Are Female Business Travelers Willing to Travel during COVID-19?: An Exploratory Study

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Abstract

The outbreak of the COVID-19 pandemic has significantly impacted the tourism industry. A successful recovery from the pandemic requires a clear understanding of the “new normal,” including tourists’ perceived risks, safety perceptions, attitudes, and willingness to travel. Guided by the Risk Perception Attitude (RPA) Framework, this study investigated female business travelers’ risk perception attitude and willingness to travel in the COVID-19 climate. This study segmented the sample into four distinct RPA groups, including the Avoidance, Proactive, Responsive, and Indifference groups. These groups differ in some demographic characteristics and the strength of willingness to travel. Findings also showed that anxiety, perceived safety, and consumer confidence mediate the relationships between the sample’s RPA and willingness to travel, but the exact relationship varies by groups. Finally, this paper discussed the theoretical contributions and practical implications of this study.

Keywords: COVID-19; female business travelers; risk perception attitude; perceived safety, anxiety, consumer confidence

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1. Introduction

The outbreak of the COVID-19 pandemic has posted direct threats to the public’s health and safety. The restrictions on travel and mass gatherings have negatively impacted the economy, especially the hospitality and tourism industry. In response to the challenges posed by the COVID-19, the industry has established protocols and guidelines during the re-opening stages. These initiatives aim to protect the health and safety of both employees and customers and help various businesses adapt to a “new normal” (U.S. Travel Association, 2020). Despite the industry efforts, the latest market report shows that the public is experiencing mixed feelings—while they are ready to travel, attend conferences, and engage in business activities, they are concerned about their safety, both at personal and societal levels (Bonjean et al., 2020). Thus, there is an urgent need to understand individuals’ perceptions of risk and safety in the COVID-19 climate and their readiness for a new normal (Gossling et al., 2020; Huynh, 2020).

Business travelers play a critical role in supporting the hospitality and tourism industry. Female business travelers now have emerged as a significant and distinctive sector, as they account for nearly half of all business travelers and assume different hospitality needs and preferences (Skift, 2020). Female business travelers are more concerned about their safety during business trips than their male counterparts (GBTA, 2018; Gomes and Montenegro, 2016). The heightened safety concerns, on some occasions, lead to tangible impacts on their productivity and overall feelings about business travel (GBTA, 2018). While such concerns have been noted in business travel studies, the knowledge of this important topic is still very limited, especially considering that safety concerns are becoming even more highlighted within the current situation involving COVID-19.
This study aimed to develop and test a conceptual model that offers insights into female business travelers' perceived risks, safety concerns, and willingness to travel in the COVID-19 climate. From a theoretical perspective, this study can extend our understanding of female business travelers' needs and preferences and help identify significant factors that affect their travel decisions in unsettling times. From a managerial standpoint, female business travelers serve as a valuable segment that the industry cannot simply overlook. This study's findings can offer practical implications for crafting effective management and marketing strategies specific to this segment, which is critical to the response to and recovery from the COVID-19 pandemic in hospitality and tourism.

2. Literature Review

2.1 COVID-19 and Its Impacts on Tourism and Travel

COVID-19 is a virus that can cause fatal respiratory disease and be easily transmitted between people (CDC, 2020). Since first being reported in China in late 2019, COVID-19 spread rapidly worldwide and was declared an official global pandemic in early 2020 (WHO, 2020). With almost 1.9 million confirmed cases, the United States (U.S.) currently has the largest number of COVID-19 cases in the world (CDC, 2020; WHO, 2020). As there is no vaccine and immediate treatment available, the U.S., like other countries, has adopted nonpharmaceutical interventions such as travel restrictions and stay-at-home orders requiring people to stay physically distanced from each other and be confined to activities that do not need extensive use of public space and much social interaction.

The hospitality and tourism industry, which covers sectors such as restaurants, airlines, attractions, events, and many more that provide services to customers, is one of
the most severely impacted industries. In addition to the loss of tourist income, the canceled flights and events, as well as the closed attractions, hotels, and restaurants, have all exerted impacts on different parts of the supply chain of the industry (Gossling et al., 2020). It is estimated that the hospitality and tourism industry will experience a $1.2 trillion loss in total economic impact in 2020 due to the outbreak of COVID-19 (U.S. Travel Association, 2020).

Similarly, a growing number of academic studies have paid attention to this area, examining issues like how COVID-19 impacted tourist arrivals (Farzanegan et al., 2020), the social costs of COVID-19 on tourism (Qiu et al., 2020), and the emergence of e-Tourism during COVID-19 (Gretzel et al., 2020). At the same time, Gössling et al. (2020) stress the significance of understanding the demand side’s short- and long-term behavioral responses, including business, leisure, and all other types of tourists. At an individual level, risk perception has been highlighted as a critical factor influencing travelers’ decisions and willingness to travel (Cabere et al., 2020; Sharifpour et al., 2014). At an organizational level, Crick and Crick (2020) recommend using a collaborative approach to manage the business-to-business relationship during a global pandemic; this approach is "coopetition" in nature and constitutes of both cooperative and competitive strategies.

2.2 Female Business Travelers

Business travelers are critical in tourism and hospitality. In 2019, 464.4 million business trips were recorded among U.S. residents, resulting in a $139 billion tourist income and a total economic impact of $334 billion. The number of female business travelers in the U.S. has increased over the last couple of decades. Women now comprise
33% of the business travel market (Skift, 2020). Parallel to this growing trend, scholars have shown increasing attention toward this segment of the travel market. Expectations, motivations, and preferences of this segment have been studied (Gomes and Montenegro, 2016; Lockyer, 2002). A consistent finding in previous studies is that female travelers usually have higher perceptions of risk and thus are more concerned about safety than their male counterparts (Mirehie et al., 2018; Yang et al., 2018). Examples of situations perceived as unsafe by female travelers include medical emergencies, flight cancellations or delays, and sexual harassment (GBTA, 2018; Gustafson, 2006; Wilson and Little, 2008; Yang et al., 2018).

In the early 1990s, research on business travelers found that women tend to pay more attention to the safety features of lodging facilities, such as the access to safe parking areas and restaurants (Hao and Har, 2014; Lutz and Ryan, 1993; Sammons et al., 1999), and room features such as deadbolt door locks, peepholes, bright hallways, and surveillance cameras on-site (McCleary et al., 1994). Consistently, Phadungyat’s (2008) study found that female business travelers’ choices of lodging facilities during business trips largely depend on safety and security features, where bright hallways, closed-circuit television, electrical key cards, and sprinkler system were all listed as critical selection criteria.

Except for Phadungyat’s (2008) study, most studies on business travelers in the past used mixed-gender samples and applied a gender comparison approach to investigate business travelers’ hospitality preferences. Our knowledge of the gendered perceptions of risk and safety that goes beyond accommodation remains limited. Similarly, not much is known about female business travelers’ safety concerns related to their overall traveling
experiences. Although previous research showed significant differences between men and women, gender-specific research that untangles the intricacies of perceptions, attitudes, and behaviors is still premature. This approach becomes even more critical in travel risk studies since factors such as sexual assault are notable concerns for women (GBTA, 2018).

Additionally, a major crisis such as the COVID-19 could have completely changed people’s risk perception (Liu et al., 2016; Sharifpour et al., 2014). As for female business travelers, the so-called “feminine” traits of care, consideration, and kindness may intensify their perceived risk. Concerns over being a carrier of the virus and exposing children and partners might be more prevalent among women due to the responsibilities they assume for the health and safety of others as caregivers (Savage, 2020). Therefore, it is crucial to investigate individuals’ perceptions and subsequent behavioral intentions through a gender-specific approach.

### 2.3 The Risk Perception Attitude Framework

The Risk Perception Attitude (RPA) framework, first proposed by Rimal and Real in 2003, was built upon the social cognition theory and the extended parallel process model. The central propositions of the framework suggest that individuals can be divided into groups according to their level of risk perceptions and efficacy beliefs. These groups vary by the propensity of enacting self-protective measures regarding different health problems (Rimal and Real, 2003; Skubisz, 2014). These four groups are: (1) Responsive group (High Efficacy, High Risk,), which has the strongest motivation to take self-protective actions; (2) Avoidance group (Low Efficacy, High Risk,), which is less likely
to enact preventive measures, (3) Proactive group (High Efficacy, Low Risk), which typically perceives little immediate threat, but generally desires to protect themselves; and (4) Indifference group (Low Efficacy, Low Risk), which is unlikely to practice any protective measures since they do not feel threatened, and they do not believe in the effectiveness of the preventive measures in mitigating certain risks.

The increasing popularity of the RPA framework mainly lies in its segmenting approach, an essential component in social marketing that can effectively divide the public into distinctive groups of audiences (Skubisz, 2014). The RPA framework has been used to study various health behaviors, such as food safety, risk information seeking, and workplace safety (Skubisz, 2014; Turner et al., 2006). The RPA framework has also been utilized to examine issues related to tourism and travel. Liu, Schroeder, and Pennington-Gray (2016), for instance, employed the RPA framework to explore how terrorism-related perceived risk affected American tourists’ intentions of visiting Jordan. Similarly, guided by the RPA framework, Wang et al. (2019) analyzed adventure tourists’ enactment of self-protective measures. These studies’ findings together support the adequacy of using the RPA framework to explicate the dynamics between tourists’ perceived risk, efficacy beliefs, and behavioral responses. Hence, it was deemed to fit the purpose of this study and was used as the primary theoretical framework.

As an exploratory attempt, this study aimed to test the suitability of the RPA framework in investigating female business travelers’ willingness to travel during the climate of COVID-19. The essence of the RPA framework lies in dividing individuals into different segments based on their perceived risk and efficacy beliefs. Therefore, this study presents the following hypothesis:
**Hypothesis 1.** The respondents can be divided into four different RPA groups based on perceived susceptibility, perceived severity, self-efficacy, and response-efficacy.

2.4 Perceived Safety, Anxiety, and Consumer Confidence

2.4.1. Perceived Safety

The RPA framework was founded on the cognitive process of how individuals assess a situation and make decisions about enacting certain behaviors. At the same time, the affect heuristic argues that emotional responses also drive people’s evaluation of risky situations, which is well represented in the “risk-as-feelings” hypothesis (Loewenstein et al., 2001). Perceived safety is normally understood as the feeling of being risk-free and safe, and it can be seen as an affective component of perceived risk (Slovic and Peters, 2006). Such feeling is critical in tourists’ decision-making process in unsettling times since it affects one’s RPA as well as their subsequent decisions on enacting preventive measures (Wang et al., 2019) and visiting certain destinations (Liu et al., 2016). Therefore, as an affective manifestation, perceived safety may also mediate the relationships between female business travelers RPA and their willingness to take business trips during crisis times.

2.4.2. Anxiety

Anxiety refers to the feeling of “being nervous, apprehensive, stressed, vulnerable, uncomfortable, disturbed, scared, or panicked” (Resinger and Movando, 2005, p. 214). Travel anxiety can have profound effects on travelers’ decisions and behaviors (McIntosh et al., 1998). Many studies in public health have proved that anxiety can directly and immediately affect one’s enactment of protective measures (Segrin, 2014). In the context of hospitality and tourism, Resinger and Movando (2005) found that
perceived safety can mediate the relationship between travelers’ anxiety and travel intentions. Resingner and Crotts (2009) further noted that women tend to perceive international travel as riskier, more anxious, and less safe, which leads to decisions of taking less frequent international trips. Their findings also indicated that anxiety was a major predictor of women’s travel intentions. Despite these efforts, female business travelers remain an underexplored population; especially, researchers know very little about the way their anxiety interact with perceived safety and how these factors may affect their willingness to travel in uncertain times.

2.4.3. Consumer Confidence

Consumer Confidence, which refers to people’s general feelings about future economic conditions, has been traditionally treated as a key indicator of economic growth (Ludvigson, 2004; Merkle et al., 2003). At an individual level, confidence reflects consumers’ evaluation of a product and indicates the probability of actual purchase (Ludvigson, 2004). Thus, it has become an important variable in marketing and advertising studies (Bergkvist, 2009). When it comes to hospitality and tourism, Dickman (2003) contended that oftentimes a lack of confidence leads to people’s reluctance to travel. The influence of confidence is even more evident during a crisis, as people without much confidence tend to be risk-aversive and avoid dangerous situations, including specific destinations in crisis (Lim, 2017; Valencia and Crouch, 2008). People’s confidence can be manifested through different aspects, such as self-confidence and consumer confidence. Current studies in hospitality and tourism have explored travelers’ self-confidence (e.g., Valencia and Crouch, 2008), which focuses on travelers’ knowledge and competency. Consumer confidence, which concentrates on people’s
estimation of and confidence in the overall economic condition, has not been studied much in tourism (Merkle et al., 2003).

Consistent with the RPA framework’s central propositions, this study tried to explore the group differences regarding individual characteristics, perceptions, attitudes, and behaviors. This study also tried to investigate the potential mediating relationships among the variables. Particularly, this study treated the willingness to travel as the dependent variable, and used perceived safety, anxiety, and consumer confidence as the mediators. Accordingly, the following two hypotheses were proposed:

**Hypothesis 2.** Significant differences exist among different RPA groups regarding (a) individual characteristics, (b) their willingness to take business trips, (c) perceived safety, (d) travel anxiety, and (e) the level of consumer confidence.

**Hypothesis 3.** The relationships between the respondents’ RPA and their willingness to take business trips are mediated by (a) travel anxiety, (b) perceived safety, and (c) confidence.

### 2.5 Conceptual Model Development

The purpose of this study is to investigate female business travelers’ Risk Perception Attitudes and willingness to travel in the current climate of COVID-19. Based on the literature review, this study developed a conceptual model, which is mainly derived from the RPA framework and includes affective components, such as perceived safety, anxiety, and consumer confidence (See Figure 1). As an exploratory attempt, this study tried to test the model and identify the major factors that affect female business travelers’ willingness to take business trips.

[Insert Figure 1 Here]
3. Methods

3.1 Data Collection

This study used a purposive sampling method and purchased an online panel of female business travelers from Qualtrics. This approach not only provides the researchers with easy and quick access to a large and diverse sample but also is more cost-effective. To participate in this study, an individual must satisfy the following criteria: (1) above 18 years old, (2) currently employed, and (3) have taken at least one business trip in the past 12 months. A pilot test was conducted where 30 individuals took the survey. Based on their feedback and the results, the questionnaire was revised and then distributed to the panel. Data collection started in mid-May, was ongoing for about two weeks, and resulted in a total of 420 completed, usable responses. Following the suggestions provided by Teheseen, Ramayah, and Sajilan (2017), this study managed the common methods bias through procedural remedies. First, a pilot test was conducted, and the results were used to revise the survey. This approach can ensure that the questionnaire is concise, clear, and does not contain double-barreled questions. Second, we randomized the answer options of multiple-choice questions, which reduces the negative impacts of order bias. Third, we placed temporal separations between the sections measuring independent and dependent variables, which is an important step to decrease the adverse effects of common methods bias.

3.2 Measurement

The dependent variable in this study was the respondents’ willingness to travel during the COVID-19 pandemic. The respondents were asked to indicate their willingness to take business trips in the next three and six months, which covers a critical
time period (i.e., August – November 2020) where most states in the U.S. have re-opened and need economic stimuli. A 5-point Likert scale ranging from “1 = very unwillingly” to “5 = very willingly” was used to measure the variables (Cronbach’s α = .83).

There are three mediators in the conceptual model, including perceived safety, anxiety, and consumer confidence. Perceived safety was measured by asking the respondents to rate how safe they would feel about taking a business trip through a 7-point semantic differential scale where “1 = very unsafe” and “7 = very safe” (Adopted from Liu et al., 2016). Confidence were measured by asking the participants to estimate the likelihood of everything returning to normal in the next three months on a 5-point Likert scale ranging from “1 = very unlikely” to “5 = very likely” (Adopted from Merkle et al., 2003). Anxiety was measured by asking the respondents to reflect on their feelings about taking business trips on three 7-point semantic differential scales (Adopted from Resinger and Mavondo, 2005). The measurement on travel anxiety appears to be reliable (Cronbach’s α = .71).

Participants’ risk perception attitudes were measured through four key variables: self-efficacy, response efficacy, perceived severity, and perceived susceptibility. Perceived severity was measured by asking the participants to evaluate how severe the consequences would be if they were infected by COVID-19 during their business trips on a 5-point Likert scale ranging from “1 = not severe at all” to “5 = very severe” (Adopted from Rimal and Real, 2003). Perceived susceptibility was measured by asking the participants to rate how likely they were to get infected by COVID-19 during their business trips through a 5-point scale where “1 = very unlikely” and “5 = very likely” (Adopted from Rimal and Real, 2003). Self-efficacy was measured by asking the
respondents to indicate their confidence in their ability to protect themselves from getting infected by COVID-19 during business trips using a 5-point Likert scale where “1 = not confident at all” and “5 = very confident” (Adopted from Rimal and Real, 2003).

Response efficacy was measured by asking the participants to assess the effectiveness of six industry measures in protecting them from getting infected by COVID-19 during business trips through a 5-point Likert scale where “1 = not effective at all” and “5 = very effective” (Adapted from Liu et al., 2016). These measures included (1) requiring all employees to wear masks, (2) enforcing social distance on site, (3) requiring customers to wear masks on site, (4) limiting the capacity of venues, (5) having hand sanitation stations set up on site, and (6) having strict sanitation/cleaning procedures in place. The scale on response efficacy appears to be reliable (Cronbach’s $\alpha = .86$).

The survey also collected information related to respondents’ individual characteristics, such as demographics (e.g., age, marital status, education level, sexual orientation, and number of children), employer information (e.g., type of organization they work at, years of working experience), business travel experiences (e.g., the average number of business trips), and business travel patterns (e.g., how often they visit domestic/international destinations, how often they travel alone/in groups).

3.3 Data Analysis

This study used the Statistical Package for Social Sciences (SPSS) Version 25 to complete data analysis. To start with, a series of descriptive analyses were operated to obtain a basic understanding of the sample profile. This study then examined the validity and reliability of the measurements. For single-item measurements, a test-retest method was used to compare the pre-test results of the survey findings (Leech et al., 2005). For
multiple-item measurements, reliability tests were employed in SPSS (Leech et al., 2005). To test the validity, this study examined the results of correlation tests and calculated the heterotrait-monotrait ratio of correlations (HTMT) (Henseler, 2017; Creswell, 2005).

To test the first hypothesis, this study conducted a cluster analysis. The cluster analysis in this study featured a deductive approach, where the selection of the clustering variables (i.e., response efficacy, self-efficacy, perceived susceptibility, and perceived severity) and the expected number and characteristics of groups (Indifference-, Avoidance-, Responsive-, Proactive Group) were all based on the RPA framework. The deductive approach was appropriate in this study, as the solution can identify the most internally consistent groups and take into account the influences of all key variables (Ketchen and Shook, 1996). From a practical perspective, the results of cluster analysis can reveal the structure of complex data, determine the target segment for various applied initiatives, and allow practitioners to reallocate resources and maximize the effectiveness of different measures (Clatworthy et al., 2005).

To test the second hypothesis, this study conducted chi-square tests and ANOVA tests to compare the groups regarding individual characteristics and outcome variables (i.e., their willingness to take business trips, perceived safety, travel anxiety, and the level of consumer confidence). Lastly, this study used the PROCESS macro (Model 6) to test the third hypothesis, which focused on the mediating relationships between the respondents’ RPAs, perceived safety, anxiety, confidence, and willingness to take business trips. PROCESS is a computational procedure for SPSS that runs mediation
analysis – it is regression-based, uses a bootstrapping method, and can construct bias corrected (Hayes, 2012).

4. Results

4.1 Sample Profile

As shown in Table 1, the respondents’ age ranged from 18 years old to 78 years old, and the majority (65%) of them fell in the category of 24-44 years old. The greatest percentage identified as heterosexual (79.3%) and white (73.6%). Most respondents (60.7%) held a bachelor’s degrees, and about one third (32.9%) had either a professional or graduate degree. More than half of the participants reported being married (52.6%) with children (51.9%). Fifty percent indicated being currently employed in for-profit organizations. The majority of the respondents (90.2%) took around 1-5 business trips per year, and almost half (49.3%) of them have been taking business trips for 1-5 years. Domestic destination (M = 3.97, SD = 1.28) were visited at a higher frequency than international destinations (M = 1.50, SD = .79). The frequency of solo trips (M = 2.89, SD = 1.34) was found to be similar to the frequency of group travels (M = 2.45, SD = 1.19).

[Insert Table 1 Here]

4.2 Hypotheses Testing Results

Hypothesis 1. The respondents can be divided into four different RPA groups based on perceived susceptibility, perceived severity, self-efficacy, and response-efficacy.

To test the first hypothesis, a cluster analysis was conducted where the data were first scanned and pre-clustered and then finalized through a standard hierarchical clustering algorithm. Based on the RPA framework (Rimal and Real, 2003), this study used the following variables to identify the clusters: (1) perceived severity, (2) perceived
susceptibility, (3) self-efficacy, and (4) response efficacy. Particularly, this study used Schwarz’ Bayesian Information Criterion (BIC) to identify the clusters, with log likelihood as the distance measure. Four clusters were generated as a result. The value of silhouette measure of cohesion and separate is .04, which is above the acceptance level of .2 (Leech et al., 2005). The results further indicated that perceived susceptibility is the most important predictor (Predictor Importance = 1), followed by self-efficacy (Predictor Importance = .81), response efficacy (Predictor Importance = .69), and perceived severity (Predictor Importance = .56).

The results of a series of ANOVA tests showed that there are significant differences between groups regarding all RPA variables, such as perceived severity (F(3, 418) = 272.38, p <.01), perceived susceptibility (F(3, 418) = 78.65, p <.01), self-efficacy (F(3, 418) = 191.05, p <.01), and response efficacy (F(3, 418) = 16.40, p <.01). The results of post-hoc analyses indicated that in terms of perceived severity, at a significant level of .01, the average score of Cluster 1 (M= 4.36; SD = .60) is significantly higher than Cluster 2 (M = 2.07, SD = .72, p<.01) and Cluster 4 (M = 3.31, SD = .78, p <.01), but not Cluster 3 (M = 4.49, SD = .56, p = .171). Regarding perceived susceptibility, similarly, at a significance level of .01, the average score of Cluster 1 (M= 3.87, SD = .96) is significantly higher than Cluster 2 (M = 2.01, SD = .72, p < .01) and Cluster 4 (M = 3.31, SD = .78), but not Cluster 3 (M = 3.61, SD = 1.01, p = .034). Thus, with respect to perceived risk, both Cluster 1 and Cluster 3 can be ranked as high risk, while Cluster 2 and Cluster 4 can be deemed as low risk.

When it comes to self-efficacy, the results showed that, at a significant level of .01, the average score of Cluster 2 (M = 3.90, SD = .69) is significantly higher than
Cluster 1 (M = 1.75, SD = .69, p < .01) and Cluster 4 (M = 2.43, SD = .80, p < .01), but not Cluster 3 (M = 3.66, SD = .70, p = .022). With respect to response efficacy, the results indicated that, at a significance level of .01, the average score of Cluster 2 (M = 3.71, SD = .88) is significantly lower than Cluster 3 (M = 4.18, SD = .71), but the score is still higher than Cluster 1 (M = 3.43, SD = .98, p = .025) and Cluster 4 (M = 3.48, SD = .83, p = .054). Overall, regarding efficacy beliefs, Cluster 2 and Cluster 3 can be labeled as high efficacy, and Cluster 1 and Cluster 4 can be labeled as low efficacy.

In summary, according to the RPA framework, Cluster 1 fits the description of the Avoidance Group (N = 100), which is characterized by Low Efficacy, High Risk; Cluster 2 is consistent with the definition of Proactive Group (N = 84), which is characterized by High Efficacy, Low Risk; Cluster 3 best exemplifies the Responsive Group, which is characterized by High Efficacy, High Risk; and Cluster 4 can be defined as the Indifference Group, which is characterized by Low Efficacy, Low Risk. The findings here supported H1.

**Hypothesis 2.** Significant differences exist among different RPA groups regarding (a) individual characteristics, (b) their willingness to take business trips, (c) perceived safety, (d) travel anxiety, and (e) the level of consumer confidence.

This study conducted chi-square tests and ANOVA tests to test H2. The results are presented in Table 2. Regarding willingness to travel, the Proactive group had the highest score (M = 3.31, SD = 1.13). The Avoidance group had the lowest average score (M = 1.98, SD = .91). With respect to anxiety, the Avoidance group (M = 5.84, SD = 1.09) had the highest score than all other groups. When it comes to consumer confidence, both the Proactive group (M = 2.46, SD = .98) and the Responsive group (M = 2.47, SD = 1.22) reported a higher average value than others.
Furthermore, the results showed that the groups were distinctive in terms of race/ethnicity ($\chi^2 = 11.27, p = .01$), education level ($\chi^2 = 13.69, p = .03$), the type of organization they were employed at ($\chi^2 = 13.12, p < .01$), and the number of years they have been taking business trips ($\chi^2 = 23.16, p < .01$). More specifically, the Responsive group had a larger number of ethnic minority members than other groups. Regarding the education level, interestingly, the participants who had professional or graduate degrees were more likely found in either the Avoidance group or the Responsive group. Also, a larger percentage of members in the Proactive group worked in for-profit organizations. Lastly, the respondents who have taken business trips for more than 10 years were more likely to fall in the Avoidant group, while those who had a business travel history of less than 5 years were more likely to be placed in either the Proactive or the Responsive group. The findings here provided partial support for H2.

**Hypothesis 3.** The relationships between the respondents’ RPA and their willingness to take business trips are mediated by (a) travel anxiety, (b) perceived safety, and (c) confidence.

To test H3, the PROCESS macro was used to run the tests (Model 6, Bootstrap = 10,000), with Indifference group (Cluster 4) as the reference group. As shown in Table 3, the overall model was statistically significant and explained 39% of the variance in the dependent variable ($R^2 = .39, p<.01$). Additionally, the relationships between the respondents’ RPA and willingness to travel were mediated by anxiety, perceived safety, and consumer confidence, but the particular relationship varies by groups. For the Avoidance group and the Proactive group, travel anxiety not only mediated the relationships between RPA and willingness to travel by itself, but also had combined
effects on the dependent variable, along with perceived safety and consumer confidence. For the Responsive group, interestingly, the relationship between their RPA and willingness to travel was mainly mediated by consumer confidence, meaning that for members in this group, the more confident they felt about the overall economic condition, the more willing they were to take business trips, regardless of their level of anxiety and perceived safety. Collectively, the results here provided partial support to H3.

[Insert Table 3 Here]

5. Discussion

This study’s goal was to investigate female business travelers’ risk perception attitudes and willingness to travel in the current climate of COVID-19. The primary findings showed that the sample could be divided into four groups that are distinctive in terms of risk perception attitudes, willingness to travel, and feelings about taking business trips (i.e., anxiety, consumer confidence, perceived safety). These findings directly support applying the RPA framework to this study context and highlight the significance of using a segmentation approach in understanding the hospitality market in the COVID-19 climate. Identifying the PRA groups is also beneficial for practitioners to create customized messages to effectively communicate with female business travelers concerning business trips and COVID-19.

This study finds that perceived susceptibility and self-efficacy are the most important segmenting variables. This is different from previous studies (e.g., Liu et al., 2016; Wang et al., 2019), where all four RPA variables were used to generate groups. In the present study, perceived susceptibility refers to the participants’ self-evaluation of the risk of getting infected with COVID-19 during business trips. It serves as one of the
underlying dimensions of people’s perceived risk and can be either attenuated or amplified through “psychological, social, institutional, and cultural processes” (Kasperson et al., 1998, p. 177). In this context, the heightened sensitivity can be attributed to the amount and consistency of media attention paid to COVID-19 (Gossling et al., 2020). Without proper information, the public can be easily affected by the media, become panic, get scared, and feel vulnerable to the ongoing situation (Cabere et al., 2020; Kasperson et al., 1988; Sharifpour et al., 2014).

Another important segmenting variable identified in this study is self-efficacy, which deals with participants’ belief in their competencies to protect themselves from COVID-19 during business trips. Self-efficacy drives people’s behavioral changes and has been the center of many health communication campaigns (Feeley, 2014). The importance of enhancing self-efficacy is also noted in the tourism literature, which suggests that individuals who have confidence in their self-protection competencies are more likely to travel even in uncertain situations (Liu et al., 2016). An increased level of self-efficacy typically results from knowledge, which can be accumulated through past travel experiences or information (Rimal and Real, 2003). Proper communication, either through public health communication or internal communication, becomes necessary because the intended audience can be provided with materials and relevant information that help increase their knowledge and self-efficacy.

This study further compared the four RPA groups regarding their characteristics. Previous studies (Liu et al., 2016; Mirehie et al., 2020; Reisinger and Mavondo, 2005) showed that female travelers tend to be cautious and risk-avoiding. Interestingly, this study finds that ethnicity, education level, and past business travel experiences are related
to female business travelers’ RPAs. This indicates that while there are some similarities in perceptions and behavior based on gender, the female travel market is not homogenous and can be divided into smaller segments (Mirehie et al., 2018). This aligns with the third wave feminism school of thought, suggesting that women are not a broad uniform category of human beings; instead, each of them has their unique thoughts, life experiences, and holds a unique set of identities (Tong, 2009).

This study also finds that the RPA groups are different regarding travel willingness, perceived safety, anxiety, and consumer confidence. Consistent with previous studies (Liu et al., 2016; Wang et al., 2019), the Proactive and Responsive groups express the strongest willingness to travel. However, the underlying drivers for these two groups are different. For the Proactive group, it is anxiety that affected their travel decisions, while for the Responsive group, the willingness to travel depends mainly on the level of consumer confidence. As expected, the Avoidant group, which features the condition of High Risk and Low Efficacy, tends to be most anxious and less willing to take business trips during COVID-19. This is consistent with both the public health literature (Skubisz, 2014) and the tourism literature (Liu et al., 2016).

Lastly, there are clear indicators of anxiety and fear of female business travelers due to this pandemic. The traditionally expected gender roles can negatively affect women’s business travel decisions (Gustafson, 2006). Mothers with young children tend to travel less frequently, which indicates a more significant demand for domestic work on women (Gustafson, 2006). The COVID-19 situation could have exacerbated the already gendered business travel. Women are pushed to become the primary caregivers within households, resulting in deprioritizing their paid work (Savage, 2020). Their safety
concerns may also have become more prevalent considering the possibility of contracting the virus and/or being an asymptomatic carrier, which can be detrimental to the health and safety of themselves and their loved ones. Previous research shows that female tourists usually are dominated by anxiety, which leads to the overall feeling of being less safe (Mirehie et al., 2020; Reisinger and Crotts 2009). Now their concerns related to COVID-19 may have raised their level of anxiety even higher, leading to fears and hesitations in taking business trips during a global pandemic. Interestingly, this study finds that the effects of anxiety are more evident for the Avoidance and Proactive groups than others. For these two groups, anxiety affects their sense of safety, consumer confidence, and, ultimately, willingness to travel. The results here not only illustrate the roles played by anxiety, perceived safety, and consumer confidence in business tourists’ decision-making process but also underscore the essence of situational factors as the influences of these variables vary by the respondents’ RPAs.

6. Conclusions

The unprecedented outbreak of the COVID-19 has dramatically impacted all aspects of our society and the economy. As the hospitality and tourism industry moves toward a new normal, there is a need to understand the changing perceptions and behaviors of the market and to provides insights to manage business-to-customer as well as business-to-business strategies during a global pandemic.

6.1 Practical Implications

By studying female business travelers’ RPAs and travel willingness, this study provides several practical implications. First, business travelers, by nature, are traveling to be productive with specific outcomes in mind. Managers should be aware that efficacy
beliefs are key in these uncommon times of traveling. It is imperative for organizational leaders to ensure their business travelers can meet and overcome the new or perceived challenges when travelling. Sharing updated and relevant COVID-19 information on mitigating practices will help to reassure female travelers and reduce uneasiness.

Second, managers may consider offering travel health risk trainings and counseling services for those requiring mental health support. When communicating with female employees, attention should be paid to group differences. As revealed in the findings, both education level and business travel history can be indicators of such differences. In-depth conversations may be necessary to remove any additional concerns.

Third, when arranging business trips, collaborating with travel management companies (TMCs) and travel safety and security firms would be a good investment for organizations. These firms offer customized services, including 24-hour call centers, updated global travel advisories, destination-specific information, and details on any changes implemented at critical travel points (i.e., airports, rail stations, restaurants) and safety requirements for travelers (i.e., masks, temperature checks, quarantine).

Lastly, another important goal of business travel is to establish and maintain positive business-to-business relationships. As Crick and Crick (2020) recommend, a collaborative approach should be implemented in organizations during and after a pandemic crisis like COVID-19. This concentration should be acknowledged by managers and function-level employees. In light of their suggestions, different organization can collaborate, share necessary resources, and establish a mechanism that ensures safe business travel.
6.2 Limitation and Future Research

We acknowledge that this study has several limitations and delimitations. First, the study was delimited to female business travelers within the U.S., and further research is needed to test the generalizability of the findings among other samples. Second, this study only focused on women; future studies that focus on men can provide complementary knowledge on this topic leading to a more rounded understanding of tourists’ behavior. Third, this study was conducted in May 2020 when the re-opening process just started. We should be aware that any new development related to this issue (i.e., the invention of a vaccine, the second wave of the pandemic) may have direct effects on the public’s perception and responses. Therefore, longitudinal studies are needed to track the progress of the public’s RPAs and reactions toward COVID-19. Fourth, organizational support plays an important role in facilitating business travel, while the findings of our preliminary studies show that most respondents in this study were not very familiar with their institution travel policy and travel support. Future studies should consider this and further explore the role played by organizational support in business travelers’ decision-making process.
References


