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Do Ambient Conditions (Air Quality, Noise Level and Temperature) and Image Congruity Matter for Boosting Customer Approach Behaviors in the FSC Sector?

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Abstract: The present research presented a conceptual framework by uncovering the apparent role of ambient condition quality (in-flight air, noise level, and temperature), image congruity, love, respect, and perceived ticket price in increasing customer approach behaviors in the full service carrier (FSC) industry. A quantitative method was used. The evaluation of the measurement model verified the quality of construct measures. Findings from statistical analyses demonstrated the significant associations among research variables, and identified the mediating nature of FSC love and FSC respect. In addition, the important moderating effect of perceived FSC ticket price was found. A prominent role of ambient condition quality in eliciting approach behaviors was also explored. Overall, our theoretical framework contained a prediction power for approach behaviors. The research findings thus assist FSC researchers and practitioners to better understand the process of generating the customer decision-making process and behaviors that are positive for full service carriers. This research hence successfully fulfilled its objective to discover the influences of the customer approach behaviors in the full service carrier (FSC) industry.

Keywords: full service carrier (FSC); quality of ambient conditions; image congruity; FSC love; FSC respect; approach behaviors; ticket price

1. Introduction

The COVID-19 pandemic has greatly affected the tourism industry, restricting both domestic and international travels [1]. However, prior to the COVID-19 pandemic, the airline industry has been one of the rapidly expanding sectors of the whole tourism industry [2–4]. For flying travelers domestically and internationally, the airline industry is undoubtedly the main contributor to the advancements of the entire tourism industry over the past few decades [5]. Nonetheless, while the popularity of international/domestic air traveling and its frequency have steadily increased, such rapid expansion of the airline industry has also enhanced the competition in the marketplace [6]. In particular, in the global airline market whose life cycle is a maturity stage, the full service carrier (FSC) sector faced stronger competition than ever [7]. Undeniably, the rising low-cost carrier (LCC) sector for the past few decades has made a far more competitive FSC market environment [3,8]. In the past, the airline

industry lacked differentiated factors for choosing airlines due to the similar levels and form of service, as well as price. However, the emergence of LCC increased customers' options.

The FSC sector now provides various services, such as an in-flight meal service, many air routes, aircrafts that can fly longer distances, and cabin entertainment services, while also charging customers for upscale services. On the other hand, the LCC sector provides limited services at reasonable prices, such as single passenger service, single type of aircraft, simple fare system, limited in-flight service and mileage [9]. In other words, the differences of the LCC sector compared to the FSC sector are reasonable prices, simplified services due to minimized human resources, and options according to customer preferences, providing more diverse criteria for customers to consider in choosing an airline. For FSC companies that have relatively low price competitiveness, engendering patrons' approach behaviors (e.g., re-purchase, word-of-mouth, loyalty, pay extra) is growingly becoming critical to enlarge market share and boost revenue for survival [2,5,8].

It is irrefutable that maximizing customer approach behaviors is an essential requisite of an airline company's successful management [10,11]. Preceding studies for the extant consumer behavior and marketing literature showed that providing a better quality physical environment to customers is one important way of eliciting positive post-consumption decisions/behaviors for the company [12–15]. Tourism researchers also asserted that offering better cognitive and affective experiences to patrons is an essential step to increase patrons' positive behavioral intentions for a product/brand/firm [16–19]. The major dimension of physical environment factors in the aviation context is ambient conditions [14]. Image congruity is considered a crucial cognitive factor [20,21]. In addition, lovemarks comprising product love and respect are regarded as vital constituents of affective factors [19,22].

Although the role of physical environment, cognition, and affect has been extensively researched, relatively little research has particularly focused on FSC product/service experiences and FSC customer behaviors. For example, only a few studies have tried to uncover the difference in perception of FSC and LCC customers [23]. Little research has also made an empirical endeavor to integrate the quality of ambient conditions, image congruity, and lovemarks into one theoretical framework for customer approach behaviors. In addition, despite the criticality of perceived price in customer behavior [5,24–26], the moderating influence of perceived airline ticket price on customer approach behavior generation process in the FSC industry was studied in a scant research. Perceived price is a crucial variable influencing patrons' post-purchase intention formation [5,25], particularly in the airline sector [27]. Uncovering how perceived airline ticket price affects the process of generating customer approach behaviors is undeniably important for FSC pricing strategies.

To reduce the incompleteness, the research developed a theoretical framework comprising ambient condition quality, image congruity, lovemarks, perceived FSC ticket price, and approach behaviors for an FSC, as it is apparent that relationship between these constructs are quite important. The purpose of this study was to determine the relationship between ambient condition quality, image congruity, FSC love and respect, perceived FSC ticket price, and approach behaviors for an FSC (Appendix A). Specifically, the present research attempted (a) to explore the role of the quality of ambient conditions (in-flight air, noise level, and temperature) and image congruity in eliciting lovemarks (FSC love and FSC respect) and approach behaviors, (b) to unearth the mediating effect of lovemarks, (c) to identify the relative effect of study variables, and (d) to reveal the moderating influence of perceived FSC ticket price. The subsequent section is followed with a review of the subsisting literature. The method and result sections are then presented. Lastly, the discussion and implications are provided.

2. Literature Review

2.1. Quality of Ambient Conditions

Physical environment refers to the built environment [12]. Physical environment is interchangeably used with atmospherics. Ambient conditions are the critical facet of physical environment [12]. Ambient conditions in the tourism sector are of great importance as most travelers want/desire to have

comfort and well-being experiences while traveling [13,15]. Ambient conditions of a place/building along with other physical environment factors irrefutably play a key role in boosting comfortable tourism experiences and offering psychological/emotional well-being [6]. Thus, the concept of ambient conditions is often adopted and used when explicating customer decision formation and behaviors in the tourism industry [6,14]. According to [14], ambient conditions are background environmental stimuli, which influence patrons' perceptions, senses, or affective responses. Air conditions (e.g., air freshness, dust-free, fresh odor), noise level, and temperature (e.g., dryness/humidity, hot/cold) are crucial constituents of ambient conditions [12,13].

Researchers in existing studies agreed that ambient conditions are of importance in shaping customer responses and behaviors in a consumption situation [6,13–15]. According to [6], ambient conditions trigger a positive affective evaluation of customer service/product experiences and increase favorable behavioral intentions for a place (e.g., pay intention and revisit intention). Their finding was in line with [14] and the empirical result that ambient conditions are the crucial predictors of cognitive and emotional factors and the important contributors to approach decisions for an airline. Based on this evidence, it would be true that when the quality of ambient conditions is high, customers are more likely to feel positive affect/emotion. Customers will have love for FSC when they get to enjoy the ambient conditions of FSC and they will also respect FSC when they trust and enjoy the reputation of FSC's ambient conditions. The love and respect for FSC is defined as FSC love and FSC respect, respectively. Therefore, the following hypotheses were developed:

Hypothesis 1 (H1). *Quality of ambient conditions is positively related to FSC love.*

Hypothesis 2 (H2). *Quality of ambient conditions is positively related to FSC respect.*

2.2. Image Congruity

As the tourism product has conspicuous characteristics [21], image congruity is undoubtedly regarded as a fundamental concept in the tourism context [7,28]. According to [21], image congruity forms on the basis of a matching process across self-image and product/company image. Major facets of image congruity are identified as social image congruity and ideal social image congruity in many studies in hospitality and tourism [7,29,30]. These two factors are the social layers of image congruity theory [31]. Social image congruity is about an image matching between social self-image and a company image, whereas ideal social image congruity is about an image comparison between ideal social self-image and a company image [32]. Image congruity in this research is the accordance between customer social/ideal social self-image and an image of a specific FSC. For example, when a customer depicts his or her self-image as an environmentally friendly person, that customer is likely to choose an environmentally friendly travel option. Also, when a customer's ideal social self-image is positive and prestigious, that customer is likely to choose an FSC which provides prestigious service.

Tourism researchers agreed on the important role of image congruity in understanding customer behaviors [21,30,31]. The article [21] indicated that image congruity is a significant contributor in generating travelers' positive emotional experiences and eliciting favorable purchase behaviors for a tourism product. In their empirical research, [31] uncovered that image congruity between customer self-image and destination image has a significant influence on emotional solidarity toward other patrons, and this relationship generates satisfactory travel experiences and destination loyalty. Consistently, in their recent research, [7] found that green image congruity between guest self-image and eco-friendly hotel image forms positive feelings and moral obligation to engage in green product choice. For this reason, when image congruity is present, customers are likely to have love and respect for FSC. Appertaining to this, the following hypotheses were developed:

Hypothesis 3 (H3). *Image congruity is positively correlated to FSC love.*

Hypothesis 4 (H4). *Image congruity is positively correlated to FSC respect.*

2.3. Lovemarks

Within the realm of psychology, the concept of love has been mostly explored in relation to human relations [33–37]. Love is described as an affective connection between two different individuals [19]. This variable strengthens interpersonal relationships [19,38]. Considering the importance of firm performance, it may not be desirable to apply the concept of love-to-business relations [39]. However, due to its contribution to business relations, the concept of love is acknowledged by marketing researchers for its research value [19]. The term lovemarks was first mentioned by [40]. It indicates emotional connections and the situation under which a brand or a product reaches loyalty beyond the rational state, through to love and respect. The authors of [17] similarly delineated lovemarks as “super-evolved brands which maximize their connection with consumers by creating strong emotional bonds” (p. 71). The authors of [19] classified lovemarks into love and respect, and identified mystery, sensuality, and intimacy as sub-factors of love and performance, and trust and reputation as those of respect. The essence of lovemarks is that an emotional process comprising love and respect that leads to patrons’ decision making and behaviors [16,19,41].

The emotional variables often contribute more to the customer decision development process for a brand/product than functional cognitive variables [42,43]. The article [22] first introduced lovemarks theory as the customers emotional attachment of a brand or a product. Indeed, in their application of the lovemarks theory, [42] identified the comparative importance of emotional factors over functional/cognitive factors in explicating patrons’ decision formation. It is important for a firm to become lovemarks in the competitive tourism industry [19]. Lovemarks, which bring customers’ positive decision and purchase behaviors for a company [19], can be especially fundamental in the FSC sector. The reason for this can be identified in the characteristics of airline services. Airline services have a complex of multiple attributes (e.g., type of aircraft, passenger seats, cabin space, flight reservation and ticketing, flight schedule, air route, and cabin crew services) [14], and there is no significant difference in the services provided by full service airlines. Given this, FSC customers are likely to seek the affective cues to rely on when making approach decisions for an FSC [6]. In relation to this, the following hypotheses were developed:

Hypothesis 5 (H5). *The relationship between FSC love and approach behaviors for an FSC is positive.*

Hypothesis 6 (H6). *The relationship between FSC respect and approach behaviors for an FSC is positive.*

2.4. Perceived FSC Ticket Price

Price is frequently utilized by patrons as an effective cue in assessing their experiences with a product/service and its attributes [24–26]. The authors of [26] described price as anything that is paid for to get a particular product/service. According to [25], the objective price of a product/service whose alternative term is actual/real price becomes meaningful to customers only after the customers’ subjective interpretation. Buyers in reality are not likely to remember the actual price of the product/service [25,26]. The objective price is more likely to be calculated by the buyers during the formation of price perception [24–26]. The use of this perceived price is thus broader than that of objective price in the marketing, consumer behavior, and tourism literature. In the airline sector, perceived price is interchangeably used with perceived airline ticket price as this term refers to the price charged to airline customers for transportation by air flight [5]. Under the extremely competitive airline marketplace, perceived airline ticket price is indisputably a crucial variable in the FSC industry [27,44,45].

Research in the consumer behavior and tourism literature previously offered empirical evidence about the impact of price perception on the process of inducing customer post-purchase intentions/behaviors [25,27,46,47]. The authors of [47] verified the priorities of the determinants of loyalty and switching intention. Their results showed that loyalty is most affected by the switching

cost, whereas antecedents of switching intention is prices. In the airline context, [25] demonstrated the critical moderating role of perceived airline ticket price in generating customer positive behavioral intention formation for an airline company. The article [5] recently unveiled that airline customers' perceived reasonableness of airfare significantly moderated the degree of the influence of corporate social responsibility, service quality, and emotional attachment on word-of-mouth behaviors, implying that perceived airline ticket price moderate customers' love and respect for FSC. Given this evidence, it can be posited that FSC customers' perceived airline ticket price plays a moderating role. Therefore, the following hypotheses were developed:

Hypothesis 7 (H7a). *Perceived FSC ticket price significantly moderates the relationship between quality of ambient conditions and FSC love.*

Hypothesis 7 (H7b). *Perceived FSC ticket price significantly moderates the relationship between quality of ambient conditions and FSC respect.*

Hypothesis 7 (H7c). *Perceived FSC ticket price significantly moderates the relationship between image congruity and FSC love.*

Hypothesis 7 (H7d). *Perceived FSC ticket price significantly moderates the relationship between image congruity and FSC respect.*

2.5. Proposed Model and Its Constituents

Figure 1 presents the proposed model, which contains four predictors of approach behaviors for an FSC (i.e., quality of ambient conditions, image congruity, FSC love, FSC respect). A total of six hypotheses (Hypotheses 1–6) are about linking the associations of these constructs. The model also includes one moderator (i.e., perceived FSC ticket price). Hypotheses 7a–d are about the moderating effect of perceived FSC ticket price.

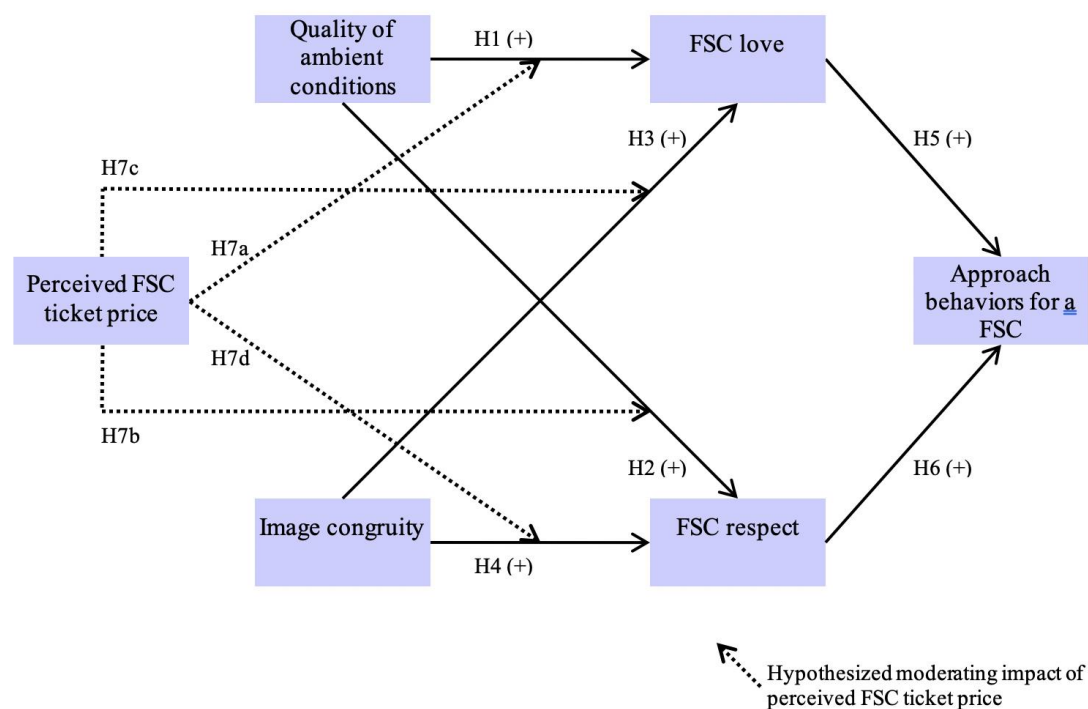


Figure 1. Proposed conceptual framework.

3. Methods

3.1. Measurement Development

The measurement items of the research constructs were borrowed from the preceding studies in consumer behavior and tourism [7,12,14,17,19,20,25,48,49]. For the quality of ambient conditions, air quality, noise level, and temperature adequateness were assessed (e.g., “The air quality during the flight was comfortable”). Research adopted three of the five dimensions of ambient conditions, which affect humans’ five senses [50]. To evaluate image congruity, we utilized two items (e.g., “The typical customer using this FSC has an image similar to how other people see me”). In addition, two items for FSC love (e.g., “I love this FSC”) and two items for FSC respect (e.g., “I respect this FSC”) were used. To measure perceived FSC ticket price, a total of three items were used (e.g., “This FSC is reasonably priced”). Four items were then utilized for the assessment of approach behaviors for an FSC (e.g., “I will make an effort to use this FSC when I travel in the future”). These measures and research descriptions were placed in the early version of the survey questionnaire. The questionnaire was then revised accordingly, referring to the results of a pre-test, with tourism researchers and FSC practitioners. Two tourism academic experts lastly reviewed and refined the survey questions.

3.2. Data Collection and Demographic Profile

For data collection, this research employed an online survey method. The samples were general airline customers in Korea who had travelled by airplane within the last year. The potential participants were chosen randomly using the data based on a Web-based survey company in South Korea. The survey invitation email was sent to those selected potential participants from the web-based survey company. They were asked to click the link contained in the invitation email if their most recent airline experience was within the past year. The participants accessed the survey through the link. A total of 267 cases were obtained for use through this data collection process. These cases were utilized for data analysis.

The participants’ average age was 33.49 years old. Approximately 53.9% of the participants were female customers; and 46.1% were male customers. Regarding the education level, about 68.5% of the respondents indicated that they are college graduates, followed by two year (or junior) college graduates (13.9%), graduate degree holders (12.0%), and high school graduates or less (5.6%). The participants’ air travel frequency in the past one year was asked. About 46.4% indicated 2–3 times, followed by once (39.3%) and 4 times or more (14.3%). In terms of income level, about 46.1% indicated that their monthly income is USD 5000 or less, between 5001 and USD 10,000 (44.2%) and more than USD 10,000 (9.7%).

4. Results

4.1. Confirmatory Factor Analysis

A measurement model was developed from a confirmatory factor analysis (CFA) ($\chi^2 = 210.155$, $df = 88$, $p < 0.001$, $\chi^2/df = 2.388$, $RMSEA = 0.072$, $CFI = 0.966$, $IFI = 0.966$, and $TLI = 0.954$). AMOS 24 and SPSS 24 were utilized as data analysis tools. Table 1 included the details about the CFA results. All research constructs included an acceptable level of composite reliability (quality of ambient conditions = 0.779, image congruity = 0.907, FSC love = 0.895, FSC respect = 0.886, perceived FSC ticket price = 0.917, and approach behaviors for an FSC = 0.908). Hence, the internal consistency of the construct measures was supported. Average variance extracted values were calculated. The values (quality of ambient conditions = 0.542, image congruity = 0.830, FSC love = 0.809, FSC respect = 0.795, perceived FSC ticket price = 0.787, and approach behaviors for an FSC = 0.712) were all above [51], which suggested threshold of 0.50. Therefore, convergent validity was evident. These values were compared to the between-construct correlations (squared) (see Table 1), and the values were greater than the correlations. Therefore, discriminant validity was evident.

Table 1. Confirmatory factor analysis results and correlations.

	(1)	(2)	(3)	(4)	(5)	(6)	β	Mean	SD	CR	AVE
(1) Quality of ambient conditions1	1.000	–	–	–	–	–	0.676	4.404	0.993	0.779	0.542
Quality of ambient conditions2		1.000	–	–	–	–	0.702				
Quality of ambient conditions3			1.000	–	–	–	0.823				
(2) Image congruity1	0.545 ^a	1.000	–	–	–	–	0.941	3.988	1.290	0.907	0.830
Image congruity2	(0.297) ^b		1.000	–	–	–	0.880				
(3) FSC love1	0.598	0.685	1.000	–	–	–	0.880	3.994	1.285	0.895	0.809
FSC love2	(0.357)	(0.469)		1.000	–	–	0.919				
(4) FSC respect1	0.563	0.651	0.823	1.000	–	–	0.880	3.597	1.356	0.886	0.795
FSC respect2	(0.316)	(0.423)	(0.677)		1.000	–	0.903				
(5) Perceived FSC ticket price1	0.388	0.462	0.520	0.528	1.000	–	0.916	4.117	1.182	0.917	0.787
Perceived FSC ticket price2	(0.150)	(0.213)	(0.270)	(0.278)		–	0.932				
Perceived FSC ticket price3						–	0.809				
(6) Approach behaviors for a FSC1	0.657	0.717	0.810	0.716	0.556	1.000	0.803	4.399	1.130	0.908	0.712
Approach behaviors for a FSC2	(0.431)	(0.514)	(0.656)	(0.512)	(0.309)		0.844				
Approach behaviors for a FSC3							0.898				
Approach behaviors for a FSC4							0.827				

Note. Goodness-of-fit statistics for the measurement model: $\chi^2 = 210.155$, $df = 88$, $p < 0.001$, $\chi^2/df = 2.388$, RMSEA = 0.072, CFI = 0.966, IFI = 0.966, and TLI = 0.954. ^a Correlations between the constructs. ^b Squared correlations.

4.2. Structural Equation Modeling

The proposed theoretical model was evaluated with a structural equation modeling (SEM) with the use of maximum likelihood estimation approach. Findings are presented in Figure 2 and Table 2. The assessed model had an acceptable fit to the data ($\chi^2 = 136.336$, $df = 57$, $p < 0.001$, $\chi^2/df = 2.392$, RMSEA = 0.072, CFI = 0.972, IFI = 0.972, and TLI = 0.962). As reported Figure 2 and Table 2, our theoretical framework encompassed the satisfactory level of anticipation power for approach behaviors. Specifically, our model displayed approximately 86.6% of the total variance in customer approach behaviors for an FSC. In addition, the model accounted for 79.2% and 80.1% of the variance in FSC love and FSC respect.

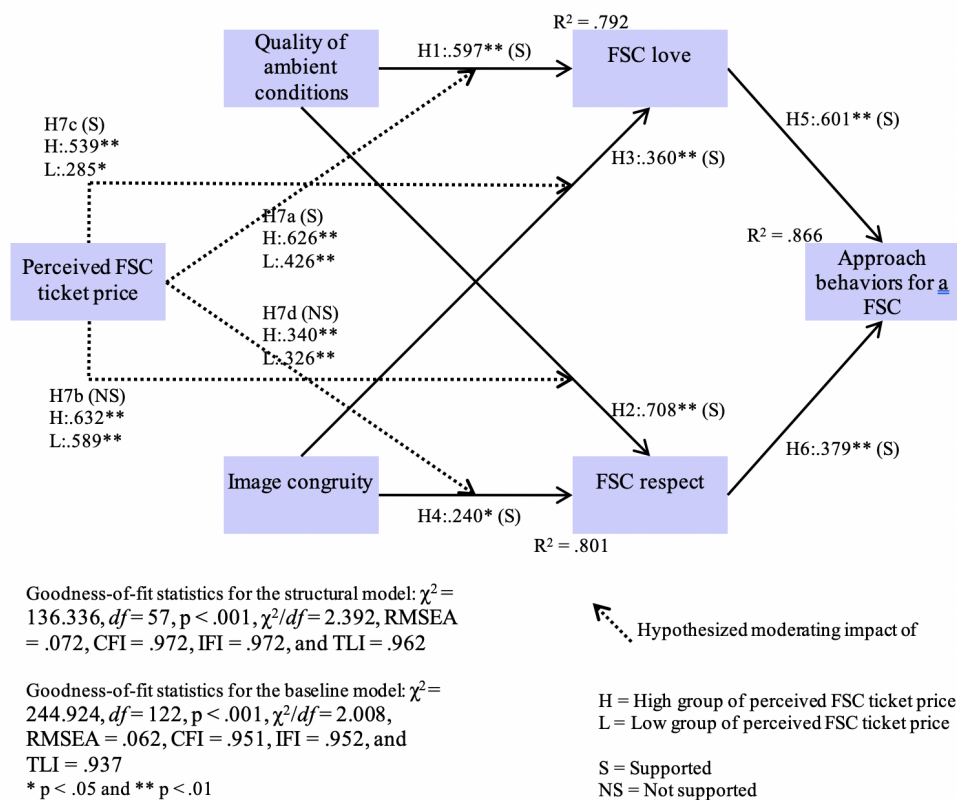
**Figure 2.** Structural model and invariance model estimations.

Table 2. Structural equation modeling results.

		Paths		β	t-Values
H1	Quality of ambient conditions	→	FSC love	0.597	5.136 **
H2	Quality of ambient conditions	→	FSC respect	0.708	5.318 *
H3	Image congruity	→	FSC love	0.360	3.754 **
H4	Image congruity	→	FSC respect	0.240	2.206 *
H5	FSC love	→	Approach behaviors for an FSC	0.601	6.979 *
H6	FSC respect	→	Approach behaviors for an FSC	0.379	4.654 **
Total effect on approach behaviors for FSC		Indirect effect on approach behaviors for FSC:		Total variance explained:	
β quality of ambient conditions = 0.627 **		β quality of ambient conditions = 0.627 **		R^2 (approach behaviors for an FSC) = 0.866	
β image congruity = 0.308 **		β image congruity = 0.308 *		R^2 (FSC love) = 0.792	
β FSC love = 0.601 **				R^2 (FSC respect) = 0.801	
β FSC respect = 0.379 *					

Note. Goodness-of-fit statistics for the structural model: $\chi^2 = 136.336$, $df = 57$, $p < 0.001$, $\chi^2/df = 2.392$, RMSEA = 0.072, CFI = 0.972, IFI = 0.972, and TLI = 0.962. * $p < 0.05$ and ** $p < 0.01$.

The proposed impact of ambient condition quality was tested. Our result show that the quality of ambient conditions had a significant influence on FSC love ($\beta = 0.597$, $p < 0.01$) and FSC respect ($\beta = 0.708$, $p < 0.01$). Hypotheses 1 and 2 were thus supported. The hypothesized influence of image congruity was assessed. The SEM results reveal that image congruity affected FSC love ($\beta = 0.360$, $p < 0.01$) and FSC respect ($\beta = 0.240$, $p < 0.05$). Accordingly, Hypotheses 3 and 4 were supported. The proposed consequences of lovemarks factors was evaluated. Our results show that both FSC love ($\beta = 0.601$, $p < 0.01$) and FSC respect ($\beta = 0.379$, $p < 0.01$) contained a significant influence on customer approach behaviors for an FSC. Therefore, Hypotheses 5 and 6 were supported.

Next, the indirect relationships among study variables were investigated. In order to see the mediating effect of FSC love and respect between the quality of ambient condition and approach behavior, indirect testing was done. As reported in Table 2, ambient condition quality had a meaningful effect on approach behaviors indirectly through FSC love and FSC respect ($\beta = 0.627$, $p < 0.01$). Moreover, image congruity comprised a major indirect influence on approach behaviors ($\beta = 0.308$, $p < 0.01$). According to this result, FSC love and FSC respect's role as mediators is evident within the hypothesized theoretical framework. Subsequently, a total effect of research constructs was examined. As shown in Table 2, the quality of ambient conditions had the greatest total effect on approach behaviors ($\beta = 0.627$, $p < 0.01$), followed by FSC love ($\beta = 0.601$, $p < 0.01$), FSC respect ($\beta = 0.379$, $p < 0.01$), and image congruity ($\beta = 0.308$, $p < 0.01$).

4.3. Metric Invariance Test

A metric invariance test was performed to test the moderating effect of perceived FSC ticket price. Before the examination of moderating effect of perceived FSC ticket price, total responses of 267 cases were split into high and low groups of perceived FSC ticket price. This grouping process was based on a K-means cluster analysis to find a relationship between high and low groups by defining the K-value, which is the middle point of the two groups. The high parties included 167 cases, whereas the low parties included 100 cases.

Then, a baseline model comprising high and low groups of perceived FSC ticket price was developed. As exhibited in Figure 2 and Table 3, the model showed an adequate level of goodness-of-fit statistics ($\chi^2 = 244.924$, $df = 122$, $p < 0.001$, $\chi^2/df = 2.008$, RMSEA = 0.062, CFI = 0.951, IFI = 0.952, and TLI = 0.937). An invariance test was conducted to determine whether measurement structure was variant throughout high and low parties.

A chi-square test was then conducted to uncover the statistical difference between this baseline model and nested models. The nested model showed a restriction of particular path of interest. As shown in Table 3, the relationship between ambient condition quality and FSC love was remarkably

differentiated between high and low groups ($\Delta \chi^2 (1) = 4.027, p < 0.05$). However, the relationship between ambient condition quality and FSC respect was indifferent across two groups ($\Delta \chi^2 (1) = 0.021, p > 0.05$). Therefore, while Hypothesis 7a was supported, Hypothesis 7b was not supported. In addition, our result shows that the association between image congruity and FSC love differed noticeably between high and low groups of perceived FSC ticket price ($\Delta \chi^2 (1) = 4.646, p < 0.05$). Yet, the association between image congruity and FSC respect did not differ significantly across groups ($\Delta \chi^2 (1) = 0.232, p > 0.05$). Hence, Hypothesis 7c was supported even though Hypothesis 7d was not supported.

Table 3. Invariance test results.

Linkages	High Group of Perceived FSC Ticket Price (n = 167)		Low Group of Perceived FSC Ticket Price (n = 100)		Baseline Model (Freely Estimated)	Nested Model (Equally Constrained)
	β	t-Values	β	t-Values		
Q of AC \rightarrow FSC love	0.626	3.994 **	0.426	3.572 **	$\chi^2 (122) = 244.924$	$\chi^2 (123) = 248.951^a$
Q of AC \rightarrow FSC respect	0.632	4.061 *	0.589	4.303 **	$\chi^2 (122) = 244.924$	$\chi^2 (123) = 244.945^b$
IC \rightarrow FSC love	0.539	5.061 **	0.285	2.151 *	$\chi^2 (122) = 244.924$	$\chi^2 (123) = 249.573^c$
IC \rightarrow FSC respect	0.340	2.545 **	0.326	2.836 **	$\chi^2 (122) = 244.924$	$\chi^2 (123) = 245.156^d$

Chi-square difference test: ^a $\Delta \chi^2 (1) = 4.027, p < 0.05$ (H7a: Supported); ^b $\Delta \chi^2 (1) = 0.021, p > 0.05$ (H7b: Not supported); ^c $\Delta \chi^2 (1) = 4.646, p < 0.05$ (H7c: Supported); ^d $\Delta \chi^2 (1) = 0.232, p > 0.05$ (H7d: Not supported). Goodness-of-fit statistics for the baseline model: 244.924, df = 122, $p < 0.001$, $\chi^2/df = 2.008$, RMSEA = 0.062, CFI = 0.951, IFI = 0.952, and TLI = 0.937, * $p < 0.05$ and ** $p < 0.01$.

5. Discussion

Utilizing an empirical approach, this research apparently enriched researchers' and practitioners' comprehension of customer post-purchase behaviors for an FSC product. Specifically, this study clearly explored the impact of ambient condition quality and image congruity, distinctly unearthed the role of lovemarks factors, and clearly identified the effect of perceived FSC ticket price in the FSC industry. In addition, the relative importance of ambient conditions was demonstrated. To the best of our knowledge, this study was one of the very few studies that relates the lovemarks theory to customers' purchase behaviors in the FSC sector and that uncovers the function of the dimensions of lovemarks in explicating their approach to the decision-making process. In addition, this study successfully deepened customers' approach behavior formation by integrating the effect of perceived FSC ticket price. Moreover, this study was one of the rare research papers that focused on and investigated the quality of ambient conditions within the aircraft. Overall, moving one step further, this study successfully built a strong conceptual framework linking ambient condition quality, image congruity, lovemarks (FSC love and FSC respect), and approach behaviors by taking moderating influence of perceived airline ticket price in the FSC industry into account.

The quality of ambient conditions was uncovered as the strongest factor in influencing customer approach behaviors for an FSC. The quality of ambient conditions also significantly triggered FSC love and FSC respect. This finding implies that in-flight atmospherics is the key facet of the FSC customers' approach behavior generation process. Our result supports the previous studies that asserted the importance of physical environment in the aviation sector [6,14]. This finding emphasizes that effectively managing ambient condition factors (air quality, noise level, and temperature) is crucial for inducing positive affective experiences and approach decisions among airline customers. In many consumption situations of hospitality/tourism products, physical environment can be a possible tangible factor. Specifically, from the airline customers' point of view, in-flight physical environment can be a tangible cue to rely on when examining their encounters with the in-flight product performance. The nature of FSC customers often expects a better quality of in-flight ambient conditions. Operators and technicians in the FSC industry should uncover the effective means of enhancing this in-flight atmospheric component. Moreover, practitioners should make diverse endeavors for in-flight air quality enhancement, noise level reduction, and temperature adequateness.

Image congruity has been broadly employed and utilized in the domain of tourism having a conspicuous nature [7,28,31]. The imperative question is then whether image congruity between FSC

customer self-image and an image of a specific FSC company also contains any role in his/her approach behavior generation process in the FSC context. The evidence of this study reveals that this matching concept actively increases FSC love and FSC respect and contributes to inducing positive post purchase behaviors. This result is consistent with [7,31] indication about the importance of image congruity in a tourism product consumption situation. Viewing theoretically, findings of this study encompassed an essential meaning since this study is a rare research that verified the criticality of the links from image congruity to FSC love and FSC respect. From the managerial point of view, FSC operators need to make various efforts to enhance/amend their airline image to be matching with their target patrons for evoking better affective responses and eliciting positive consumption activities for the airline.

FSC love and FSC respect as lovemarks factors were crucial drivers of customer approach behaviors for an FSC. This finding supported the findings of previous marketing and tourism studies (e.g., [16,19,22]). Notwithstanding the criticality of FSC love and FSC respect in consumer behavior, the influence of these variables has been rarely discussed in the FSC industry. Our result enriched the knowledge in the extant airline literature by exploring and evaluating the function of FSC love and FSC respect in soaring customer approach activities for an FSC. For practitioners, dealing with these lovemarks factors is therefore of critical importance to obtain a competitive advantage in the global airline marketplace. Directing their endeavors toward passenger-centered activities (e.g., efforts to contact patrons continually, to comprehend their wants/needs, to create an affective connection, and to fortify the existing relationship) can be a necessary process to build lovemarks between an FSC company and its patrons.

Perceived FSC ticket price was a vital moderator within the proposed theoretical framework. In particular, the influence of ambient condition quality and image congruity on FSC love showed a significant difference amongst high and low groups of perceived FSC ticket price. In addition, the strength of the linkages between ambient condition quality and FSC love (high group: $\beta = 0.626$, $p < 0.01$ vs. low group: $\beta = 0.426$, $p < 0.01$) and between image congruity and FSC love (high group: $\beta = 0.539$, $p < 0.01$ vs. low group: $\beta = 0.285$, $p < 0.01$) was greater in the high group compared to that of the low group. This result implies that, at the comparable level of ambient condition quality and image congruity, customers who perceive the high reasonableness of FSC ticket price are more likely to feel love for an FSC than those customers who feel that the FSC offers an inadequate level of ticket price. This outcome consisted of an important theoretical meaning, as the impact of FSC ticket price on the associations among in-flight ambient condition quality, image congruity, and FSC love has been scarcely unearthed. This research successfully offered evidence that FSC customers' perception about airline ticket price moderates the magnitude of the influence of ambient conditions and image congruity on their purchase behaviors. Our test and results concerning the complicated associations among these study variables contribute to enhancing airline researchers' understanding of customer post-purchase decision-making process for FSC products.

From the practical perspective, FSC operators should create efficient tactics that can help customers perceive the reasonableness of airline ticket price. For instance, an FSC company can provide reasonable prices through their reward programs (e.g., earning miles, upgrading seats, offering free tickets). The most important elements in the transaction between the company and customer are the prices paid by the customer and the service quality offered by the company [27,52]. However, as the importance of the value perceived by customers has increased for all firms, they are also increasing the probability to be chosen by customers by creating differentiated customer value beyond satisfaction through quality. In other words, when customers purchase products or services, they determine their value and make purchase decisions by deciding on a reasonable price through the concept of utility, considering the benefits from their expenditure [53]. Therefore, various airline reward programs may be perceived by customers to provide value for a more reasonable pricing of airfare. This effort to increase the perceived reasonableness of FSC ticket price would ultimately contribute to eliciting stronger relationships among ambient condition quality, image congruity, and FSC love in the formation of approach behaviors.

The results of this study demonstrated the significant indirect effect of FSC love and FSC respect with regards to the proposed conceptual framework. That is, the mediating nature of lovemarks variables is empirically identified in the present research. This result was coherent with previous studies that showed the mediating role of affective constructs (e.g., [5,17,54]). Our results provide airline academics and practitioners important information that if FSC love and FSC respect are present, the influence of ambient condition quality and image congruity on FSC customer approach behaviors is maximized. This means that incorporating these lovemarks variables into the research framework is fundamental to better understand the role of in-flight ambient conditions and image congruity in FSC passenger decision-making process and post-purchase behaviors. Recognizing the mediation mechanism of FSC love and FSC respect within our theoretical model, academics and practitioners in the FSC sector should utilize these affective factors in an active manner.

6. Recommendation

This study had a few limitations. First, this research centered on examining the quality of ambient conditions and its role in the FSC customer approach behavior generation process. However, studies in customer behavior and tourism also indicated the importance of other physical environment factors (e.g., layout, decoration, green design) in the customer decision-making process [55]. Future research should also consider the possible impact of these factors in the FSC sector. Second, image congruity and lovemarks theories were partly integrated into the proposed model. Yet, existing studies also showed that other theories in consumer behavior (e.g., theory of green purchase behaviors) [56] and socio-psychology (e.g., theory of planned behavior) [57,58] are of importance in explicating patrons' approach behaviors. Future research should expand the proposed model by involving the key concepts of such theories for the enhancement of the model comprehensiveness. Moreover, this study generalized results from the samples collected from Korea only, not considering the cultural and geographical context of different people around the world. Taking cultural and geographical context into account may be an interesting topic for future studies, as different people from different backgrounds may have different perceptions to the image congruity.

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Appendix A

Quality of ambient conditions (Bitner, 1992; Han, 2013)

("Strongly disagree" [1] to "Strongly agree" [7])

The air quality during the flight was comfortable (air quality).

The aircraft noise during the flight was not too loud or bothersome (noise level).

The temperature during the flight was comfortable (temperature).

Image congruity (Sirgy et al., 1997)

("Strongly disagree" [1] to "Strongly agree" [7])

The typical customer using this FSC has an image similar to how other people see me.

The typical customer using this FSC has an image similar to how I would like other people to see me.

FSC love (Carroll and Ahuvia, 2006; Song et al., 2019)

("Strongly disagree" [1] to "Strongly agree" [7])

I love this FSC.

This FSC is a pure delight.

FSC respect (Song et al., 2019)

("Strongly disagree" [1] to "Strongly agree" [7])

I respect this FSC.

This FSC is responsible and honest to me.

Perceived FSC ticket price (Oh, 2000; Han et al., 2020)

("Strongly disagree" [1] to "Strongly agree" [7])

This FSC is reasonably priced.

This FSC is a good product for the price.

Overall, this FSC offers an adequate level of ticket price.

Approach behaviors for an FSC (Ajzen and Kruglanski, 2019; Oliver, 2010) ("Strongly disagree" [1] to "Strongly agree" [7])

I will make an effort to use this FSC when I travel in the future.

I will say positive things about this FSC.

I will encourage other people to use this FSC.

I will spend extra in order to use this FSC.

References

- Gössling, S.; Scott, D.; Hall, C.M. Pandemics, tourism and global change: A rapid assessment of COVID-19. *J. Sustain. Tour.* **2020**, *29*, 1–20. [\[CrossRef\]](#)
- Forgas, S.; Moliner, A.M.; Sánchez-García, J.; Palau, R.; Forgas-Coll, S. Antecedents of airline passenger loyalty: Low-cost versus traditional airlines. *J. Air Transp. Manag.* **2010**, *16*, 229–233. [\[CrossRef\]](#)
- Graham, A. Understanding the low cost carrier and airport relationship: A critical analysis of the salient issues. *Tour. Manag.* **2013**, *36*, 66–76. [\[CrossRef\]](#)
- Han, H.; Shim, C.; Lee, W.S.; Kim, W. Product performance and its role in airline image generation and customer retention processes: Gender difference. *J. Travel Tour. Mark.* **2019**, *36*, 536–548. [\[CrossRef\]](#)
- Han, H.; Al-Ansi, A.; Chi, X.; Baek, H.; Lee, K.-S. Impact of Environmental CSR, Service Quality, Emotional Attachment, and Price Perception on Word-of-Mouth for Full-Service Airlines. *Sustainability* **2020**, *12*, 3974. [\[CrossRef\]](#)
- Moon, H.; Yoon, H.J.; Han, H. The effect of airport atmospherics on satisfaction and behavioral intentions: Testing the moderating role of perceived safety. *J. Travel Tour. Mark.* **2016**, *34*, 749–763. [\[CrossRef\]](#)
- Han, H.; Koo, B.; Hyun, S.S. Image congruity as a tool for traveler retention: A comparative analysis on South Korean full-service and low-cost airlines. *J. Travel Tour. Mark.* **2020**, *37*, 347–360. [\[CrossRef\]](#)
- Jung, J.; Han, H.; Oh, M. Travelers' switching behavior in the airline industry from the perspective of the push-pull-mooring framework. *Tour. Manag.* **2017**, *59*, 139–153. [\[CrossRef\]](#)
- Dobruszkes, F. An analysis of European low-cost airlines and their networks. *J. Transp. Geogr.* **2006**, *14*, 249–264. [\[CrossRef\]](#)
- Messner, W. The impact of language proficiency on airline service satisfaction. *J. Travel Tour. Mark.* **2020**, *37*, 169–184. [\[CrossRef\]](#)
- Seo, G.-H.; Itoh, M. Perceptions of Customers as Sustained Competitive Advantages of Global Marketing Airline Alliances: A Hybrid Text Mining Approach. *Sustainability* **2020**, *12*, 6258. [\[CrossRef\]](#)
- Bitner, M.J. Servicescapes: The impact of physical surroundings on customers and employees. *J. Mark.* **1992**, *56*, 57–71. [\[CrossRef\]](#)
- Demoulin, N.; Willems, K. Servicescape irritants and customer satisfaction: The moderating role of shopping motives and involvement. *J. Bus. Res.* **2019**, *104*, 295–306. [\[CrossRef\]](#)
- Han, H. Effects of in-flight ambience and space/function on air travelers' decision to select a low-cost airline. *Tour. Manag.* **2013**, *37*, 125–135. [\[CrossRef\]](#)
- Xu, X.; Gursoy, D. Exploring the relationship between servicescape, place attachment, and intention to recommend accommodations marketed through sharing economy platforms. *J. Travel Tour. Mark.* **2020**, *37*, 429–446. [\[CrossRef\]](#)
- Hudson, S.; Roth, M.S.; Madden, T.J.; Hudson, R. The effects of social media on emotions, brand relationship quality, and word of mouth: An empirical study of music festival attendees. *Tour. Manag.* **2015**, *47*, 68–76. [\[CrossRef\]](#)

17. Oliver, R.L. *Satisfaction: A Behavioral Perspective on the Consumer*, 2nd ed.; Routledge: New York, NY, USA, 2010.
18. Roberts, K. *The Lovemarks Effect: WINNING in the Consumer Revolution*; Powerhouse Books: New York, NY, USA, 2006.
19. Song, H.; Bae, S.Y.; Han, H. Emotional comprehension of a name-brand coffee shop: Focus on lovemarks theory. *Int. J. Contemp. Hosp. Manag.* **2019**, *31*, 1046–1065. [[CrossRef](#)]
20. Sirgy, M.J.; Grewal, D.; Mangleburg, T.F.; Park, J.-O.; Chon, K.-S.; Claiborne, C.B.; Johar, J.S.; Berkman, H. Assessing the Predictive Validity of Two Methods of Measuring Self-Image Congruence. *J. Acad. Mark. Sci.* **1997**, *25*, 229–241. [[CrossRef](#)]
21. Sirgy, M.J. Promoting quality-of-life and well-being research in hospitality and tourism. *J. Travel Tour. Mark.* **2019**, *36*, 1–13. [[CrossRef](#)]
22. Roberts, K. *Lovemarks: The Future beyond Brands*, 2nd ed.; Powerhouse Books: New York, NY, USA, 2005.
23. Koklic, M.K.; Kukar-Kinney, M.; Vegelj, S. An investigation of customer satisfaction with low-cost and full-service airline companies. *J. Bus. Res.* **2017**, *80*, 188–196. [[CrossRef](#)]
24. Mikulić, J.; Prebežac, D. What drives passenger loyalty to traditional and low-cost airlines? A formative partial least squares approach. *J. Air Transp. Manag.* **2011**, *17*, 237–240. [[CrossRef](#)]
25. Oh, H. The Effect of Brand Class, Brand Awareness, and Price on Customer Value and Behavioral Intentions. *J. Hosp. Tour. Res.* **2000**, *24*, 136–162. [[CrossRef](#)]
26. Zeithaml, V.A. Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence. *J. Mark.* **1988**, *52*, 2–22. [[CrossRef](#)]
27. Han, H.; Hwang, J. Quality of physical surroundings and service encounters, airfare, trust and intention during the flight: Age-group difference (young, middle-aged, and mature). *Int. J. Contemp. Hosp. Manag.* **2015**, *27*, 585–607. [[CrossRef](#)]
28. Back, K.J.; Lee, J.-S. Country Club Members' Perceptions of Value, Image Congruence, and Switching Costs: An Exploratory Study of Country Club Members' Loyalty. *J. Hosp. Tour. Res.* **2009**, *33*, 528–546. [[CrossRef](#)]
29. Back, K.-J. The Effects of Image Congruence on Customers' Brand Loyalty in the Upper Middle-Class Hotel Industry. *J. Hosp. Tour. Res.* **2005**, *29*, 448–467. [[CrossRef](#)]
30. Lee, S.; Chua, B.; Kim, H.; Han, H. Shaping and enhancing airport lounge experiences: The application of brand personality and image congruity theories. *Int. J. Contemp. Hosp. Manag.* **2017**, *29*, 2901–2920. [[CrossRef](#)]
31. Joo, D.; Woosnam, K.M.; Lee, S.; Lee, C.-K. Destination loyalty as explained through self-congruity, emotional solidarity, and travel satisfaction. *J. Hosp. Tour. Manag.* **2020**, *45*, 338–347. [[CrossRef](#)]
32. Sirgy, M.J.; Su, C. Destination Image, Self-Congruity, and Travel Behavior: Toward an Integrative Model. *J. Travel Res.* **2000**, *38*, 340–352. [[CrossRef](#)]
33. Berscheid, E. Love in the Fourth Dimension. *Annu. Rev. Psychol.* **2010**, *61*, 1–25. [[CrossRef](#)]
34. Hendrick, C.; Hendrick, S.S. Research on love: Does it measure up? *J. Pers. Soc. Psychol.* **1989**, *56*, 784–794. [[CrossRef](#)]
35. Lemieux, R.; Hale, J.L. Intimacy, passion, and commitment in young romantic relationships: Successfully measuring the triangular theory of love. *Psychol. Rep.* **1999**, *85*, 497–503. [[CrossRef](#)] [[PubMed](#)]
36. Overbeek, G.; Ha, T.; Scholte, R.; De Kemp, R.; Engels, R.C. Brief report: Intimacy, passion, and commitment in romantic relationships—Validation of a 'triangular love scale' for adolescents. *J. Adolesc.* **2007**, *30*, 523–528. [[CrossRef](#)] [[PubMed](#)]
37. Shaver, P.R.; Morgan, H.J.; Wu, S. Is love a 'basic' emotion? *Pers. Relatsh.* **1996**, *3*, 81–96. [[CrossRef](#)]
38. Guerrero, K.K.; Andersen, P.A. Emotions in Close Relationships. In *Close Relationships: A Sourcebook*; Sage: Thousand Oaks, CA, USA, 2000; pp. 171–183.
39. Chen, S.-C.; Quester, P. The relative contribution of love and trust towards customer loyalty. *Australas. Mark. J.* **2015**, *23*, 13–18. [[CrossRef](#)]
40. Roberts, K. *The Leisure Industries*; Palgrave Macmillan: Basingstoke, UK, 2004.
41. Foster, R.J. Commodities, brands, love and kula. *Anthr. Theory* **2008**, *8*, 9–25. [[CrossRef](#)]
42. Pawle, J.; Cooper, P. Measuring Emotion—Lovemarks, The Future Beyond Brands. *J. Advert. Res.* **2006**, *46*, 38–48. [[CrossRef](#)]
43. Sayers, J.G.; Monin, N. Love®: A critical reading of Lovemarks. *J. Organ. Chang. Manag.* **2007**, *20*, 671–684. [[CrossRef](#)]

44. Akamavi, R.K.; Mohamed, E.; Pellmann, K.; Xu, Y. Key determinants of passenger loyalty in the low-cost airline business. *Tour. Manag.* **2015**, *46*, 528–545. [[CrossRef](#)]
45. Jiang, H.; Zhang, Y. An investigation of service quality, customer satisfaction and loyalty in China's airline market. *J. Air Transp. Manag.* **2016**, *57*, 80–88. [[CrossRef](#)]
46. Choi, S.; Mattila, A.S. Perceived Fairness of Price Differences Across Channels: The Moderating Role of Price Frame and Norm Perceptions. *J. Mark. Theory Pr.* **2009**, *17*, 37–48. [[CrossRef](#)]
47. Lee, R.; Murphy, J. From Loyalty to Switching: Exploring the Determinants in the Transition. In Proceedings of the ANZMAC 2005 Conference: Consumer Behaviour, The University of Western Australia, Perth, Australia, 1 January 2005; pp. 196–203.
48. Ajzen, I.; Kruglanski, A.W. Reasoned action in the service of goal pursuit. *Psychol. Rev.* **2019**, *126*, 774–786. [[CrossRef](#)] [[PubMed](#)]
49. Carroll, B.A.; Ahuvia, A.C. Some antecedents and outcomes of brand love. *Mark. Lett.* **2006**, *17*, 79–89. [[CrossRef](#)]
50. Simpeh, K.N.; Simpeh, M.; Abdul-Nasiru, I.; Amponsah-Tawiah, K. Servicescape and Customer Patronage of Three Star Hotels in Ghana's Metropolitan City of Accra. *Eur. J. Bus. Manag.* **2011**, *3*, 119–131.
51. Hair, J.F.; Black, W.C.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis*; Prentice-Hall: Upper Saddle River, NJ, USA, 2010.
52. Lichtenstein, D.R.; Netemeyer, R.G.; Burton, S. Distinguishing coupon proneness from value consciousness: An acquisition-transaction utility theory perspective. *J. Mark.* **1990**, *54*, 54–67. [[CrossRef](#)]
53. Thaler, R.H. Mental Accounting and Consumer Choice. *Mark. Sci.* **2008**, *27*, 15–25. [[CrossRef](#)]
54. Lee, J.; Hsu, L.; Han, H.; Kim, Y. Understanding how consumers view green hotels: How a hotel's green image can influence behavioral intentions. *J. Sustain. Tour.* **2010**, *18*, 901–914. [[CrossRef](#)]
55. Yu, J.; Ariza-Montes, A.; Hernández-Perlines, F.; Vega-Muñoz, A.; Han, H. Hotels' eco-friendly physical environment as nature-based solutions for decreasing burnout and increasing job satisfaction and performance. *Int. J. Environ. Res. Public Health.* **2020**, *17*, 6357. [[CrossRef](#)]
56. Han, H. Theory of green purchase behavior (TGPB): A new theory for green hotel and green restaurant products. *Bus. Strategy Environ.* **2020**, *29*, 2815–2828. [[CrossRef](#)]
57. Manosuthi, N.; Lee, J.-S.; Han, H. Predicting the revisit intention of volunteer tourists using the merged model between the theory of planned behavior and norm activation model. *J. Travel Tour. Mark.* **2020**, *37*, 510–532. [[CrossRef](#)]
58. Meng, B.; Chua, B.-L.; Ryu, H.B.; Han, H. Volunteer tourism (VT) traveler behavior: Merging norm activation model and theory of planned behavior. *J. Sustain. Tour.* **2020**, *28*, 1947–1969. [[CrossRef](#)]

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