The Impacts of Perceived Risk in Senior Travel: Exploring the Moderating Roles of Destination Image and Involvement

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Abstract
This study aims to understand senior’s travel risk perceptions and examines the impacts of risk perceptions on their travel behaviors. Moreover, the moderating effects of destination image and involvement on the impact of travel risk are also discussed. Questionnaire survey was conducted using seniors as the sample. A total of 290 valid respondents answered their comments on the research variables. The results in this study are as follows. Firstly, senior’s risk perception in travel can affect revisit intention. For example, expectation risk perception and socio-political risk perception can impact senior traveler’s revisit intention; however, physical harm risk perception can increase their revisit intention. Furthermore, the moderating role of destination image is significant on the influence of financial risk on revisit intention. Moreover, destination image also mitigates the impact of mass risk on revisit intention. In addition, the moderating role of involvement is significant on the influence of site-related physical risk on revisit intention.

Key Words: Senior traveler, perceived risk, destination image, involvement
JEL Classification: L83, M31
1. Introduction

The number of seniors is due to rise in the context of world population’s growth and aging (Moal-Ulvoas and Taylor 2014). Many seniors in this generation enjoy better health, more time and greater disposal income (Moal-Ulvoas and Taylor 2014; Sangpikul 2008). This potential growing market becomes significantly for travel marketers. Due to the characteristics of travel, customers are not able to see or experience the travel services before their departures. Therefore, risk perception of the destination is a critical issue for travelers to make the decision. In general, seniors are more sensitive and easier to be affected by their risk perceptions. Therefore, the issue of senior’s travel risk perceptions is important to understand.

Based on previous description that individual’s risk perception would impede his/her travel behaviors. Exploring the facilitating factors that could encourage seniors to travel is essential. Destination image is recognized as an important element to affect tourists’ decisions when they select a destination (Lee 2009). While travelers have good image of the place, they will feel safer to travel. Moreover, involvement is related to amount of attention (Kim, Haley and Lee 2008). Individual’s different involvement level on the product or service will affect his/her final decision. Based on the statements, this study suggests that destination image and involvement could be regarded as critical moderators that mitigate the impact of risk perception and facilitate senior’s travel behaviors. However, few studies have included these factors and discussed the moderating effects on senior’s travel behaviors.

Based on above research motivations, the main purposes of this paper are to understand senior’s travel risk perceptions and examine the impacts of these risk perceptions on their travel behaviors. Moreover, the moderating effects of destination image and involvement on the impacts of travel risk are also discussed.

2. Literature Review

2.1 Senior Travel Market

Many seniors in this generation enjoy better health, more time and greater disposal income (Moal-Ulvoas and Taylor 2014; Sangpikul 2008), and they are more willing to travel. The number of seniors is due to rise in the context of world population’s growth and aging (Moal-Ulvoas and Taylor 2014). In US senior market, the number of persons 65 or over is expected to grow to 83.7 million in 2050 (Foster 2016). In China, the estimated number of persons aged 60 and above has reached 12.3% in 2013 and continue to grow to 31% in 2050 (Le Serre, Legohérel and Weber 2013). The population of senior is also growing in Taiwan, and is expected to grow to from 9.24% in 2003 to 29.8% in 2050 (Chen and Wu 2005). This potential growing market becomes significantly for travel marketers.
2.2 Perceived Risk

Perceived risk is defined as the uncertainty or a loss consumers aware about the product purchase (Dowling and Staelin 1994). Based on the characteristic of intangibility, travel products or services are perceived as more risky (Moisescu and Bertrea 2013), thus consumers normally pay more attentions while making travel decisions. Many scholars regard perceived risks as multi dimensions (Jacoby and Kaplan 1972; Tan 2002; Moisescu and Bertrea 2013; Khalid and Rahman 2015) that are related to the financial, physical, functional, psychological and social risks. This study operationalizes perceived risk as a negative impact a senior traveler aware about the travel services and also employs several dimensions from Reichel, Fuchs and Uriely (2009) to discuss.

2.3 Destination Image

Destination image is defined as the impressions of a place that are derived from individual’s visualization, feelings or thoughts (Milman and Pizam 1995; Tasci and Gartner 2007). The image a person has about a place could be formed from various sources, such as his or her existing knowledge, external information sources or actual travel experiences (Kasim and Alfandi 2014). Destination image is also recognized as an important element to affect tourists’ decisions (Lee 2009). The more positive a destination image possesses, the better destination quality the tourists perceive (Avram and Ratiu 2014).

2.4 Involvement

Involvement is defined as the degree of interest that a consumer has in a stimulus (Kim and Sung 2009). It simply refers to the attributes linked to certain product relative to customer such as its importance, meanings, strength and value (Saleem, Ali and Ahmad 2012). According to elaboration likelihood model (Petty, Cacioppo and Schumann 1983), consumers adopt a central route under high involvement and a peripheral route under low involvement. Either cognitive or affective involvement can influence consumers’ decision making (Bruyneel, Dewitte, Vohs and Warlop 2006). This study adopts the definition of Kim and Sung (2009) that involvement is the degree of interest that a senior traveler has in a travel destination.

2.5 Hypotheses Development

Perceived risk is regarded as the possible losses or negative consequences stemming from purchasing a product or service, and it has been viewed as a critical barrier for consumption behaviors (Michaelidou and Christodoulides 2011; Ma and Wang 2009). Kozak, Crotts and Law (2007) also indicate that people are likely to change their visit plans subject to the appearance of any potential risk threat in their evoked future destination. Therefore, this study suggests that less senior travelers has the risk perceptions about the travel, they are more willing to visit. Based on above statement, the following hypothesis is developed:

Hypothesis 1: Perceived risk has a negative effect on revisit intention.
The destination image is viewed as an important aspect of behavioral intention among actual and potential tourists. A positive perception about a place is more likely to be selected in travel decision process (Moon, Ko, Connaughton and Lee 2013). In addition, as per the previous description about the intangible nature in travel, people would feel the uncertainties and perceive various risks in travel (Khan, Chelliah and Haron 2016; Sönmez and Graefe 1998). A positive destination image could bring travelers more security and safety linked with the destination. With regard to this argument, when senior travelers evaluate their perceived risk, if they are more influenced by positive destination image, they are likely to have higher level of revisit intention. Based on the statement, the following hypothesis is developed:

**Hypothesis 2:** The level of destination image will moderate the influence of perceived risk toward the travel on revisit intention.

Prior research argues that consumers who are more involved with a product usually seek, use, and give more attention to information about that product while evaluating or making a choice (Sharma 2011; Celsi and Olson 1988). Hu (2012), and Knox and Walker (2003) argue that customer involvement has a positive relationship with customer loyalty. Higher involved customer will behave more confident on the products or services and have higher loyalty. Therefore, this study suggests that involvement would also serve as a moderating role in inhibiting the effect of perceived risk on revisit intention. Based on the above discussion, the following hypothesis is proposed:

**Hypothesis 3:** The level of involvement will moderate the influence of perceived risk toward the travel on revisit intention

### 3. Methodology

Questionnaire surveys were conducted using senior travelers as the sample. Snowballing sampling was conducted. This study follows Hunter-Jones and Blackburn (2007) and defines the age of senior travelers as 55 years or above. Therefore, the criteria of the respondents in this study are over 55 year old and had the travel experience from year 2015 to 2017. Questionnaires were first handed out to the senior travelers we knew, then they helped and forwarded to their friends or acquaintances who were qualified with the conditions of this study. The data collection took place in a period of two and half months including a pilot study. A total of 300 questionnaires were distributed and 290 valid respondents answered their comments on the research variables.

The research based on the literature review (Reichel, Fuchs and Uriely 2009; Hsu, Liu and Lee 2010; Lu and Wu 2015; Kim and Sung 2009) for the appropriateness of the survey items. All items were measured on a seven-point scale. The questionnaire items were pretested with 40 senior travelers. The Cronbach’s $\alpha$ values for all pretested questionnaire items are greater than 0.7. Therefore, the final questionnaire items were remained and put into the final form.
4. Results and Discussion

4.1 Characteristics of Respondents

The characteristics of respondents were investigated. Approximately 54% of the respondents were female; the majority of respondents were married (77.6%), and most of the respondents were aged between 55 and 64 years old (47.2%), followed by 65-74 years old (42.1%). More than 65% of the respondents had an educational background with a senior high school degree or above. Most of them were from northern Taiwan (72.4%). For their travel experience within past two years, most of the respondents have traveled abroad (67.6%), especially to Asian countries (43.4%), followed by European destinations (12.8%).

4.2 Factor Analyses and Reliability Test

Principal component factor analysis and varimax rotated method were used to extract the factors in this study. Based on Hair, Black, Babin & Anderson (2010), the results in Table 1 shows that the value of each variable loading is greater than 0.6. In the reliability analysis, the Cronbach’s coefficient alpha (α) are larger than 0.7 for each dimension.

<table>
<thead>
<tr>
<th>Research Constructs/ Factors</th>
<th>Items</th>
<th>Standardized factor loading</th>
<th>Cronbach’s α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Risk</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Site-related physical risk</td>
<td>4</td>
<td>0.904–0.939</td>
<td>0.941</td>
</tr>
<tr>
<td>Socio-psychological risk</td>
<td>3</td>
<td>0.915–0.933</td>
<td>0.913</td>
</tr>
<tr>
<td>Physical harm risk</td>
<td>3</td>
<td>0.872–0.886</td>
<td>0.853</td>
</tr>
<tr>
<td>Expectation risk</td>
<td>3</td>
<td>0.876–0.932</td>
<td>0.899</td>
</tr>
<tr>
<td>Socio-political risk</td>
<td>3</td>
<td>0.940–0.948</td>
<td>0.940</td>
</tr>
<tr>
<td>Financial risk</td>
<td>3</td>
<td>0.862–0.903</td>
<td>0.893</td>
</tr>
<tr>
<td>Mass risk</td>
<td>2</td>
<td>0.929</td>
<td>0.841</td>
</tr>
<tr>
<td>Revisit Intention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revisit intention</td>
<td>3</td>
<td>0.853–0.921</td>
<td>0.867</td>
</tr>
<tr>
<td>Destination Image</td>
<td></td>
<td></td>
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<tr>
<td>Destination image</td>
<td>6</td>
<td>0.722–0.867</td>
<td>0.893</td>
</tr>
<tr>
<td>Involvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involvement</td>
<td>3</td>
<td>0.832–0.883</td>
<td>0.816</td>
</tr>
</tbody>
</table>

4.3 Hypotheses Testing

4.3.1 The Effects of Perceived Risk on Revisit Intention

The regression analyses results in Table 2 (M8) show that there is a significant negative effect of site-related physical risk (β= -0.132, p=0.024) on revisit intention; a significant negative effect of socio-psychological risk (β= -0.128, p=0.029) on revisit intention; a significant negative effect of expectation risk (β= -0.148, p=0.012) on revisit intention; and a significant negative effect of socio-political risk (β= -0.123, p=0.037) on revisit intention. While senior traveler perceives lower travel risk, the willingness to revisit is higher. Thus H1 is supported. In addition, with regard to the results of multiple regression analyses with all perceived risk factors (M8), it is surprised to know that there is a positive effect of physical harm on revisit intention (β= 0.543, p=0.000).
### Table 2: The regression analyses of the effects of perceived risk on revisit intention

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>M1</th>
<th>M2</th>
<th>M3</th>
<th>M4</th>
<th>M5</th>
<th>M6</th>
<th>M7</th>
<th>M8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site physical</td>
<td>-0.132*</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Socio-psychological</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>Physical harm</td>
<td>0.056</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expectation</td>
<td>-0.148*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socio-political</td>
<td></td>
<td></td>
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<td></td>
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<td>Financial</td>
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<td></td>
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<tr>
<td>Mass</td>
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<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.018</td>
<td>0.016</td>
<td>0.003</td>
<td>0.022</td>
<td>0.015</td>
<td>0.001</td>
<td>0.002</td>
<td>0.126</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.014</td>
<td>0.013</td>
<td>0.000</td>
<td>0.019</td>
<td>0.012</td>
<td>-0.003</td>
<td>-0.002</td>
<td>0.105</td>
</tr>
<tr>
<td>F</td>
<td>5.132</td>
<td>4.823</td>
<td>0.900</td>
<td>6.454</td>
<td>4.409</td>
<td>0.152</td>
<td>0.546</td>
<td>5.834</td>
</tr>
<tr>
<td>D-W</td>
<td>1.456</td>
<td>1.508</td>
<td>1.417</td>
<td>1.498</td>
<td>1.470</td>
<td>1.436</td>
<td>1.441</td>
<td>1.610</td>
</tr>
<tr>
<td>VIF</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>2.868-5.589</td>
</tr>
</tbody>
</table>

* ≤ 0.05; ** ≤ 0.01; *** ≤ 0.001

#### 4.3.2 The Moderating Effects on the Influences of Perceived Risk on Revisit Intention

The results show in Figure 1 that destination image moderates the influences of financial risk ($\Delta R^2 = 0.029$, $\Delta F = 11.648$, $\beta = -0.207$, $p=0.001$) and mass risk ($\Delta R^2 = 0.011$, $\Delta F = 4.402$, $\beta = -0.128$, $p=0.037$) on revisit intention. However, destination image’s moderating role is not significant on the influences of site-related physical risk ($\beta = -0.059$, $p=0.320$), socio-psychological risk ($\beta = -0.016$, $p=0.794$), physical harm risk ($\beta = -0.007$, $p=0.899$), expectation risk ($\beta = -0.073$, $p=0.235$) and socio-political risk ($\beta = -0.055$, $p=0.380$) on revisit intention. Thus, H2 is partial supported.

![Fig. 1: The moderating roles of destination image and involvement in this study](image-url)
Moreover, involvement moderates the influence of site-related physical risk ($\Delta R^2= 0.037$, $\Delta F= 11.759$, $\beta= -0.200$, $p=0.001$) on revisit intention (see Figure 1). Nevertheless, involvement’s moderating role is not significant on the influences of socio-psychological risk ($\beta= -0.020$, $p=0.733$), physical harm risk ($\beta= -0.097$, $p=0.111$), expectation risk ($\beta= -0.078$, $p=0.197$), socio-political risk ($\beta= -0.052$, $p=0.386$), financial risk ($\beta= -0.064$, $p=0.291$) and mass risk ($\beta= -0.065$, $p=0.290$) on revisit intention. H3 is partial supported.

5. Conclusions and Recommendations

5.1 Conclusions

Several conclusions were made based on the results of studies. Firstly, we learned from this study that expectation risk perception and socio-political risk perception can impact senior traveler’s revisit intention; however, physical harm risk perception can increase their revisit intention. Based on the results of the study, they are in line with Bertea and Zait (2013) and Chiu, Wang, Fang and Huang (2014) that a negative effect of perceived risk on behavioral intention exists. In addition, it is interesting to know that physical harm risk has a positive effect on senior traveler’s revisit intention. This study suggests that even senior travelers get older, once they want to go travel, the physical harm or physical weakness is not a critical issue for seniors to worry.

Secondly, the moderating role of destination image is significant on the influences of financial risk and mass risk on revisit intention in this study. Destination image mitigates the impacts of financial risk and mass risk on senior traveler’s revisit intention. The results are congruent with previous work (Khan, Chelliah and Haron 2016; Sönmez and Graefe 1998) that travelers perceive many various risks in travel, and a positive destination image could bring travelers more security and safety linked with the destination.

Thirdly, the moderating role of involvement is significant on the influence of site-related physical risk on revisit intention in this study, too. Senior’s highly involvement can inhibit the impact of site-related physical risk on revisit intention. This study also agrees with Knox and Walker (2003) that customer involvement has a positive relationship with customer loyalty. Higher involved customer will behave more confident on the products or services and have higher loyalty.

5.2 Research Suggestions

Several implications can be drawn from the above conclusions. Firstly, we learn from this study that expectation risk perception and socio-political risk perception can impact senior traveler’s revisit intention; however, physical harm risk perception can increase their revisit intention. The issues of safety in the countries they are going to visit and the services whether meet their expectations are important considerations for seniors. Practitioners should arrange the services with good quality, and chooses the safe scenic spots and activities while designing...
the tour products for seniors. In addition, the results show that greater physical harm risk perception leads to higher revisit intention. Although the physical conditions of seniors are not well as young people are, they still wish to see more and travel around while their health conditions allow them to do so. Practitioners could develop some travel products that are easy to be accomplished for seniors.

Secondly, the moderating role of destination image is significant on the influences of financial risk and mass risk on revisit intention. In addition, the moderating role of involvement is significant on the influence of site-related physical risk on revisit intention in this study. Based on these results, senior travelers have greater image toward the places and are highly involved with the travel services can help them reduce some risks in travel in order to encourage them to travel again in the future. Therefore, practitioners could provide more occasions or tools, such as travel presentations or travel guide books to share the knowledge with seniors in order to make them feel confident on the places they are going to visit and form the positive image about the places. Once they learn more about the places, they will reduce their uncertainties and relieve their anxieties.

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