

Consequence-based vs. Ethic-based Evaluations? Re-thinking Travel Decision-making amid a Global Pandemic

Xingyu Huang
Temple University

Xiang (Robert) Li
Temple University

Lu Lu
Temple University

Follow this and additional works at: <https://scholarworks.umass.edu/ttra>

Huang, Xingyu; Li, Xiang (Robert); and Lu, Lu, "Consequence-based vs. Ethic-based Evaluations? Re-thinking Travel Decision-making amid a Global Pandemic" (2021). *Travel and Tourism Research Association: Advancing Tourism Research Globally*. 60.
https://scholarworks.umass.edu/ttra/2021/research_papers/60

This Event is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Travel and Tourism Research Association: Advancing Tourism Research Globally by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact scholarworks@library.umass.edu.

Consequence-based vs. Ethic-based Evaluations?

Re-thinking Travel Decision-making amid a Global Pandemic

Introduction

Consumers' decision-making always involves risk assessments. For tourists, a travel decision usually involves simultaneously weighing of benefits and risks—academically termed “consequence-based evaluation” or “consequentialist evaluation” (Böhm, 2003). For example, amid the current pandemic, travel is desirable for its various benefits such as creating an enjoyable experience, promoting physical and mental health, and improving tourists' well-being (Chen & Petrick, 2013); however, it is also considered a high-risk activity, as tourists may spread and be infected with the virus. Recent studies have discussed how risk perceptions may influence tourists' travel intentions after the pandemic (e.g., Bae & Chang, 2020; Nguyen & Coca-Stefaniak, 2020). However, it appears these studies have largely focused on the impact of perceived risks but overlooked the role of travel benefits.

Notably, the pandemic has ushered in arguably a new type of travel consideration: travel shaming, i.e., the risks of being criticized for traveling irresponsibly during the pandemic. Recent media reports (e.g., CNN, 2021; Compton, 2020) suggested that travelers may face backlash and/or are blamed as irresponsible as well as selfish by people who believe that traveling during the pandemic can put others at risk. When travel may cause negative impacts or risks to others, travelers' decision-making could go beyond their own calculation of benefits as well as risks, and entail the ethical dimension. The latter is called ethic-based evaluation (Böhm, 2003). To our best knowledge, no previous research has explored the impact of ethical evaluation on intentions to travel.

In addition, it is likely that different antecedents may affect consequence-based and ethic-based evaluations differently during decision-making processes. Aiming to bridge these gaps, this paper attempts to expand the risk evaluation model by conceptualizing both consequence-based and ethic-based evaluations in travel decision-making. In doing so, it also explores how two antecedents of risk assessment, social trust and self-efficacy (Babcicky & Seebauer, 2017; Huurne & Gutteling, 2009) influence tourists' consequence-based and ethic-based evaluations.

Literature Review

Two aspects of risk evaluation

When one decides whether to do something risky, s/he often makes judgments based on its consequences, i.e., the benefits and risks brought to oneself. However, previous studies have demonstrated that consequence-based evaluation alone has inadequate power to predict behavioral intentions. Particularly, it has been suggested that ethical considerations play a crucial part in risk evaluation, which has been largely neglected in risk perception research (Böhm & Pfister, 2000). Therefore, risk evaluations can be judged from two aspects: consequence-based and ethic-based considerations (Böhm, 2003).

Consequence-based evaluation refers to “evaluating potential consequences or consequences that have already taken place” (Böhm, 2003, p 200). Scholars indicate that evaluations based on potential negative consequences/outcomes are equivalent to risk perceptions (Cowan & Kinley, 2014). Notably, Böhm and Pfister (2000) use the term “consequence-based evaluation” in a more

general sense, including positive consequences/benefit assessments in the risk research context. In the current study, we follow Böhm and Pfister (2000) and consider both perceived risks and benefits as consequence-based evaluation.

Ethical evaluation, on the other hand, captures ethical emotions to predict behavioral intentions in risk analyses. Ethical evaluation refers to “the judgment whether the risky behavior violates any ethical principles. Ethical judgments are judgments about what one ought or ought not to do in a certain situation” (Böhm, 2003, p 200). Ethical values are widely used when evaluating environmental risks, including environmental shame and guilt, a typical social pressure to act environmentally (Cowan & Kinley, 2014). Despite their crucial role in risk evaluation, ethical evaluation has not received much attention in previous risk evaluation research.

Hypotheses development

Consequence-based evaluations, attitudes, and behavioral intentions

The consequence-based evaluation has been widely studied in risk research (Liu et al., 2019). Per the analytic view of judgment and decision-making, risks and benefits are distinct concepts. In consumer behavioral research, Schiffman and Kanuk (2004) define perceived risks as the uncertainty that consumers face when they are unable to foresee the consequences, whereas perceived benefits can be defined as consumer beliefs about the extent to which he/she will become better from engaging in a specific activity (Kim et al., 2008). Some people rely on both perceived benefits and perceived risks when making a decision, while others rely predominantly on either benefit perceptions or risk perceptions (Kim et al., 2014). Hence, we hypothesize that amidst a global pandemic,

H1: Perceived benefits are positively related to attitudes towards travel.

H2: Perceived benefits are positively related to intentions towards travel.

H3: Perceived risks are negatively related to attitudes towards travel.

H4: Perceived risks are negatively related to intentions towards travel.

Ethic-based evaluations, attitudes, and behavioral intentions

Ethical evaluation plays an important role in risk analysis when one’s decisions affect others. For example, environmental behavior can usually affect other people (e.g., global pollution caused by non-environmental behavior). Thus, Böhm (2003, p. 201) maintains that “evaluation of environmental risks entails not only individual cost–benefit considerations, but also ethical judgments, such as the equitableness of outcomes.” Previous studies on pro-environmental attitudes and the purchasing of green products have demonstrated that the ethical evaluation of production is an important predictor of consumers’ attitudes/intentions towards purchasing sustainable products (Cerri et al., 2018). During the pandemic, the public health impacts of travel behavior have made the moral dimension of decision-making more consequential. Thus, we hypothesize that amidst a global pandemic,

H5: Ethic-based evaluation is negatively related to attitudes towards travel.

H6: Ethic-based evaluation is negatively related to intentions to travel.

“Attitude toward the behavior refers to people's evaluations of performing a specific behavior” (Huang et al., 2020, p. 3). Attitudes have long been regarded as an important predictor of behavioral intentions (Ajzen, 1991). Previous literature suggests that positive attitudes lead to higher behavioral intentions (McMillan & Conner, 2003). We hypothesize that amidst a global pandemic,

H7: Attitudes towards travel are positively related to intentions to travel.

The antecedents of risk evaluation

Research in risk communication claims that social trust and self-efficacy are important predictors of how the public responds to risks (Ter Huurne & Gutteling, 2009). Social trust proposes that public responses to risk communication depend heavily on the amount of trust put forth in managing agencies, which usually means trust in the government and the industry (Siegrist et al., 2000). Low trust is usually associated with higher risk evaluation (Liu et al., 2019). For instance, studies found that social trust has a negative effect on perceived risks and a positive effect on perceived benefits (Legendre & Baker, 2020; Lu et al., 2015). According to Böhm (2003), ethic-based evaluation is also a kind of risk evaluation. Thus, we argue that social trust can influence ethic-based evaluation negatively. Thus, amidst a global pandemic,

H8: Social trust is positively related to the perceived benefits of travel.

H9: Social trust is negatively related to the perceived risks of travel.

H10: Social trust is negatively related to the ethic-based evaluation of travel.

Self-efficacy is concerned with “people’s beliefs in their ability to influence events that affect their lives” (Bandura, 2010, p 1). In the risk management context, self-efficacy is positively related to the perceived sufficiency of risk-related information (Ter Huurne & Gutteling, 2009). If the consequences are personally controllable (i.e., high self-efficacy), then individuals’ perceived risks as well as ethic-based evaluation will be lower, and their perceived benefits will be higher. Thus, self-efficacy is presumably a significant predictor of how people perceive risks, benefits, and ethics of traveling amidst a global pandemic. We hypothesize,

H11: Self-efficacy is positively related to the perceived benefits of travel.

H12: Self-efficacy is negatively related to the perceived risks of travel.

H13: Self-efficacy is negatively related to the ethic-based evaluation of travel.

Methodology

This submission reports the preliminary findings of a two-phase study which conceptualizes travel decision-making in a risk-framework, particularly on the under-explored ethical/moral dimension. The current study (Phase 1) discusses how the ethic-based evaluation in conjunction with consequence-based evaluation can drive travel intentions. In our next step (Phase 2), we will further explore how to induce ethical emotions via message framing to promote responsible travel behavior.

For this study (Phase 1), data collection was conducted online with a consumer panel recruited from a professional survey company. We targeted U.S. residents over the age of 18 who have traveled for leisure at least once (internationally or domestically) in the past 12 months. Quota

sampling was used in reference to demographics data in 2019 released from the U.S. Census Bureau (United States Census Bureau, 2020). Variables in this study were measured by existing scales adopted from the literature, including social trust (Legendre & Baker, 2020; Liu et al., 2019), self-efficacy (Demuth et al., 2016), perceived risks (Babcicky & Seebauer, 2017; Yıldırım & Güler, 2020), perceived benefits (Kim & Jang, 2017; Lee & Lee, 2019), ethic-based evaluations (Muralidharan & Sheehan, 2018), attitudes (Huang et al., 2020) and intentions to travel (Quintal et al., 2010).

Results

A total of 1,216 valid questionnaires were collected. The majority (79.9%) of the respondents were between the ages of 21 and 64, and 46.6% were male. Nearly two-thirds of the participants' (61.2%) annual household income ranged from US\$ 30,000 to US\$ 104,999, and 62.9% of the participants had a college degree or higher.

Measurement model

Structural equation modeling (SEM) was adopted for model analysis for this study. First, a Shapiro–Wilk test was conducted with SPSS (Version 26). The result reported significant p-values for variables ($p < .001$), suggesting that the data distribution was non-normal. Therefore, the weighted least squares mean- and variance-adjusted (WLSMV) estimator which was designed for categorical variables might be a better choice (Muthén, 1984). WLSMV performs better than other estimations in processing non-normal data and the ordered-categorical data of Likert scales (Finney & DiStefano, 2006). Second, we assessed common method bias using Harman's one-factor test, our total variance extracted by one factor is less than the recommended threshold of 50%, indicating the absence of common method bias (Podsakoff et al., 2003).

Then, the reliability, convergent validity, and discriminant validity of constructs were tested. As reported in Table 1, the Cronbach's α coefficient ranged from 0.881 to 0.960 for all factors, indicating sufficient internal consistency. Also, the composite reliabilities were 0.70 or above (ranging from 0.918 to 0.962), indicating adequate internal validity and consistency for each construct in the model (van Griethuijsen et al., 2015).

Confirmatory Factor Analysis (CFA) was performed to examine the measurement model. The results of CFA indicated that our measurement model provides a good fit to the data ($\chi^2 (254) = 2182.016$, $p < .001$; CFI=0.981; TLI=0.978; SRMR=0.034). The convergent validity was verified by computing the Average Variance Extracted (AVE) and Composite Reliability (CR) for every construct. In our results, the AVE values of each construct were greater than 0.50, and the composite reliabilities were greater than 0.60, suggesting that the model had good convergent validity (Fornell & Larcker, 1981). The discriminant validity of the measurement model was tested by comparing the AVE values to the squared correlations between the corresponding constructs (Fornell & Larcker, 1981). In our study, all the AVEs were greater than the squared correlations of the paired constructs, indicating good discriminant validity.

Table 1 Descriptive statistics and confirmatory factor analysis results

Factors and items (Cronbach's alphas)	Mean	SD	Standardized factor loading	S.E.	p- Value	Composite reliabilities	AVE
Social trust (0.891)						0.918	0.789

Trust 1	3.38	1.925	0.804	0.012	<0.001		
Trust 2	3.65	1.762	0.925	0.007	<0.001		
Trust 3	3.96	1.766	0.930	0.007	<0.001		
Self-efficacy (0.927)						0.942	0.844
Efficacy 1	4.75	1.833	0.866	0.008	<0.001		
Efficacy 2	4.44	1.838	0.932	0.006	<0.001		
Efficacy 3	4.41	1.898	0.956	0.005	<0.001		
Perceived risks (0.881)						0.923	0.752
Risk 1	5.03	1.876	0.938	0.007	<0.001		
Risk 2	4.88	1.935	0.938	0.007	<0.001		
Risk 3	3.87	1.803	0.839	0.011	<0.001		
Risk 4	3.60	1.950	0.733	0.015	<0.001		
Perceived benefits (0.941)						0.954	0.776
Benefits 1	5.03	1.876	0.888	0.008	<0.001		
Benefits 2	4.88	1.935	0.855	0.008	<0.001		
Benefits 3	3.87	1.803	0.900	0.007	<0.001		
Benefits 4	3.60	1.950	0.907	0.007	<0.001		
Benefits 5	5.03	1.876	0.825	0.010	<0.001		
Benefits 6	4.88	1.935	0.906	0.006	<0.001		
Ethic-based evaluations (0.911)						0.942	0.844
Ethic 1	3.55	2.123	0.919	0.006	<0.001		
Ethic 2	4.04	2.209	0.959	0.007	<0.001		
Ethic 3	3.24	2.085	0.876	0.008	<0.001		
Attitudes (0.960)						0.962	0.894
Attitudes 1	3.61	1.778	0.907	0.005	<0.001		
Attitudes 2	3.64	1.704	0.966	0.003	<0.001		
Attitudes 3	3.61	1.767	0.963	0.003	<0.001		
Intentions (0.891)							
Intentions 1	4.09	2.102	0.978	0.004	<0.001	0.928	0.813
Intentions 2	3.86	2.150	0.956	0.004	<0.001		
Intentions 3	5.10	1.946	0.755	0.015	<0.001		

Structural model and hypothesis testing

We tested our research hypotheses by estimating the structural model shown in Fig. 1 with Mplus VERSION 8.3. The results suggested that our model had a good fit to the data (χ^2 (261) = 3777.953, $p < .001$; CFI=0.966; TLI=0.961; SRMR=0.056).

Figure 1 and Table 2 provide a summary of the SEM and the results of the examinations of research hypotheses. All the hypotheses were supported except for H4, H9, H10, and H11. The R^2 values indicate the explanatory power of the variable(s) leading to each construct. Specifically, social trust and self-efficacy explained 22.6% of the variance in perceived benefits, 56.9% of the variance in perceived risks as well as 56.9% of the variance in ethic-based evaluations. Furthermore, perceived benefits, perceived risks and ethic-based evaluations explained 66.4% variance of

attitudes to travel during COVID -19 and they explained 49.4% variance of intentions to travel during COVID -19 along with attitudes, indicating strong explanatory power. The results are shown in Figure 1 and Table 2.

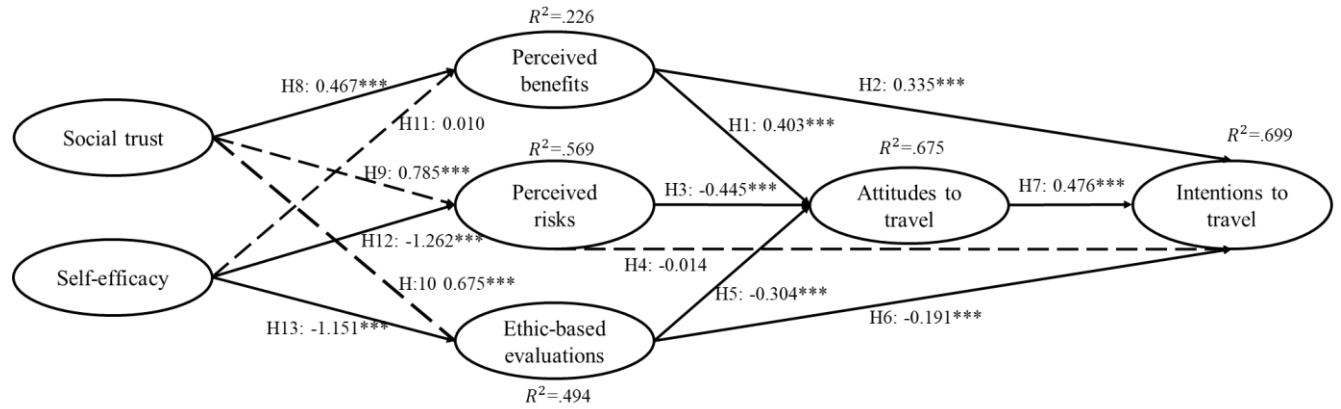


Figure 1 Results of the structural model

Notes: N=1216; *** p < .001, ** p < .01, * p < .05.

Table 2 Summary of the structural model results

Hypothesis	Paths	Coefficient	S.E.	P-Value	Results
H1	Benefits → Attitudes	0.403	0.019	<0.001	Supported
H2	Benefits → Intentions	0.335	0.023	<0.001	Supported
H3	Risks → Attitudes	-0.445	0.018	<0.001	Supported
H4	Risks → Intentions	-0.041	0.028	0.147	Unsupported
H5	Ethic → Attitudes	-0.304	0.019	<0.001	Supported
H6	Ethic → Intentions	-0.191	0.023	<0.001	Supported
H7	Attitudes → Intentions	0.476	0.033	<0.001	Supported
H8	Trust → Benefits	0.467	0.056	<0.001	Supported
H9	Trust → Risks	0.785	0.066	<0.001	Unsupported
H10	Trust → Ethic	0.675	0.066	<0.001	Unsupported
H11	Efficacy → Benefits	0.010	0.056	0.865	Unsupported
H12	Efficacy → Risks	-1.262	0.062	<0.001	Supported
H13	Efficacy → Ethic	-1.151	0.062	<0.001	Supported

Conclusion and Discussion

This paper makes contributions to the literature in three ways. First, we expand the risk framework by adding the ethical dimension, which applies particularly to tourist decision-making when travel might cause negative effects on others or the society. Second, we further demonstrate the prominence of the ethical dimension as a thwarting factor of travel that can directly influence behavioral intentions, whereas perceived risks fail to do so. Finally, we identified significant impacts of social trust and self-efficacy on both consequence-based and ethic-based evaluations.

As expected, there is a positive relationship between perceived benefits and attitudes/intentions to travel, which has been demonstrated by previous studies (Han & Hwang, 2013), but seldom in the risk context (e.g., a global pandemic). Finucane et al. (2000) have shown that high risks are often accompanied by high benefits. Therefore, when conceptualizing travel decision-making, scholars should not only focus on the impact of risk perceptions but also weigh in the effects of perceived benefits of a risky conduct.

On the other hand, perceived risks and ethic-based evaluations (e.g., travel shaming) negatively affect attitudes towards travel during the pandemic. However, perceived risks fail to exert a direct impact on travel intentions. In other words, although higher perceived susceptibility of risks and ethic-based evaluations can lower tourists' attitudes towards travel, only ethical evaluations can significantly discourage travel intentions during COVID-19. Therefore, our research extends the findings of environmental psychology to the travel context and underscores the ethic-based evaluation as a critical step in tourist decision-making process, especially for responsible tourism.

In terms of antecedents of risk evaluations, social trust has a significant positive influence on perceived benefits. Contrary to our expectations, people who trust governments, industry regulators and service providers are more concerned about the risks of contracting COVID -19 during travel and they are more likely to experience "travel shaming". A possible reason is that a high level of social trust means that individuals can do little about the crisis on their own but hope for governments and other public and private organizations to take control (Ma & Christensen, 2019). Thus, this high level of trust implies that tourists could feel powerless and experience more threat of the pandemic and experience more shame if they travel. Consistent with previous studies, self-efficacy plays an important role in the prediction of perceived risks and ethic-based evaluations (Huang et al, 2020). Thus, how to provide consumers with simple and effective risk prevention measures is critical in the context of a pandemic.

Our research provides important insights for policy makers and industries. First, ethic-based evaluation (e.g., travel shaming) plays an important role in tourists' risk-taking behavior, so policy makers and industry regulators should understand it and manage it better. It's also significant to encourage tourists to take responsible travel, because when tourists are traveling responsibly, there is no need to be ashamed of traveling. Second, even in high-risk situations, travel benefits still have a significant impact on tourists' willingness to travel. Therefore, it is important for destination managers and tourism service providers to emphasize the physical and psychological benefits of travel and provide supporting services and products. Finally, in the context of risk, improving customers' self-efficacy can effectively reduce their risk evaluation. Destination managers are advised to promote simple but effective preventive measures such as equipping tourists with sufficient knowledge and information to improve tourist perceptions of self-efficacy to reduce risk concerns.

References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Babicky, P., & Seebauer, S. (2017). The two faces of social capital in private flood mitigation: Opposing effects on risk perception, self-efficacy and coping capacity. *Journal of Risk Research*, 20(8), 1017–1037.

- Bae, S. Y., & Chang, P.-J. (2020). The effect of coronavirus disease-19 (COVID-19) risk perception on behavioural intention towards ‘untact’ tourism in South Korea during the first wave of the pandemic (March 2020). *Current Issues in Tourism*, 1–19.
- Bandura, A. (2010). Self-efficacy. *The Corsini Encyclopedia of Psychology*, 1–3.
- Böhm, G. (2003). Emotional reactions to environmental risks: Consequentialist versus ethical evaluation. *Journal of Environmental Psychology*, 23(2), 199–212.
- Böhm, G., & Pfister, H.-R. (2000). Action tendencies and characteristics of environmental risks. *Acta Psychologica*, 104(3), 317–337.
- Cerri, J., Testa, F., & Rizzi, F. (2018). The more I care, the less I will listen to you: How information, environmental concern and ethical production influence consumers’ attitudes and the purchasing of sustainable products. *Journal of Cleaner Production*, 175, 343–353.
- Chen, C.-C., & Petrick, J. F. (2013). Health and Wellness Benefits of Travel Experiences: A Literature Review. *Journal of Travel Research*, 52(6), 709–719.
- CNN (2021, February 19). *These Americans want you to rethink the pandemic phenomenon of “travel shaming.”* CNN. Retrieved February 23, 2021, from <https://www.cnn.com/travel/article/rethinking-travel-shaming-pandemic-trnd/index.html>
- Compton, N. B. (2020, September 1). Traveling was once social currency. Now it might get you shamed. *Washington Post*. <https://www.washingtonpost.com/travel/2020/09/01/pandemic-travel-shaming/>
- Cowan, K., & Kinley, T. (2014). Green spirit: Consumer empathies for green apparel. *International Journal of Consumer Studies*, 38(5), 493–499.
- Demuth, J. L., Morss, R. E., Lazo, J. K., & Trumbo, C. (2016). The effects of past hurricane experiences on evacuation intentions through risk perception and efficacy beliefs: A mediation analysis. *Weather, Climate, and Society*, 8(4), 327–344.
- Finney, S. J., & DiStefano, C. (2006). Non-normal and categorical data in structural equation modeling. *Structural Equation Modeling: A Second Course*, 10(6), 269–314.
- Finucane, M. L., Alhakami, A., Slovic, P., & Johnson, S. M. (2000). The affect heuristic in judgments of risks and benefits. *Journal of Behavioral Decision Making*, 13(1), 1–17.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Han, H., & Hwang, J. (2013). Multi-dimensions of the perceived benefits in a medical hotel and their roles in international travelers’ decision-making process. *International Journal of Hospitality Management*, 35, 100–108.
- Huang, X., Dai, S., & Xu, H. (2020). Predicting tourists’ health risk preventative behaviour and travelling satisfaction in Tibet: Combining the theory of planned behaviour and health belief model. *Tourism Management Perspectives*, 33, 100589.
- Huurne, E. F. J. ter, & Gutteling, J. M. (2009). How to trust? The importance of self-efficacy and social trust in public responses to industrial risks. *Journal of Risk Research*, 12(6), 809–824.

- Kim, Dan, Ferrin, D., & Rao, R. (2008). A Trust-Based Consumer Decision-Making Model in Electronic Commerce: The Role of Trust, Perceived Risk, and Their Antecedents. *Decision Support Systems*, 44, 544–564.
- Kim, DongHee, & Jang, S. S. (2017). Therapeutic benefits of dining out, traveling, and drinking: Coping strategies for lonely consumers to improve their mood. *International Journal of Hospitality Management*, 67, 106–114.
- Kim, J., Yeo, S. K., Brossard, D., Scheufele, D. A., & Xenos, M. A. (2014). Disentangling the influence of value predispositions and risk/benefit perceptions on support for nanotechnology among the American public. *Risk Analysis*, 34(5), 965–980.
- Lee, J., & Lee, Y. (2019). Does online shopping make consumers feel better? Exploring online retail therapy effects on consumers' attitudes towards online shopping malls. *Asia Pacific Journal of Marketing and Logistics*.
- Legendre, T. S., & Baker, M. A. (2020). Legitimizing Edible Insects for Human Consumption: The Impacts of Trust, Risk–Benefit, and Purchase Activism. *Journal of Hospitality & Tourism Research*, 1096348020914375.
- Liu, P., Yang, R., & Xu, Z. (2019). Public acceptance of fully automated driving: Effects of social trust and risk/benefit perceptions. *Risk Analysis*, 39(2), 326–341.
- Lu, X., Xie, X., & Xiong, J. (2015). Social trust and risk perception of genetically modified food in urban areas of China: The role of salient value similarity. *Journal of Risk Research*, 18(2), 199–214.
- Ma, L., & Christensen, T. (2019). Government Trust, Social Trust, and Citizens' Risk Concerns: Evidence from Crisis Management in China. *Public Performance & Management Review*, 42(2), 383–404.
- McMillan, B., & Conner, M. (2003). Using the theory of planned behaviour to understand alcohol and tobacco use in students. *Psychology, Health & Medicine*, 8(3), 317–328.
- Muralidharan, S., & Sheehan, K. (2018). The role of guilt in influencing sustainable pro-environmental behaviors among shoppers: Differences in response by gender to messaging about England's plastic-bag levy. *Journal of Advertising Research*, 58(3), 349–362.
- Muthén, B. (1984). A general structural equation model with dichotomous, ordered categorical, and continuous latent variable indicators. *Psychometrika*, 49(1), 115–132.
- Nguyen, T. H. H., & Coca-Stefaniak, J. A. (2020). Coronavirus impacts on post-pandemic planned travel behaviours. *Annals of Tourism Research*.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Quintal, V. A., Lee, J. A., & Soutar, G. N. (2010). Risk, uncertainty and the theory of planned behavior: A tourism example. *Tourism Management*, 31(6), 797–805.
- Siegrist, M., Cvetkovich, G., & Roth, C. (2000). Salient value similarity, social trust, and risk/benefit perception. *Risk Analysis*, 20(3), 353–362.

- Ter Huurne, E. F., & Gutteling, J. M. (2009). How to trust? The importance of self-efficacy and social trust in public responses to industrial risks. *Journal of Risk Research*, 12(6), 809–824.
- United States Census Bureau. (2020, June 25). *2019 Population Estimates by Age, Sex, Race and Hispanic Origin*. The United States Census Bureau. Retrieved February 23, 2021, from <https://www.census.gov/newsroom/press-kits/2020/population-estimates-detailed.html>
- van Griethuijsen, R. A., van Eijck, M. W., Haste, H., den Brok, P. J., Skinner, N. C., Mansour, N., Gencer, A. S., & BouJaoude, S. (2015). Global patterns in students' views of science and interest in science. *Research in Science Education*, 45(4), 581–603.
- Yıldırım, M., & Güler, A. (2020). Factor analysis of the COVID-19 Perceived Risk Scale: A preliminary study. *Death Studies*, 1–8.