraining the entire hotel workforce about observing people	5.36	1.231
Keeping guns out of hotel building is essential to safety.	5.25	1.687

## 5 CONCLUSIONS AND IMPLICATIONS

The findings of this study indicate that despite the One October tragedy, security risks are not a major concern for potential and past visitors. In fact, almost 40% of the respondents agreed that Las Vegas offered a higher level of security than other tourist destinations in the U.S. None of the presented nine risk types stood out as a concern for the respondents with the exception of financial risk concerns when traveling to Las Vegas. Contrary to some reports in the news media, the findings also suggest that Las Vegas visitors welcome the on-going and proposed security measures.

The findings point out to an opportunity for Las Vegas' hoteliers and promoters to build up on the already positive attitudes about Las Vegas' perceived higher levels of security in comparison to other similar destinations. The reported positive perception about the effectiveness of ongoing and emerging security measures means that Las Vegas hoteliers may consider keeping their guests informed about the enhanced security tools and procedures. Given the notable concerns about financial risk of traveling to Las Vegas, marketing campaigns could put more emphasis on affordability and value for money spent.

It should be noted that this study was conducted before the COVID-19 pandemic and tourists' concerns about the risks associated with traveling to any destination may have changed since the pandemic. Future related studies could further examine the potential changes in attitudes and perception of risk.

## REFERENCES

- Blankstein, A., Williams, P., Elbaum, R., & Chuck, E., (Oct 2, 2017). Las Vegas Shooting: 59 Killed and More Than 500 Hurt Near Mandalay Bay. NBC News. Retrieved from <https://www.nbcnews.com/storyline/las-vegas-shooting/las-vegas-police-investigating-shooting-mandalay-bay-n806461>.
- Bloomberg, C. (Dec 1, 2017). Las Vegas Tourism Saw Visitor Decline After Mass Shooting. Skift. Retrieved on September 26, 2020 from <https://skift.com/2017/12/01/las-vegas-tourism-saw-visitor-decline-after-mass-shooting/>.
- Chew, E. Y. T., & Jahari, S. A. (2014). Destination image as a mediator between perceived risks and revisit intention: A case of post-disaster Japan. *Tourism Management*, 40, 382-393.
- Feldberg, S. (2018, May 15). Las Vegas visitation down in first quarter of 2018. *Travel Weekly*. Retrieved from <https://www.travelweekly.com/North-America-Travel/Insights/Las-Vegas-visitation-down-in-first-quarter-of-2018>.
- Floyd, M. F., & Pennington-Gray, L. (2004). Profiling risk perceptions of tourists. *Annals of Tourism Research*, 31(4), 1051-1054.
- Floyd, M. F., Gibson, H., Pennington-Gray, L., & Thapa, B. (2004). The effect of risk perceptions on intentions to travel in the aftermath of September 11, 2001. *Journal of Travel & Tourism Marketing*, 15(2-3), 19-38.
- Fuchs, G., & Reichel, A. (2004). Cultural differences in tourist destination risk perception: An exploratory study. *Tourism (Zagreb)*, 52(1), 21-37.
- Fuchs, G., & Reichel, A. (2006). Tourist destination risk perception: The case of Israel. *Journal of Hospitality & Leisure Marketing*, 14(2), 83-108.
- Fuchs, G., & Reichel, A. (2011). An exploratory inquiry into destination risk perceptions and risk reduction strategies of first

- time vs. repeat visitors to a highly volatile destination. *Tourism Management*, 32(2), 266-276.
- George, R. (2003). Tourist's perceptions of safety and security while visiting Cape Town. *Tourism Management*, 24(5), 575-585.
- Isaac, R. K., & Velden, V. (2018). The German source market perceptions: how risky is Turkey to travel to? *International Journal of Tourism Cities*.
- Karl, M. (2018). Risk and uncertainty in travel decision-making: Tourist and destination perspective. *Journal of Travel Research*, 57(1), 129-146.
- King, D. (2017, Nov 30). Las Vegas shooting results in 4.2% fewer visitors. *Travel Weekly*. Retrieved from <https://www.travelweekly.com/Travel-News/Hotel-News/Las-Vegas-shooting-results-in-fewer-visitors>.
- Lacanalale, R. (September 17, 2020). Las Vegas woman becomes 60th victim of October 2017 mass shooting. *Las Vegas Review-Journal*. Retrieved on September 26, 2020 from <https://www.reviewjournal.com/crime/shootings/las-vegas-woman-becomes-60th-victim-of-october-2017-mass-shooting-2123456/>.
- Lawrence, C. (2017, Oct 6). 'Active Shooter' producer says, 'Las Vegas will never be the same'. *Las Vegas Review-Journal*. Retrieved from <https://www.reviewjournal.com/entertainment/tv/active-shooter-producer-says-las-vegas-will-never-be-the-same/>.
- Las Vegas Convention and Visitors Authority (LVCVA) (n.d.). Trends and Research. Retrieved on September 26, 2020 from <https://www.lvcva.com/research>.
- Las Vegas Convention and Visitors Authority (LVCVA) (2020). Visitor Statistics. Retrieved on September 26, 2020 from <https://www.lvcva.com/research/visitor-statistics/>.
- Martin, H. & Montero, D. (2018, Mar 1). Tourism slump continues in Las Vegas months after mass shooting. *Los Angeles Times*. Retrieved from <http://www.latimes.com/business/la-fi-vegas-gaming-revenue-20180301-story.html>.
- Montero, D. (2017, Nov 30). Vegas Strip gambling revenue plunges in October in aftermath of mass shooting. *Los Angeles Times*. Retrieved from <http://www.latimes.com/nation/la-na-vegas-shooting-tourism-20171130-story.html>.
- Moore, T. (2017, March 14). Las Vegas sees record tourism, visitor spending in 2016. *Las Vegas Sun*. Retrieved from <https://lasvegassun.com/news/2017/mar/14/las-vegas-sees-record-tourism-visitor-spending-in/>.
- Moore, T. (2017, Nov 30). LVCVA says mass shooting slowed Las Vegas tourism in October. *Las Vegas Sun*. Retrieved from <https://lasvegassun.com/news/2017/nov/30/lvcva-says-mass-shooting-slowed-las-vegas-tourism/>.
- Prince, T. (2018, Apr 26). Las Vegas shooting still hurting MGM Resorts business. *Las Vegas Review-Journal*. Retrieved from <https://www.reviewjournal.com/business/casinos-gaming/las-vegas-shooting-still-hurting-mgm-resorts-business/>.
- Rosenblatt, K. (Aug 20, 2018). Las Vegas shooting is deadliest in modern U.S. history. *NBC News*. Retrieved from <https://www.nbcnews.com/storyline/las-vegas-shooting/las-vegas-shooting-deadliest-modern-u-s-history-n806486>.
- Schulz, B. (October 11, 2018). Casinos still working to improve security after Las Vegas shooting. *Las Vegas Review-Journal*. Retrieved on September 26, 2020 from <https://www.reviewjournal.com/business/casinos-gaming/casinos-still-working-to-improve-security-after-las-vegas-shooting/>.
- Seabra, C., Abrantes, J. L., & Kastenholtz, E. (2014). The influence of terrorism risk perception on purchase involvement and safety concern of international travelers. *Journal of Marketing Management*, 30(9-10), 874-903.
- Sohn, H. K., Lee, T. J., & Yoon, Y. S. (2016). Relationship between perceived risk, evaluation, satisfaction, and behavioral intention: A case of local-festival visitors. *Journal of Travel & Tourism Marketing*, 33(1), 28-45.
- Sönmez, S. F., & Graefe, A. R. (1998). Determining future travel behavior from past travel experience and perceptions of risk and safety. *Journal of travel research*, 37(2), 171-177.
- Sönmez, S. F., Apostolopoulos, Y., & Tarlow, P. (1999). Tourism in crisis: Managing the effects of terrorism. *Journal of travel research*, 38(1), 13-18.
- Tasci, A. D., & Sönmez, S. (2019). Lenient gun laws, perceived risk of gun violence, and attitude towards a destination. *Journal of Destination Marketing & Management*, 13, 24-38.
- Velotta, R. N. (2017, Nov 30). Las Vegas tourism slips in wake of Oct. 1 shooting. *Las Vegas Review-Journal*. Retrieved from <https://www.reviewjournal.com/business/casinos-gaming/las-vegas-tourism-slips-in-wake-of-oct-1-shooting/>.
- Williams, A. M., & Baláz, V. (2015). Tourism risk and uncertainty: Theoretical reflections. *Journal of Travel Research*, 54(3), 271-287.
- Wong, J. Y., & Yeh, C. (2009). Tourist hesitation in destination decision making. *Annals of Tourism Research*, 36(1), 6-23.
- Yang, E. C. L., Khoo-Lattimore, C., & Arcodia, C. (2017). A systematic literature review of risk and gender research in tourism. *Tourism Management*, 58, 89-100.

---

*SUBMITTED: JUL 2020*

*REVISION SUBMITTED: SEP 2020*

*ACCEPTED: OCT 2020*

*REFEREED ANONYMOUSLY*

*PUBLISHED ONLINE: 30 OCT 2020*