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The Effects of Travelers' Price Sensitivity on Information Search Behaviors

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Abstract: In a remarkably heterogeneous tourism market, marketers apply a wide range of strategies which help them ward off competitors and attract customers. The openness of travel information such as product and service quality and price is essential but still a challenge for marketers since traveler characteristics are often multi-dimensional. This study devotes special attention to travelers' price sensitivity, and aims to investigate whether price sensitivity can segment travelers and the effects on information search behavior. For this purpose, the research study conducted Analysis of Variance (ANOVA) and regression analysis using survey data of 310 respondents. The results confirm the existence of heterogeneity in price sensitivity and there is a clear difference in the use of information by travelers resulting from this variable. Marketers should therefore utilize different communication strategies for travelers with different price sensitivities. For example, to obtain price-sensitive travelers it is more efficient to provide travel information with a clear difference in price between products and services that will reduce their search efforts. On the other hand, to target price-insensitive travelers, marketers should provide sufficient information about product attributes through online personal information sources including organizations such as Trip Advisor, Twitter, Facebook, and Instagram.

Keywords: travelers' price sensitivity; travel information search; smart tourism; travel expenditures; travel activities

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1. Introduction

Price is mentioned as one of the three most important factors in the purchasing process, along with product description and branding [1,2]. This seems to be the case in the tourism industry. Travelers who want to save money and discover attractions recognize the growing importance of price deals, last-minute discounts, and price comparisons [3,4]. Further, significant dispersion exists in the price of tourism products and services in a remarkably heterogeneous tourism market. Price dispersion refers to "the existence of a non-degenerated distribution of prices by the sellers of a product service with similar features" [5]. Price dispersion occurs because a firm's price discrimination strategies seek to maximize profit and this is widely observed in practice. For example, one airline can focus on price-sensitive passengers who purchase seats in advance for low prices, then offer high-price seats to those who are inflexible with their trips. Empirical studies also have found evidence of price dispersion in travel products. For example, Borenstein and Rose [6] noted that the likely difference in airline fares paid by two randomly selected travelers on a US airline is approximately 37%. Clemson et al. [7] found that OTAs offer tickets with substantially different prices. Dispersed fare increases are associated with more competition in the tourism market. The price variations for identical products or services lead travelers to search for information to understand how much they can save. With the rise of the Internet and mobile shopping, travelers tend to be more inclined to undertake

an online search for better prices and thus their price sensitivity is increased along with their personal involvement [8,9].

Travelers use information about tourist destinations to aid in their choice of which ones to visit as well as to save on travel costs. However, travelers in the modern economy often fail to choose the best price deal, which contributes to positive markups for sellers and an increase in the number of competing sellers [10]. Further, Grubb [10] reasoned that consumers rarely perform information searches because they underestimate their returns. This parallels Stigler's [11] earlier study, which concluded that less-informed consumers pay more by considering price while ignoring other potential product differences. Thus, consumers pay higher prices for products to avoid the costs of information searches, as outlined by Ehrlich and Fisher [12]. On the other hand, the advent of information technology (IT) has enabled easy access to product information and reduced search costs. Moreover, the ready availability of information on electronic devices allows consumers to purchase products and acquire information about prices and products with less effort than when using traditional sources [13].

Alternatively, too much information will likely lead to poor choices. The development of new information and communication technologies has led to information overload, and an overabundance of irrelevant information conveys many negative effects in processing such information, such as omission of evidence, difficulties in evaluation and differentiation, and delayed decisions [14]. A large amount of information requires consumers to separate the valuable parts from the rest (information pollution). Otherwise, consumers may make decisions with false information. As Malhotra [15] indicated, information search is especially beneficial when the price dispersion is perceived as large. Consumers do not always pay less as they originally intended because even subtle differences in how information is presented can significantly influence on their consumption. Most of all, we may be overlooking the fact that some consumers search for information on high-priced products or services. At this point, it is questionable whether an optimal information search strategy exists at the price-sensitive level.

Thus, a heightened need exists to understand how consumers employ information from different sources in the travel environment, in which consumers can be confronted by vast amounts of information. It is critical for marketers to understand price sensitivity, especially those who have developed effective targeting instead of mass promotions to increase profits. More attention should also be given to the particular information sources that price-sensitive consumers use to identify marketing avenues with the biggest effect on their sales. This paper aims to define price-sensitive segments for travelers and clarify their use of information sources. Subsequently, marketers can consider this information in developing their pricing strategies to offer consumers optimum price promotions without lowering rates for those willing to pay full price.

2. Theoretical Background

2.1. Price-Sensitive Travelers

Travelers have become increasingly price sensitive due to three revolutionary changes in the travel industry: the flourishing of low-cost travel options, the price transparency brought by the Internet, and the intense competition resulting from deregulated travel distribution [16]. Price sensitivity is the degree to which a product's consumption patterns change as prices change; its importance in pricing has been asserted because it is crucial in determining the best markets for tourism organizations. For example, according to a Google Traveler Study (2014), 63% of leisure travelers are price sensitive when booking hotels. Nevertheless, Nicolau [17] provides evidence that travelers with low sensitivity to prices do not necessarily spend less money. Masiero and Nicolau [18] focused on price-sensitive travelers to identify patterns of tourists with different degrees of price sensitivity. They concluded that price is a determinant of tourist activities at destinations, and their different responses to price permit the use of price sensitivity as a segmentation criterion.

Based on rational choice theory, individuals are rational choosers who can identify all alternatives, compare all attributes for each choice, and select one so as to maximize their utility [19]. "Utility maximization" is a term used to describe the consumer's efforts to obtain the greatest degree of value when making a purchase decision (Ireland, 2008). Further, Pyo et al. [20] highlighted the challenge of examining utility maximization in the tourism context, in that a tourist maximizes his or her utility under budget constraints. The findings suggest that among tourism products—including such varied goods and services as transportation, lodging, food service, and entertainment/recreation—transportation is the most price sensitive, while food service is the least price sensitive. Martinez-Garcia and Raya's [21] empirical study of the duration model demonstrated that tourist demand is the result of a conditional utility maximization, and tourists spend proportionately less on transportation but more on shopping. Ultimately, it is important to identify price-sensitive products to develop effective price strategies, as discounting price strategies do not increase visitor consumption of low-price-sensitive products [22].

Nevertheless, identifying patterns of travelers with different price sensitivities would help travel marketers in designing appropriate product bundles [18]. Typically, passengers on any flight may pay significantly varying fares; some may respond to special offers and price promotions, while others have inelastic demand and are consequently willing to pay higher prices. A price-insensitive passenger, such as a business traveler, may be willing to pay more to obtain a preferred flight and convenient time, but this does not mean that he or she would prefer to pay a higher price. As Yu [23] observed, most passengers search for discount fares, and the lower the fare, the more successful the consumer feels. Modern travelers have learnt that because substantial price differences exist for the same or similar products, they do not have to pay full price if they effectively use the price information that is available.

Previous consumer research has suggested that lowering the search costs for quality information reduces consumer price sensitivity by creating broader perceptions that meet the need for an information search [24,25]. The different uses of information allow travelers with heterogeneous price preferences to choose travel products that match these preferences. In conclusion, the role of price sensitivity in the purchasing process necessitates the joint modeling of information searches, as the desire to spend less and purchase more is the driving force for external information search [26]. This issue also further emphasizes the importance of cognitive information-processing mechanisms.

2.2. Information Search Behaviors

Information search behaviors can be defined as the activities including both active and passive information seeking to gain deeper knowledge about products and services using different types of information sources and channels [27]. Hwang et al. [28] categorized the notion of tourists' information searches into five dimensions: who is searching, why someone is searching, what is sought, when it is sought, and how it is sought. Travelers' information needs account for the "why" in a tourist information search. Further, Wilson's [29] model of information behavior suggested the following:

Information-seeking behavior arises as a consequence of a need perceived by an information user, who, in order to satisfy that need, makes demands upon formal or informal information sources or services, which result in success or failure to find relevant information. If successful, the individual then makes use of the information found and may either fully or partially satisfy the perceived need or, indeed, fail to satisfy the need and have to reiterate the search process.

Hu et al. [30] address the tourist's need for an online information search and presented five categories of motivations: planning, transactional, experiential, entertaining, and recreational. These authors also discovered that the need for an information search determines the types of information content required from the search patterns of tourists. Specifically, tourists that need to plan travel will pursue information on transportation, accommodations, destinations, and attractions, while tourists who seek transactional experiences will

search for information on local specialties, travel souvenirs, and travel activities. This goal-directed information search can occur in various information environments: online, offline, or a combination of these. The desired outcome from a travel information search will also influence how travelers choose their information sources [31]. Further, Vogt and Fesenmaier [32] examined travelers' use of multiple information sources, as well as why they used certain sources. They observed that how much information travelers search for is determined by the search's perceived benefits relative to its cost. In their effort to discover how travelers utilize information sources to achieve their search goals, Fodness and Murray [33] discovered that over half of their survey respondents used only one or two information sources. However, the number of information sources travelers use significantly increases as the length of stay, number of attractions, and number of destinations increases, and if increased travel costs were likely to be faced.

2.3. Price-Sensitive Travelers and Information Search Behaviors

The previous literature on price-sensitive consumers has addressed two facts regarding information. First, more price-sensitive consumers expend greater efforts in their information searches than those who are less price sensitive [34]. According to van Raaij [35], tourists who plan trips involving significant travel costs will extensively search for information. A traveler will certainly aim to save as much money as possible when searching for price information about products or services [36]. Second, price-sensitive travelers must search multiple information channels to find the best deals [37]. Generally, the more information that is available and used, the more efficient or better the outcome of a decision [38]. However, consumers may be unaware of the amount of information available [39] even though finite limits exist in the amount of information consumers can comprehend without becoming overloaded [38].

A smart consumer information search would lead to a screening of the vast array of products available and allow the consumer to make more beneficial product choices. Specifically, a smart information search would reveal close alternatives with lower prices and better quality. Finally, four research hypotheses can be suggested based on previous research. First, travelers are segmented through price sensitivity. Second, price-sensitive travelers participate in more activities at lower prices than those who are less price-sensitive. Third, more price-sensitive travelers make greater efforts in their information searches than those who are less price-sensitive. Fourth, price-sensitive travelers use more information sources to find the best deals than those who are less price-sensitive.

3. Materials and Methods

3.1. Research Instrument

In this study, the association between price sensitivity and information search behavior in the tourism industry is interpreted by considering South Korea's Jeju Island as a travel destination. This is because the island is South Korea's most popular tourist destination and provides diverse tourist activities. The questionnaire developed for this research has five sections. Section One contains three questions to measure price sensitivity using a five-item Likert scale, ranging from one ("strongly disagree") to five ("strongly agree"), as follows: (1) "Even if a trip to Jeju Island is expensive, I will visit Jeju Island"; (2) "If Jeju Island is truly a wonderful destination, I would travel there even if it were expensive"; and (3) "I do not care if a trip to Jeju Island is even more expensive than traveling to other tourist destinations." The scales were generated by Goldsmith and Newell [40] and modified by the authors to fit the tourism industry. The average degree of price sensitivity represents the average score of these items. As the higher the average score the lower the price sensitivity, this study reverse-coded the average score to indicate the latter. Thus, the price sensitivity variable used in this analysis reflects travelers' price sensitivity.

The second section relates to expenses for transportation, accommodations, food and beverages, entrance fees to tourist attractions, tourism activities, shopping, and other expenses. A survey on travel expenses was required to determine how much the respondents

would spend on each category if one million won (approximately US$1000) were provided for a trip to Jeju Island.

The third section measures the intention to participate in a set of 19 travel activities when traveling to the destination using a five-item Likert scale: shopping at tourist destinations; visiting the beach or water; hunting or fishing; visiting museums; taking a boat trip; riding bikes; hiking; visiting restaurants; participating in festivals and events; exploring natural landscapes; visiting historical sites; playing casino games; playing golf; visiting friends or relatives; viewing performances; horseback riding; visiting entertainment spots, such as night clubs; experiencing urban culture; and other activities.

The fourth section concerns the intention to use a set of 19 travel information sources to research five categories of information: offline personal information sources, online personal information sources, media sources, destination-specific websites, and online general information sources. To measure the degree of information searched, respondents were asked to indicate whether they would use an information source using a five-item Likert scale, ranging from one ("strongly disagree") to five ("strongly agree") for the 19 items. Personal information searches are categorized as either offline personal or online information searches. The offline personal information search consists of: (1) firsthand conversations with family members or acquaintances; (2) visits to travel agencies or telephone calls with staff; and (3) telephone calls with employees of airlines, hotels, or restaurants, among others. The online personal information search consists of: (1) the online community, such as Internet cafes and blogs; (2) Twitter; (3) Facebook; and (4) Instagram.

The non-personal information search is characterized as involving social media, including Internet searches. First, the media-based, non-personal information search consists of: (1) travel booklets or offline newspapers or magazines; (2) television programs, (3) YouTube, and (4) television home shopping. The Internet-based, non-personal information search consists of: (1) websites of airlines, hotels, or restaurants; (2) Jeju-area websites, such as Gajajeju.com (accessed on 3 January 2022); and (3) local government agency websites, such as that of the Tourism Corporation. Online non-personal information searches consist of: (1) portal sites, such as Naver, Daum, or Google; (2) reservation websites, such as Interpark or Trivago; (3) travel-related mobile applications; (4) online travel agencies, such as Hana Tour or Mode Tour; and (5) online newspaper articles, magazines, or travel brochures. The average scores from these categories represent the average degree of information searched.

In Section Five, respondents were asked to state their demographic characteristics, such as gender, age, marital status, education, occupation, and monthly household income.

3.2. Data Collection

The data employed in this study were collected from members recruited by an Internet panel company in South Korea from 7 April to 13 April 2020. Online questionnaires were distributed to 1200 individuals using mobile platforms optimized for Apple and Android OS, of which 317 participated in the survey. Seven of the returned questionnaires had incomplete information; therefore, 310 questionnaires were finally used.

4. Results

4.1. Traveler Characteristics Based on Price Sensitivity

Table 1 displays the travelers' characteristics, with similar female (49.7%) and male respondents (50.3%). The respondents' largest age group was between 20 and 29 years old (32.6%), followed by the groups who were less than 20 years old (30.3%) and between 30 and 39 years old (24.2%). Hence, respondents less than 40 years old constituted more than 80% of the sample. The largest income category among the respondents was less than three million won per month (39.4%), where 1000 won equals one US dollar approximately, followed by between 3 and 5 million won (34.5%). The largest education category among the respondents is the university level, and most of the respondents had never visited Jeju Island (39.4%) or had only visited once (38.7%).

Table 1. Traveler characteristics based on price sensitivity.

Profiles	Price Sensitivity			
	Sensitive (*n* = 81)	**Neutral (*n* = 138)**	**Insensitive (*n* = 91)**	**Total (*n* = 310)**
Gender				
Female	61.7%	44.2%	47.2%	49.7%
Male	38.3%	55.8%	52.8%	50.3%
Age				
<20	33.4%	28.2%	30.7%	30.3%
20–29	33.3%	31.9%	33.0%	32.6%
30–39	21.0%	27.5%	22.0%	24.2%
40–49	11.1%	8.0%	13.2%	10.3%
50+	1.2%	4.4%	1.1%	2.6%
Monthly Income				
<3 million	51.9%	37.7%	30.8%	39.4%
3–5 million	33.3%	36.2%	33.0%	34.5%
5 million+	14.8%	26.1%	36.2%	26.1%
Education				
<High school	17.3%	18.1%	14.3%	16.8%
College	14.8%	15.2%	13.2%	14.5%
University	59.3%	53.6%	60.4%	57.1%
Over University	8.6%	13.1%	12.1%	11.6%
Visit Experience				
0	63.0%	34.1%	26.4%	39.4%
1	29.6%	45.6%	36.2%	38.7%
1+	7.4%	20.3%	37.4%	21.9%

Travelers were categorized by price sensitivity using a reverse-coded average score of the three items. Price-insensitive travelers are categorized as travelers who scored less than 2.5; price-neutral travelers were scored between 2.5 and 3.5; and price-sensitive travelers scored greater than 3.5. Of all respondents, 26% (n = 81) were categorized as price-sensitive, 45% (n = 138) as price-neutral, and 29% (n = 91) as price-insensitive. Female travelers and travelers younger than their 30 s were relatively price sensitive. Travelers with a monthly income of less than three million won were found to be more price sensitive, while travelers with a monthly income of more than five million won were more price insensitive than the other groups. Travelers with a higher educational level were more price insensitive than other groups. Further, travelers who never visited the destination were relatively price sensitive, but travelers who visited more than once were relatively price insensitive.

4.2. Comparisons of the Travel Expenditures and Activities among Price-Sensitivity Segments

The price-sensitive, price-neutral, and price-insensitive travelers were then compared by applying Analysis of Variance (ANOVA) of mean scores for the travel expenditures per day, total number of activities, and the average degree of information searched for. Table 2 illustrates the results. Generally, price-insensitive travelers have higher expenditures, number of activities, and information searches. The univariate p-value indicates a significant level of group differences in mean scores using ANOVA test. Travel expenditures per day significantly differed among the three groups of price-insensitive, -neutral, and -sensitive travelers (F = 4.46, p = 0.01). Each item—consisting of the respondent's total expenditures per day during trips, such as accommodation, food, sightseeing, entertainment, shopping, and transportation—also significantly differed among the three groups of price-insensitive, price-neutral, and price-sensitive travelers. However, the total number of activities did not significantly differ among the three groups (F = 0.88, p = 0.41). Finally, the

average degree of information search significantly differs among the three groups ($F = 18.48$, $p = 0.00$). The price-insensitive group demonstrates an average higher degree of information search (mean = 3.39) than the price-sensitive (mean = 2.87) and price-neutral groups (mean = 3.11). Further, both personal and non-personal information searches demonstrate similar results. Figure 1 illustrates the results graphically.

Table 2. Multiple comparisons of mean scores based on price sensitivity.

VARIABLES	Price Sensitivity [c]			Univariate [b]	
	Sensitive (n = 81)	Neutral (n = 138)	Insensitive (n = 91)		
	Mean			F	p
Total travel expenditures per day [a]	0.207	0.243	0.311	4.46	0.01
Accommodations per day	0.057	0.062	0.08	2.61	0.08
Food (including eating out) per day	0.05	0.061	0.079	3.34	0.04
Sightseeing per day	0.014	0.019	0.025	3.5	0.03
Entertainment per day	0.015	0.023	0.024	2.09	0.13
Shopping per day	0.018	0.022	0.03	2.32	0.09
Transportation (+ gas fees) per day	0.045	0.048	0.064	3.43	0.03
Others	0.008	0.007	0.008	0.26	0.77
Total number of activities	5.23	5.37	5.73	0.88	0.41
Information search [c]	2.87	3.11	3.39	18.48	0
Personal information search	2.63	2.98	3.3	23.26	0
Non-personal information search	3	3.18	3.44	11.08	0

Notes: [a] The unit of travel expenditures is millions/won (equivalent to thousands/US dollars). [b] The univariate designation indicates a significant level of group differences using ANOVA test. [c] The price sensitivity and information search results were measured on a five-point Likert scale, ranging from one ("strongly disagree") to five ("strongly agree").

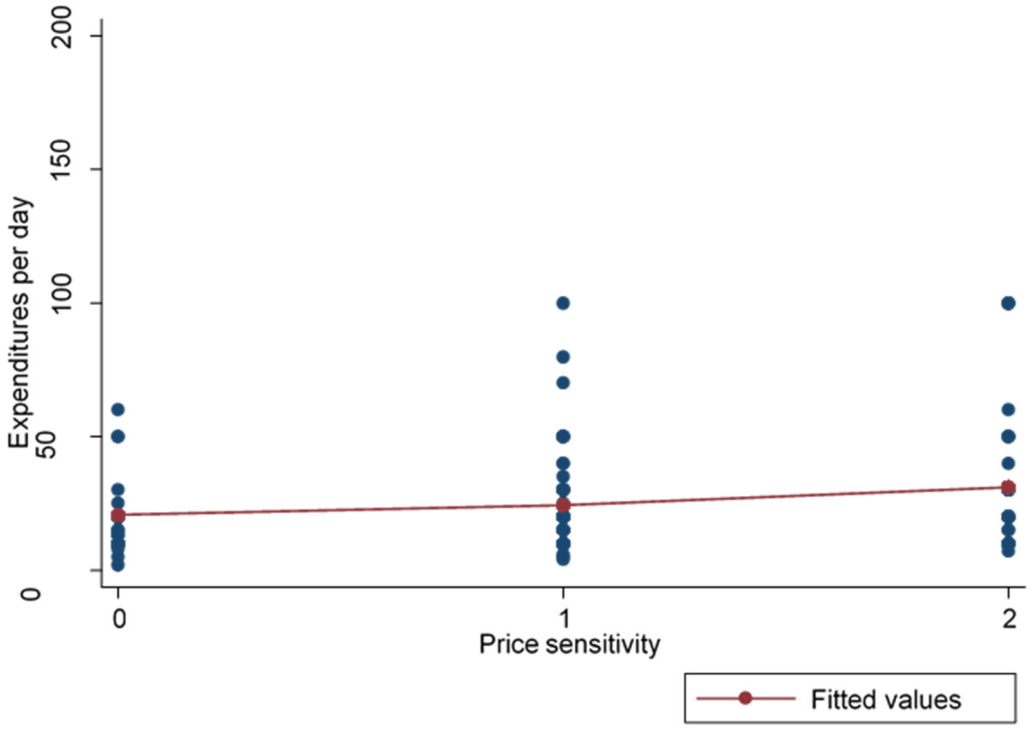

Figure 1. *Cont.*

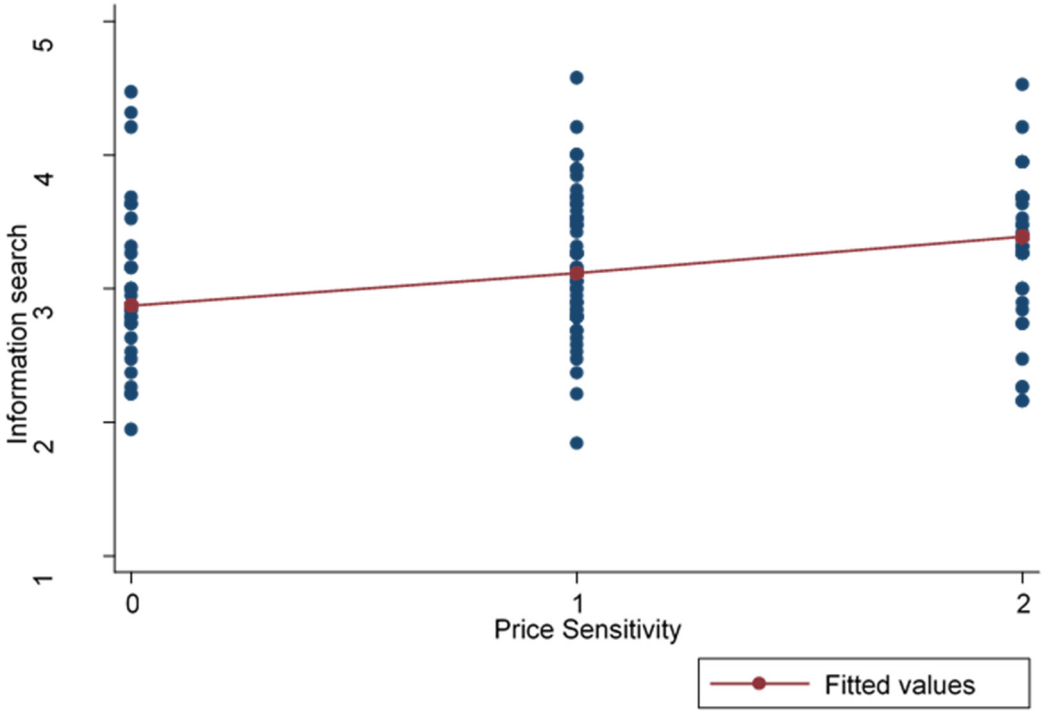

Figure 1. ANOVA Plots.

4.3. The Effects of Price Sensitivity on Travel Expenditures and Activities

Table 3 notes the regression results for the effect of price sensitivity on travel expenditures per day and the pattern of travel activities. The price sensitivity with a coefficient of −4.343 and *t*-value of −2.596 statistically and significantly affected the travel expenditures per day but did not statistically affect the number of travel activities at the 5% significance level (coefficient = −0.008, *t* = −0.042). As price sensitivity also measures price elasticity of demand, the results indicate that the more price sensitive the traveler (or the higher the price elasticity of travel demand), the lower was the expenditure per day and the fewer activities that occurred during travel. Less-educated travelers and those with higher incomes participated in more travel activities. Education's effect on the number of activities was −0.291 (statistically significant at the 1% level); the income effect on the number of activities was 0.190 (statistically significant at the 10% level). All other variables—such as visit experiences, gender, and age did not significantly affect the travel expenditures per day or the number of activities engaged in.

4.4. The Effects of Price Sensitivity on Information Search

In addition to the impact of price sensitivity on travel expenditures per day and the level of travel activities, other effects in relation to information search were examined, as revealed in Table 4. The information search was categorized as either personal or non-personal. The personal use of travel information sources indicates the importance of personally communicated offline and online information sources, while the non-personal use of travel information sources indicates the use of social media, websites, and other online information sources. The offline personal information search includes the search for information obtained from family members or acquaintances; telephone calls to agencies or with staff; and telephone calls with employees of airlines, hotels, or restaurants, among others. The online personal information search includes searches for information obtained from online communities, such as Internet cafes and blogs; Twitter; Facebook; and Instagram. The media non-personal information search includes travel booklets or offline newspapers or magazines, television programs, YouTube, and television home shopping. The Internet non-personal information search includes the websites of airlines, hotels, or restaurants; Jeju-area websites; and local government agency websites. The online

non-personal information search includes portal or reservation websites; travel-related mobile applications; online travel agencies; and online newspaper articles, magazines, or travel brochures.

Table 3. The effects of price sensitivity on travel expenditures and travel activities.

VARIABLES	Daily Expenditures	Number of Activities
Price sensitivity	−4.343 ***	−0.008
	(−2.596)	(−0.042)
Visit experience	1.034	0.048
	(0.872)	(0.375)
Education	0.359	−0.291 ***
	(0.445)	(−3.337)
Income	0.830	0.190 *
	(0.864)	(1.834)
Gender	−3.549	0.283
	(−1.315)	(0.970)
Age	0.435	0.050
	(0.328)	(0.352)
Constant	32.802 ***	5.536 ***
	(3.964)	(6.185)
R-squared	0.05	0.05
F	2.435	2.399

Note: Price sensitivity is measured on a five-point Likert scale, ranging from one ("strongly disagree") to five ("strongly agree"). Categories for gender are coded as zero for male and one for female. *** $p < 0.01$, * $p < 0.1$.

Table 4. The effect of price sensitivity on information search.

	Information Search		
VARIABLES	Total	Personal	Non-Personal
Price sensitivity	−0.248 ***	−0.311 ***	−0.219 ***
	(−6.237)	(−6.802)	(−5.057)
Visit experience	0.037	0.047	0.021
	(1.311)	(1.444)	(0.675)
Education	−0.001	0.003	−0.007
	(−0.071)	(0.144)	(−0.356)
Income	−0.026	−0.031	−0.027
	(−1.121)	(−1.173)	(−1.090)
Gender	−0.029	−0.026	−0.036
	(−0.452)	(−0.355)	(−0.517)
Age	0.010	0.023	0.020
	(0.331)	(0.623)	(0.572)
Constant	3.923 ***	3.913 ***	3.939 ***
	(19.973)	(17.296)	(18.380)
R-squared	0.14	0.16	0.09
F	8.128	9.798	5.055

Note: Price sensitivity and information search results are measured on a five-point Likert scale, ranging from one ("strongly disagree") to five ("strongly agree"). Categories for gender are coded as zero for male and one for female. *** $p < 0.01$.

The results reveal that price sensitivity generally has statistically significant negative effects on information search at the 1% level (coefficient = −0.248, t = −6.237), with a greater effect on personal (coefficient = −0.311) than non-personal information searches (coefficient = −0.219). Thus, the more price-sensitive the consumer is the less they will search for information, and especially that involving personal information.

Table 5 illustrates the impact of price sensitivity on each information source. Price sensitivity is significantly and negatively associated with travel information searches

among all sources, and price-sensitive travelers less aggressively search for information from personal than non-personal channels. In comparison, price sensitivity's effect on the online personal channel was −0.317, and statistically significant at the 1% level, or the highest among information sources. Its effect on offline personal information search was −0.305 ($p < 0.01$), and there were impacts on social media, Internet, and other online non-personal information search patterns of −0.271, −0.247, and −0.139 ($p < 0.01$), respectively. Additionally, the results for respondents' visit experience demonstrated positive effects on online personal information search. The age variable was positively associated with offline personal information search, while negatively with online personal information search.

Table 5. Further analysis on the effect of price sensitivity on information search.

	Information Search				
	Personal		**Non-Personal**		
VARIABLES	**Offline**	**Online**	**Media**	**Web**	**Online**
Price sensitivity	−0.305 ***	−0.317 ***	−0.271 ***	−0.247 ***	−0.139 ***
	(−5.385)	(−5.679)	(−5.460)	(−4.012)	(−2.943)
Visit experience	0.000	0.094 **	0.054	−0.035	0.043
	(0.002)	(2.365)	(1.549)	(−0.800)	(1.272)
Education	0.013	−0.007	0.005	−0.039	0.012
	(0.471)	(−0.243)	(0.202)	(−1.318)	(0.525)
Income	−0.043	−0.019	−0.045	−0.040	0.003
	(−1.312)	(−0.590)	(−1.575)	(−1.127)	(0.126)
Gender	0.028	−0.080	−0.197 **	−0.016	0.105
	(0.302)	(−0.889)	(−2.461)	(−0.161)	(1.369)
Age	0.141 ***	−0.096 **	−0.009	0.072	−0.005
	(3.149)	(−2.177)	(−0.225)	(1.483)	(−0.125)
Constant	3.685 ***	4.141 ***	4.107 ***	4.031 ***	3.677 ***
	(13.143)	(15.002)	(16.738)	(13.230)	(15.707)
R-squared	0.12	0.15	0.12	0.07	0.06
F	7.017	8.904	7.046	3.557	3.087

Note: Price sensitivity is measured on a five-point Likert scale, ranging from one ("strongly disagree") to five ("strongly agree"). Categories for gender are coded as zero for male and one for female. *** $p < 0.01$, ** $p < 0.05$.

5. Discussion

This study focused on the roles of traveler price sensitivity because these consumers have become increasingly price sensitive in this noticeably heterogeneous market. This role is twofold. On the one hand, it is a determinant of daily travel expenditures and the number of tourist activities in which consumers participate. On the other hand, it is a driver of external information search due to the desire to spend less on travel products and services [36]. Consequently, this study investigated three important aspects of price sensitivity and traveling: (1) traveler segments through price sensitivity, (2) price sensitivity's impact on daily travel expenditures and the number of tourist activities in which consumers participate, and (3) the different levels of information search and the use of information sources based on the degree of price sensitivity toward travel products and services.

This study revealed three major findings. First, by examining the level of importance regarding price discounts on travel products and services during trips, we identified three segments: price-insensitive, price-neutral, and price-sensitive groups. This result confirmed that heterogeneity exists in price sensitivity, indicating that this variable is an efficient criterion for the segmentation of travelers. Specifically, we learned that female travelers younger than age 30 were relatively price sensitive. Additionally, price-sensitive travelers typically earn a monthly income of less than three million won and are likely new to Jeju Island, while price-insensitive travelers have a monthly income of more than five million won and a higher educational level, and had experience in visiting the destination.

Second, tests on the impact of price sensitivity on daily travel expenditures and the number of travel activities in which the consumer participated revealed that it significantly affected the former, but not the latter. In other words, the more price sensitive the traveler, the less likely they are to spend. Price-sensitive travelers also spent less than price-insensitive travelers on accommodation, food, including restaurants, entertainment, sightseeing, shopping, and transportation.

Third, an examination of the impact of price sensitivity on information search demonstrated that the price sensitivity variable negatively affects information search overall, and this effect is larger for personal than non-personal search. Thus, the less price sensitive a traveler is, the greater their information search, especially their personal information search. In addition, examination of the impact of price sensitivity on each information source indicated that price sensitivity is significantly and negatively associated with travel information search covering all sources. Price-insensitive travelers more aggressively search using online personal information search, information about communities, such as Internet cafes and blogs, and Twitter, Facebook, and Instagram.

This study's results have several implications for strategic travel marketing. First, the segmentation of travelers according to price sensitivity allows destination managers to identify segments of the market that are willing to pay different prices and market their products and services accordingly. In short, it facilitates the formation of segments with similar price sensitivities. Furthermore, as mentioned by Chang et al. [22], it is important to identify price-sensitive products to develop an effective price strategy, as price discounts do not encourage consumption in price-sensitive travelers. As a result, travel destination marketers could develop package tours with appropriate sets of tourism products and services, which can attract travelers with different dispositions to pay.

Second, the results of this study show that price sensitivity significantly affects daily travel expenditure but not the level of travel activities. Regarding the relationship between price sensitivity, travel expenditures, and the number of travel activities, it is worthwhile to mention a finding by Nicolau [17]. He revealed that travelers who are sensitive to price could end up spending the same amount of money, or more, than insensitive travelers due to the fact they might buy five cheap services that cost more than three expensive services overall. However, in this study, no difference was found in the number of tourism activities among the three groups with different price sensitivity, and price-sensitive travelers were more cost conscious; therefore, they spent less overall. On this account, marketers should attract one big spender who accounts for the largest portion of their profits rather than several small spenders, as suggested by Kotler and Armstrong [41].

Third, compared to existing studies, the present study offers somewhat contradictory findings. For example, Ching et al. [26] argued that tourists conduct extensive information searches to save significant amounts of money when comparing prices, but this study found that travelers who are more price sensitive are less likely to search for travel information. This implies that, price-sensitive travelers rely on decision shortcuts that can reduce search efforts. In other words, price-sensitive travelers are goal-directed information seekers who only seek information on how much they pay for travel goods and services [42]. Thus, marketers need to provide price promotions with a price-friendly format through information sources mainly used by price-sensitive travelers. On the other hand, this study highlights the high demand by price-insensitive travelers for information sources, especially online personal information. Personal information, which is free from commercial influences, allows an in-depth look at both price and non-price factors through an interactive interface [43,44]. Travel information for price-insensitive travelers can be more effective through word-of-mouth communication, which is an important part of online tourist communities. Finally, to maximize profit, marketers should target price-insensitive travelers and provide sufficient information such as travel product or service alternatives, product benefits, features, and qualities through online personal information sources including communities (cafes and blogs), Twitter, Facebook, and Instagram.

Given the fact that very few marketers survive by employing low-cost strategies, the best deal travelers look for does not necessarily equate to the lowest prices [45]. Similarly, Lichtenstein and Bearden [46] provided empirical evidence showing that price response is affected by the form of pricing information. For example, consumers with information on both price and product quality become less sensitive to price than consumers with only price information [25]. Consequently, when travel marketers determine the price of a product or service, they need to consider the fact that the non-price attributes of products can have a stronger effect than price information on price-sensitive travelers as well.

This study also includes some limitations which, in part, are also suggestions and recommendations for future research. Its findings suggest that there is no statistically significant difference in the total number of activities among the three price-sensitive groups, although it was expected that the price-insensitive groups participate in more travel activities than the more price-sensitive groups. This may be interpreted that the survey respondents did not consider more diverse activities because they perceived that tourism activities in the domestic tourist destination were limited. Therefore, it would be useful if the results were supported by further studies conducted on travelers to destinations where more diverse travel activities could be considered. In this study, the amount to be paid was investigated, which may be different from the amount actually paid; hence, it is recommended that future research examine actual expenditures by product type, such as transportation, lodging, and restaurant dining, which would allow a comparison of the impact of price sensitivity on the actual transactions of various types of products and services. Also, in this study, to investigate the effect of price sensitivity on travel information search, we included various travel information, not just price information. However, based on a study by Chiang et al. [36] asserting that tourists who plan trips involving significant travel costs will extensively search for price information because they certainly aim to save as much money as possible. Therefore, it is recommended to conduct a study price information and non-price information separately, which will show more clearly how the price sensitivity of travelers is related to price information search. Lastly, we examined travelers' price sensitivity by focusing on the travel propensities following a price increase. Orosso [47] found that each service has specific acceptance level of price and price sensitivity measurement (PSM) method can be used to provide information about an acceptable price. Future studies can explore travelers' reactions to price decreases by using PSM, which may provide additional insight for tourism marketers.

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