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Performance of Retail Stores at Airports and Their Role in Boosting Traveler Satisfaction and Willingness to Repurchase

Heesup Han ¹D, Wei Quan ¹D, Eloy Gil-Cordero ²D, Juan-Pedro Cabrera-Sánchez ²D and Jongsik Yu ^{3,*}D

- College of Hospitality and Tourism Management, Sejong University, Seoul 143747, Korea; heesup.han@gmail.com (H.H.); rj782615@gmail.com (W.Q.)
- ² Business Administration and Marketing Department, Universidad de Sevilla, 41018 Sevilla, Spain; egcordero@us.es (E.G.-C.); jcabrera10@us.es (J.-P.C.-S.)
- Ollege of Business Division of Tourism and Hotel Management, Cheongju University, 298 Daesung-ro, Cheongwon-gu, Cheongju-si 28503, Korea
- * Correspondence: andyjs.yu@gmail.com

Abstract: Despite its criticality for airport business, duty-free shopping at the retail stores of airports has received scant attention. To overcome this difference, this study explains the complex process via which travelers show their willingness to repurchase in the context of airport retail stores. A quantitative process comprising a field survey is conducted for data collection. The measurement quality is assessed and established through the evaluation of a measurement model. As a result of analyzing the structural equation model, it was found that the perceived performance, utilitarian value, hedonic value, and satisfaction evaluation of airport retail stores play a crucial role in determining traveler willingness to repurchase. The conceptual framework encompassing these concepts also adequately accounts for traveler willingness to repurchase. Moreover, our results from the invariance assessment reveal that the moderating impact of shopping engagement on the hypothesized relationship between utilitarian value and satisfaction evaluation is significant. Overall, the proposed direct associations among theoretical constructs within our framework are well supported. Furthermore, the efficacy of the proposed theoretical framework for a clear understanding of airport shoppers' post-purchase behaviors is successfully identified.

Keywords: airport retail stores; shopping engagement; satisfaction evaluation; travelers; perceived performance of airport retail stores

1. Introduction

Shopping is increasingly becoming one of the crucial reasons for travel [1]. Interestingly, customers on vacation exhibit a different approach to shopping from that in daily life [2]. In particular, individuals purchase more nonessential goods and spend additional time and expenses on shopping while traveling, as compared to when they shop for essentials on a daily basis [3,4]. Shopping behaviors while on vacation are likely to be affected by diverse situational factors (e.g., conversations with tour guides, accompanying family/friends/others, and time pressure) [3,5] and attribute/emotional/cognitive factors (e.g., tangibles, physical surroundings, interactions with salespeople, emotional experiences, shopping values, quality products) [6,7]. Such factors influence both planned and unplanned purchases in shopping areas, particularly in shopping/retail stores at airports.

Undeniably, travelers' nonaeronautical commercial activities encompassing duty-free shopping at retail stores [8,9] are becoming essential revenue sources for international airports [7,10,11]. Given this, in recent years, more and more operators at international airports have become aware of the importance of international travelers and their shopping behaviors at airport retail stores [1,7,8,10]. Despite the importance of airport shopping, little research has uncovered the formation of international travelers' post-purchase behaviors at airport duty-free stores. Understanding which factors trigger positive purchase behaviors



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and how the factors interact with each other in building traveler favorable intentions is undoubtedly of importance for the revenue increase and profit generation of airport retail stores, which eventually lead to the nonaeronautical commercial business success of airports.

This study aims to explore how willingness to repurchase develops among travelers at airport retail stores considering the perceived performance, utilitarian value, spiritual value, and satisfaction evaluation of airport retail stores. This research also aimed to unearth how shopping engagement moderates the magnitude of the relationship strength among the utilitarian value, hedonic value, satisfaction evaluation, and willingness to repurchase, and to uncover the intricate mediating role of values and satisfaction evaluation within the proposed theoretical framework. Compared to other forms of tourism/shopping behaviors, traveler shopping at airport retail stores has received relatively scant attention from tourism and consumer behavior researchers. The present research, therefore, provides an apparent theoretical mechanism pertinent to willingness to repurchase when involving the performance of retail stores, values (utilitarian and hedonic), and satisfaction evaluation as its key direct/indirect drivers, and when encompassing shopping engagement as the moderator of its relationships with its proximal determinants. Section 2 presents the review of the literature. Then, the methodology and results are provided. Lastly, a discussion and conclusions of the research are offered.

2. Literature Review

2.1. Perceived Performance of Airport Retail Stores

Perceived performance of a product/service is frequently described as customers' cognitive appraisal or perception of the excellence and superiority of that product/service and its main attributes compared with its competing products/services [12,13]. The results of this study indicate the evaluation and key characteristics of travelers when comparing the benefits of airport retail stores and competing shopping spots (e.g., shopping malls, department stores, and retail stores in tourist sites). The attributes involve diverse aspects of the retail stores. Specifically, tangibles (e.g., interior design, décor, ambience, atmospherics), products (functionality, diversity/availability, product reliability), and staff (friendliness, helpful attitude, knowledge, efficiency) can be the important attributes of retail stores/shopping places [6,14,15]. Consequently, within limited time and space (airport), the more prominent exposure created by the retail store, the position of the retail store within the airport, the overall airport terminal decoration/layout space, and the services offered by the airport stimulate the behavioral intentions of travelers toward airport retail stores as a way to generate positive/negative perceived evaluations [16–19].

The concept of performance is also alternatively used with the term "quality" [12]. Unlike how objective performance/quality mostly entails measures based on the actual performance/quality of product attributes, perceived performance/quality mainly concerns personal responses to such attributes from patrons' perspectives [20]. Thus, perceived performance is a highly subjective concept [21]. Performance/quality in most consumer behavior studies indicates perceived performance/quality [7,21]. Due to its significant role in shoppers' post-purchase decision-making processes, performance and its core attributes are largely believed to be essential constituents of business success in retailing and shopping tourism [6,7,14,22].

2.2. Utilitarian and Hedonic Dimensions of Value

The utilitarian and hedonic value experiences of customers/shopping travelers are widely believed to be vital constituents for explaining their post-purchase behavior [10,23–27]. The utilitarian aspect of value in the shopping context refers to individuals' evaluation of functional gains/advantages and losses/sacrifices while engaging in shopping behaviors [13,25]. Dissimilar to hedonic value dimension, the utilitarian value is task-specific associated with deep thought before making a purchase decision and prior to engaging in an actual purchase [28,29]. The utilitarian value is a cognitive dimension of value and, thus, it is often

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described as an economic value for the money sacrificed to obtain the product and as a judgment of time/effort saving and convenience [10,13,25]. Consistently, Badrinarayanan et al. [23] indicated that the utilitarian aspect of value derives from the cognitive assessment of the benefits received as the compensation of the monetary or nonmonetary costs/sacrifices paid for the attainment of such benefits.

The hedonic aspect of value can be described as patrons' general evaluation of escapism-associated affective/experiential gains/advantages and losses/sacrifices while conducting shopping behaviors [13,25]. According to Babin et al. [30], customers engage in shopping more often for the enjoyment of such hedonic experiences than for the appreciation of task-specific cognitive gains. This hedonic facet of value derives from positive affects/emotions, fun, arousal, and playfulness [23]. Thus, hedonic value is regarded as an affective/emotional dimension of value. The hedonic dimension of value has often been the subject of many prior studies on in-store shopping [10,25,31] and has been recognized as a critical element of shopping tourism [10,26]. The value customers perceive/experience in a consumption situation is considered a critical base for diverse marketing activities [10,13,31]. High value often offers patrons with a sturdy motivation for repeat purchases and ensures a company's successful long-term business [10,24,26,27].

2.3. Satisfaction Evaluation

Satisfaction is crucial to all businesses' success and survival, and it has, thus, long been considered a major concept in consumer behavior, airlines, and tourism [21,24,32–35]. Satisfaction is often described as consumers' assessment of particular products/services concerning if the products/ services have filled their needs/wants and have met their expectations [36–38]. As indicated by this description of satisfaction, the central part of satisfaction includes evaluation/assessment [35]. Accordingly, the terms "satisfaction" and "satisfaction evaluation" are often interchangeably used in the literature. In this research, satisfaction evaluation indicates travelers' assessment regarding whether their shopping experience at the airport duty-free stores was as good as they expected, fulfilling their needs. Satisfaction is a vital factor in influencing customers' post-purchase behavior, generating repeat purchase decisions and many favorable behavioral intentions and behaviors for companies (e.g., recommendations, commitment, visit intensification, and loyalty) [17,32,33].

2.4. Influence of the Perceived Performance of Airport Retail Stores

Individuals' perception of utilitarian and hedonic values is often believed to form on the basis of their appraisals of the product/service and its attributes and performances [6,12,39]. In the hospitality context, Han and Hyun [12] investigated luxury restaurant patrons' behaviors. Their evidence indicated that the performance of the restaurant and its key attributes (e.g., physical environment, service, and product) exerted a positive influence on cognitive and emotional assessment of their overall restaurant experiences. Kesari and Atulkar [39] examined mall shoppers' behaviors and found that shoppers' utilitarian and hedonic values increase as a function of diverse performance/quality attributes of a shopping mall. Consistently, Albayrak et al.'s [6] research of individuals' shopping tourism behaviors and decision-making process demonstrated that the performance of shopping attributes (i.e., tangibles, staff, and products) during their shopping trip are essential drivers of utilitarian and hedonic shopping values, which contribute to building favorable behavioral intentions for shopping tourism. Given this evidence in the extant literature, the following hypotheses were formulated:

Hypothesis (H1): *Perceived performance of airport retail stores is positively related to utilitarian value.*

Hypothesis (H2): *Perceived performance of airport retail stores is positively related to hedonic value.*

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2.5. Influence of Utilitarian and Hedonic Values

It is indisputable that understanding the concept of willingness to repurchase requires a clear comprehension of the concepts of value and satisfaction [24,35,40]. Thus, the relationships between utilitarian value, hedonic value, satisfaction evaluation, and willingness/intention to repurchase have been generally well established in the existing literature on consumer behavior, airlines, and tourism [10,24,39,41,42]. In particular, in examining individuals' airport shopping behaviors, Chung [10] demonstrated the criticality of shopping value. Chung's [10] findings revealed that utilitarian shopping value directly affects shoppers' repeat patronage intention, whereas hedonic value directly influences both anticipated affective reactions and behavioral intention.

In the airline context, Kim [24] attempted to identify the clear role of utilitarian and hedonic values in the formation of passenger repurchase intention. Her empirical result showed that both utilitarian and hedonic values significantly and positively increase passenger satisfaction when forming passenger intention to utilize low-cost carriers. Yet, her finding showed that only hedonic value significantly triggers satisfaction and repurchase intention for full-service carriers. In the restaurant sector, Kim and Han [41] examined patrons' behavioral intention formation. Their evidence revealed that patrons' utilitarian value perception significantly induces a satisfactory evaluation of their dining experience, and that such a satisfactory evaluation significantly elicits patrons' willingness to revisit the restaurant. According to Kesari and Atulkar [39] and Otto and Ritchie [42], interestingly, the hedonic value that reflects the ability of a product/service to arouse emotional states/feelings is often of particular interest and importance in many consumption situations and, as such, value largely influences customers' satisfaction evaluation, which leads to positive behavioral intentions for the specific product/service. Given this evidence in the extant literature, the following hypotheses regarding the associations among utilitarian value, hedonic value, satisfaction evaluation, and willingness to repurchase were developed:

Hypothesis (H3): *Utilitarian value is positively related to satisfaction evaluation.*

Hypothesis (H4): *Hedonic value is positively related to satisfaction evaluation.*

Hypothesis (H5): *Satisfaction evaluation is positively related to willingness to repurchase.*

2.6. Shopping Engagement and its Influence

According to Taheri et al. [43], customer engagement, which can be perceived as customer involvement or flow, is an important concept in tourism, asserting that greater comprehension of customer engagement informs the predictability of the customer intention or behavior. Their research defined engagement as "a state of being involved with and committed to a specific market offering" (p. 322). That is, in their study, the concept of engagement embraced the terms involvement and flow. Individuals' involvement or flow experiences mean total absorption in something or concentration experiences [44]. Likewise, shopping engagement indicates full absorption or involvement experiences in shopping.

However, the emotions generated in a retail store will directly affect customer satisfaction and shopping engagement behaviors due to the influence of the retail environment [45,46]. In addition, Han and Hyun [12] unearthed the influence of the motivational process and satisfaction evaluation process in generating patron loyalty by considering the moderating effect of product involvement. Their evidence showed that the associations between loyalty and its direct predictors were under the significant influence of product involvement, and the relationships were stronger when patrons feel high involvement. Their result was coherent with the indications from previous studies showing that favorable decisions and evaluations tend to more strongly increase when customer in-

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volvement/engagement level is high [43,47]. Theoretical and empirical support for the positive associations among engagement/involvement, cognitive/affective variables, and satisfaction in generating behavioral intention was offered by many past studies in diverse fields [44,48,49]. According to Taheri et al. [43] and Edmonds et al. [50], product engagement/involvement is particularly important in explaining an experiential consumption activity such as shopping. Given this evidence in the extant literature, the following hypotheses were formulated:

Hypothesis (H6a): *Shopping engagement has a significant moderating effect on the utilitarian value and satisfaction evaluation relationship.*

Hypothesis (H6b): Shopping engagement has a significant moderating effect on the hedonic value and satisfaction evaluation relationship.

Hypothesis (H6c): Shopping engagement has a significant moderating effect on the satisfaction evaluation and willingness to repurchase relationship.

3. Methods

3.1. Measurement and Questionnaire Development

To measure the constructs, we adopted existing measures from previous studies [1,10,30,35,39,40,42,43,50]. For the assessment of the perceived performance of airport retail stores, we used four items (e.g., "the duty-free retail stores at this airport allow me to access diverse good-quality products with multiple brands"). For the evaluation of utilitarian value and hedonic value, we utilized three items (e.g., "the duty-free shops at this airport provide a good deal compared to other shopping places") and three items (e.g., "when shopping at the duty-free stores at this airport, I feel excited"), respectively. For the assessment of the satisfaction evaluation, we used three items (e.g., "overall, I am satisfied with my shopping experiences at the duty-free stores of this airport"). Lastly, for the evaluation of shopping engagement and willingness to repurchase, we used three items (e.g., "I feel highly engaged when shopping at the duty-free stores at this airport") and two items (e.g., "I am willing to revisit the duty-free retail stores at this airport to shop when traveling next time"), respectively. The details of the relevant measurement items and the questionnaire are presented in Table 1. The initial survey questionnaire comprising these measurement items was improved on the basis of the results of a pre-test with 11 hospitality and tourism academics whose understanding of our research topic and frequency of airport shopping is high. Face validity of the questionnaire was further increased through the thorough reviews of two academic experts and two industry professionals.

Table 1. Measurement items and questionnaires.

Measurement Items	Source
Perceived performance airport retail stores: PARS1. The performance/functionality of the products purchased from the duty-free retail stores at this airport is excellent. PARS2. The duty-free retail stores at this airport allow me to access diverse good-quality products with multiple brands. PARS3. The duty-free retail stores at this airport have an attractive interior design and décor. PARS4. The staff in the duty-free retail stores at this airport is friendly and helpful.	Han et al., 2014

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Table 1. Cont.

Measurement Items	Source
Utilitarian value: UV1. Overall, the tax-free products purchased at duty-free shops at this airport are worth the price I paid. UV2. The performance of the products I purchase from the duty-free shops at this airport helps me perceive maximum value of time and effort spent on searching them. UV3. The duty-free shops at this airport provide a good deal compared to other shopping places.	Chung, 2015
Hedonic value: HV1. When shopping at the duty-free stores at this airport, I feel pleasant. HV2. When shopping at the duty-free stores at this airport, I feel enjoyable. HV3. When shopping at the duty-free stores at this airport, I feel excited.	Babin et al., 1994; Kesari and Atulkar, 2016
Satisfaction evaluation: SEV1. Overall, I am satisfied with my shopping experiences at the duty-free stores of this airport. SEV2. My decision to shop from the duty-free stores at this airport was a wise one. SEV3. As a whole, I really enjoyed myself while shopping at the duty-free stores at this airport.	Oliver, 2010; Ali et al., 2016
Shopping engagement: SEN1. I feel highly engaged when shopping at the duty-free stores at this airport. SEN2. I was absorbed intensely in shopping at the duty-free stores at this airport. SEN3. When shopping at the duty-free stores at this airport, I had flow experience.	Edmonds et al., 2006; Taheri et al., 2014
Willingness to repurchase: WTR1. I intend to engage in shopping at duty-free retail stores at this airport again when traveling next time. WTR2. I am willing to revisit the duty-free retail stores at this airport to shop when traveling next time.	Konuk, 2019

Note. PARS: perceived performance airport retail stores, UV: utilitarian value, HV: hedonic value, SEV: satisfaction evaluation, SEN: shopping engagement, WTR: willingness to repurchase.

3.2. Data Collection Process and Demographic Profiles

To attain the research objectives, a visitor survey was conducted. Due to the impracticability of obtaining a sampling frame of airport shoppers, the nonprobability convenience-sampling method was used to collect the data. The survey was conducted at the biggest international airport in South Korea. Well-trained surveyors (either employees of an airline company or staff of the airport) distributed the survey questionnaire to potential participants in the rest areas located near the duty-free retail stores of the airport. Participation in the survey was voluntarily. Details regarding the purpose of the research and study description were provided to the potential participants who bought at least one duty-free product at any retail store. A small gift with the airline logo was given to the participants who completed the questionnaire. We obtained a total of 250 complete and usable responses through this data-collection process.

Among 250 respondents, 60% were female shoppers, whereas 40% were male shoppers. The respondents' age fell between 19 years old and 76 years old. The average age was 34.84 years old. An examination of the participants' education level indicated that the majority had a college degree (64.8%), followed by 2 year college graduates (12.8%), graduate-degree holders (12.4%), and high-school graduates or lower (10.0%). Regarding

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the frequency of international travel within the past 5 years, the majority reported that they had traveled 3–4 times (38.8%), followed by >6 times (34.4%), 5–6 times (24.0%), and 1–2 times (2.8%). Among the participants, about 65.6% were pleasure travelers, 19.2% were business travelers, and about 15.2% indicated other reasons. In terms of the item(s) purchased, about 27.2% indicated that they bought cosmetics/perfume, about 18.8% reported clothes/sunglasses/shoes/fashion items, about 18.0% reported alcohol/tobaccorelated products, about 12.0% indicated bags/wallet/purse/belt/leather products, about 10.0% indicated local products/souvenirs, about 6.8% reported watches/jewelry, about 2.8% indicated cameras/electronic produces, and about 4.4% indicated other products (see Table 2).

Table 2. Demographic characteristics of respondents.

Cha	aracteristics	n	%	Characteristics		n	%
Gender	Male	150	60%		Pleasure travelers	164	65.6%
Gender	Female	100	100 40%	Travelers	Business travelers	48	19.2%
	High-school Type		Others	38	15.2%		
Education Level	2 year college graduates	32	12.8%		Cosmetics	68	27.2%
	College degree	162	64.8%		Fashion items	47	18.8%
	Graduate-degree holders	31	12.4%		Alcohol/ tobacco	45	18.0%
-	1–2 times	7	2.8%	Purchase Items	Watches/jewelry	17	6.8%
Frequency	3–4 times	97	38.8%		Electronic products	7	2.8%
1	5–6 times	60	24.0%		Leather products	30	12.0%
	More than 6 times	86	34.4%		Souvenirs	25	10%
	Total	250	100%	-	Others	11	4.4%

4. Results and Findings

4.1. Confirmatory Factor Analysis and Measurement Model

A confirmatory factor analysis (CFA) was run in order to generate the measurement model. Our results revealed that the measurement model encompassing a total of six research constructs included an acceptable level of goodness-of-fit statistics (χ^2 = 254.845, df = 120, p < 0.001, χ^2/df = 2.124, RMSEA = 0.067, CFI = 0.960, IFI = 0.960, TLI = 0.949). The internal consistency using composite reliability calculation was assessed. The results showed that every variable included a value which was higher than Hair et al.'s [51] suggested threshold of 0.700 (see Table 3).

This result implied that multiple items for every latent variable in the present study had adequate levels of internal consistency. Then, the validity test was conducted. Our calculation of the average variance extracted (AVE) value for the constructs showed that all AVE values surpassed Hair et al.'s [51] minimum threshold of 0.500, and, as reported in Table 1, the AVE values were all greater than the between-construct correlations (squared). Accordingly, the discriminant validity of the measures was entirely established.

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	(1)	(2)	(3)	(4)	(5)	(6)	Mean	SD
(1) PARS	1.000	-	_	_	_	_	4.393	0.962
(2) UV	0.478 ^a (0.228) ^b	1.000	-	-	-	-	3.993	1.123
(3) HV	0.629 (0.396)	0.570 (0.325)	1.000	-	-	-	4.281	1.105
(4) SEV	0.642 (0.412)	0.566 (0.320)	0.746 (0.557)	1.000	_	_	4.376	1.171
(5) SEN	-0.134 (0.018)	-0.142 (0.020)	-0.256 (0.066)	-0.111 (0.012)	1.000	_	3.841	1.363
(6) WTR	0.586 (0.343)	0.515 (0.265)	0.760 (0.578)	0.736 (0.542)	0.173 (0.030)	1.000	4.256	1.188
CR	0.855	0.855	0.899	0.893	0.888	0.935	_	_
AVE	0.596	0.663	0.748	0.736	0.726	0.878	_	_

Table 3. Measurement model evaluation.

Note. PARS: perceived performance airport retail stores, UV: utilitarian value, HV: hedonic value, SEV: satisfaction evaluation, SEN: shopping engagement, WTR: willingness to repurchase.CR: composite reliability. Goodness-of-fit statistics for the measurement model: $\chi^2=254.845$, df=120, p<0.001, $\chi^2/df=2.124$, RMSEA = 0.067, CFI = 0.960, IFI = 0.960, TLI = 0.949. ^a Correlations; ^b squared correlations.

4.2. Structural Equation Modeling

A structural equation model (SEM) employing the maximum likelihood estimation method was run to assess the proposed relationships among the research variables and to test the prediction power of the hypothesized theoretical framework. Our results indicated that the structural model included acceptable goodness-of-fit statistics (goodness-of-fit statistics for the structural model: $\chi^2 = 209.984$, df = 85, p < 0.001, $\chi^2/df = 2.470$, RMSEA = 0.077, CFI = 0.956, IFI = 0.956, TLI = 0.946). The model included an adequate level of ability in predicting traveler willingness to repurchase since it accounted for approximately 70.2% of the variance in willingness to repurchase. Details of the SEM results are presented in Table 2 and Figure 1.

The proposed influence of the perceived performance of airport retail stores on utilitarian and hedonic values was evaluated. As reported in Table 2, the SEM results indicate that the perceived performance of airport retail stores had a positive and significant influence on utilitarian value (β = 0.616, p < 0.01) and hedonic value (β = 0.763, p < 0.01). Hence, Hypotheses 1 and 2 were supported. About 38.0% and 58.3% of the utilitarian and hedonic values were accounted for by the perceived performance of airport retail stores, respectively. The hypothesized impact of utilitarian and hedonic values on satisfaction evaluation was assessed, and the SEM results revealed that both utilitarian value (β = 0.208, p < 0.01) and hedonic value (β = 0.779, p < 0.01) exerted a positive and significant effect on satisfaction evaluation. Therefore, Hypotheses 3 and 4 were supported. Approximately 80.2% of satisfaction evaluation was accounted for by both values. The hypothesized link between satisfaction evaluation and willingness to repurchase was evaluated. As expected, the SEM result showed that the path was positive and significant (β = 0.838, p < 0.01). Therefore, Hypothesis 5 was supported.

The indirect and total influence of study variables was then examined. Our SEM result showed that the perceived performance of airport retail stores had a significant effect on satisfaction evaluation indirectly through utilitarian and hedonic values (β = 0.723, p < 0.01). In addition, the SEM result revealed that utilitarian value (β = 0.174, p < 0.01) and hedonic value (β = 0.652, p < 0.01) had a significant influence on willingness to repurchase indirectly through satisfaction evaluation. Moreover, the perceived performance of airport retail stores had a significant indirect effect on willingness to repurchase (β = 0.605, p < 0.01). Overall, this result indicates that utilitarian value, hedonic value, and satisfaction evaluation play a significant mediating role in the proposed model. Subsequently, an examination of the total impact of constructs showed that satisfaction was the most influential construct

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in determining willingness to repurchase (β = 0.838, p < 0.01), followed by hedonic value (β = 0.652, p < 0.01), perceived performance of airport retail stores (β = 0.605, p < 0.01), and utilitarian value (β = 0.174, p < 0.01). Details of the indirect and total effect assessment are reported in Table 4.

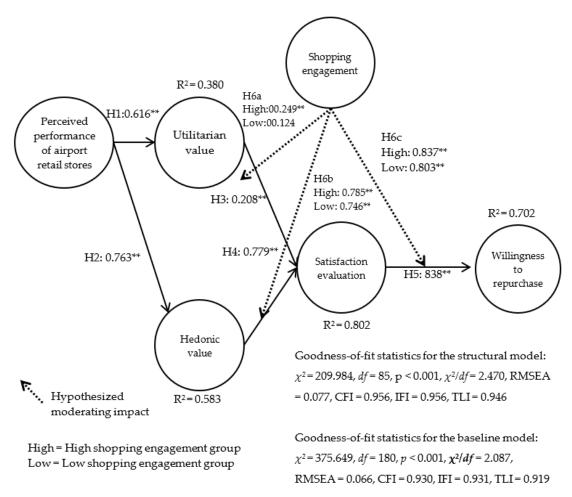


Figure 1. Structural model results and hypothesis testing.

Table 4. Structural model evaluation.

Hypothesized Paths	Coefficients	t-Values	
Hypothesis (H1): Perceived performance–utilitarian value	0.616	8.531 **	
Hypothesis (H2): Perceived performance–hedonic value	0.763	11.080 **	
Hypothesis (H3): <i>Utilitarian value–satisfaction evaluation</i>	0.208	3.834 **	
Hypothesis (H4): <i>Hedonic value–satisfaction evaluation</i>	0.779	12.209 **	
Hypothesis (H5): Satisfaction evaluation—willingness to repurchase	0.838	15.578 **	
Indirect effect on willingness to repurchase:	Total effect on wil	lingness to repurchase:	
$\beta_{\text{Perceived performance}} = 0.605 **$	β Perceived per	rformance = 0.605 **	
β Utilitarian value = 0.174 **	β Satisfaction evaluation = 0.838 **		
$\beta_{\text{Hedonic value}} = 0.652 **$	β Utilitarian value = 0.174 **		
Indirect effect on satisfaction evaluation:	β Hedonic	value = 0.652 **	
β Perceived performance = 0.723 **			

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Table 4. Cont.

Hypothesized Paths	Coefficients	t-Values			
Explained variance:					
R^2 (willingness to repurchase) = 0.702					
R^2 (satisfaction evaluation) = 0.802					
R^2 (utilitarian value) = 0.380					
R^2 (hedo	nic value) = 0.583				

Goodness-of-fit statistics for the structural model: χ^2 = 209.984, df = 85, p < 0.001, χ^2/df = 2.470, RMSEA = 0.077, CFI = 0.956, IFI = 0.956, TLI = 0.946; * p < 0.05, ** p < 0.01.

4.3. Invariance Test and Baseline Model

A test for invariance was performed to evaluate the hypothesized moderating influence of shopping engagement. First, high and low shopping engagement groups were generated using a K-means cluster analysis. A total of 155 responses were clustered into the high shopping engagement group, and 95 responses were clustered into the low shopping engagement group. A baseline model encompassing these high and low groups was then generated. All loadings were equally constrained with the baseline model. Our result showed that this model included adequate goodness-of-fit statistics (goodness-of-fit statistics for the baseline model: $\chi^2 = 375.649$, df = 180, p < 0.001, $\chi^2/df = 2.087$, RMSEA = 0.066, CFI = 0.930, IFI = 0.931, TLI = 0.919). Table 5 and Figure 1 contain details pertinent to the baseline model assessment results.

Table 5. Invariance model evaluation.

	High SEN G	High SEN Group ($n = 155$)		oup $(n = 95)$	Baseline Model (Freely	Nested Model	
Paths	Coefficients	t-Values	Coefficients	t-Values	Estimated)	(Constrained to be Equal)	
Hypothesis (H6a): UV–SEV	0.249	3.807 **	0.124	1.334	χ^2 (180) = 375.649	χ^2 (181) = 377.094 ^a	
Hypothesis (H6b): HV–SEV	0.785	10.528 **	0.746	7.657 **	χ^2 (180) = 375.649	χ^2 (181) = 375.810 ^b	
Hypothesis (H6c): SEV–WTR	0.837	13.181 **	0.803	9.366 **	χ^2 (180) = 375.649	χ^2 (181) = 375.650 °	
Chi-square difference test: ^a $\Delta \chi^2$ (1) = 1.445, $p > 0.05$ ^b $\Delta \chi^2$ (1) = 0.161, $p > 0.05$ ^c $\Delta \chi^2$ (1) = 0.001, $p > 0.05$		Hypothesis (H Hypothesis (H6	es testing: 6a): Supported † b): Not supported c): Not supported	Goodness-of-fit statistics for the baseline model: $\chi^2 = 375.649$, $df = 180$, $p < 0.001$, $\chi^2/df = 2.087$, RMSEA = 0.066, CFI = 0.930, IFI = 0.931, TLI = 0.919 * $p < 0.05$, ** $p < 0.01$			

Note. UV: utilitarian value, HV: hedonic value, SEV: satisfaction evaluation, SEN: shopping engagement, WTR: willingness to repurchase. † While the link for the high shopping engagement group was significant, the path for the low group was not significant. Thus, although chi-square difference between two groups was insignificant, a difference in the link between utilitarian value and satisfaction evaluation exists, supporting Hypothesis 6a.

The generated baseline model for the shopping engagement groups was compared with the nested models, in which a specific path of interest is equally constrained across high and low groups. As shown in Table 5, the result of a chi-square test showed that, while the link for the high shopping engagement group was significant (p < 0.01), the path for the low group was not significant (p > 0.05). Thus, although the chi-square difference between two groups was insignificant (p < 0.05). Thus, although the chi-square difference between utilitarian value and satisfaction evaluation exists, supporting Hypothesis 6a. In addition, the results indicated no significant differences in the hedonic value–satisfaction evaluation link (p < 0.05) and in the satisfaction evaluation–willingness to repurchase link (p < 0.05) and in the satisfaction evaluation–willingness to repurchase link (p < 0.05) between the high and low shopping engagement groups. Therefore, Hypothesis 6b and 6c were not supported.

5. Discussions

Most previous studies were based on a variety of research contexts that revealed the relationship between quality and satisfaction [8,9,13,14,21], whereas the present study considered diverse cognitive and affective processes in addition to these quality/performance

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and satisfaction evaluation processes to explicate travelers' willingness to engage in shopping at airport duty-free stores. In this research, a theoretically significant improvement was made to the extant literature on shopping tourism. The approach of our research provides both theoretically and practically meaningful and valuable insights into research on travelers' decision-making process and behavior in the airport duty-free shopping context. Given its ongoing growth worldwide, airport retail shopping is becoming an important phenomenon in the tourism industry. Keeping pace with such an emerging phenomenon, our research provides an important guiding framework that helps researchers and practitioners to maximize existing/potential customers' positive decisions/willingness for duty-free stores at airports.

The findings of the present research indicated the essential role of the perceived performance of airport retail stores in determining its subsequent constructs within the proposed theoretical model. From the practical aspect, our findings also provided meaningful insights. Our results informed airport retail practitioners that they should vigorously make considerable efforts to enhance the level of diverse attributes of duty-free stores such as attractive physical environments (e.g., comfortable ambient conditions, neatness, cleanliness, comfortable lighting, and layout) and excellent employee/encounter services (e.g., service efficiency, sales staff knowledge of products and their attributes, and effective interaction and communication skills) to be superior to those of other alternative shopping locations (e.g., department stores, city shopping districts, duty-free stores in a city/local destination). Moreover, travelers also place great importance on shared values and social relationships with brands when purchasing products [52], due to the fact that people will give preference to retailers that contribute to the environment or products with organic labels [16]. This also enables to illustrate that the emphasis on sustainability by people has gradually increased [53]. Thus, enhancing the social responsibility of retailers in terms of social sustainability will also increase the perceived evaluation of consumers. In this manner, the retailer's efforts will ultimately help improve the consumer's perception of utilitarian/enjoyment value, satisfactory shopping experience, and repeat purchases. This will improve not only financial performance, but also sustained economical stability or upward mobility.

Our findings from the invariance assessment revealed that the strength of the association between utilitarian value and satisfaction evaluation (high: β = 0.249, p < 0.01 vs. low: β = 0.124, p > 0.05) was not significantly different between the high and low shopping engagement groups. Yet, the path was only significant in the high group, thereby supporting Hypothesis 6a. This result implied that, at a similar level of utilitarian value perception, travelers who feel high shopping engagement are more likely to have satisfactory shopping experiences. That is, travelers' shopping engagement is the factor that fortifies the relationship between utilitarian value and satisfaction evaluation. From the theoretical and practical perspectives, the result of this study can help academics and practitioners in shopping tourism to deepen their comprehension of travelers' shopping behaviors in the context of airport retailing and shopping.

In addition, satisfaction evaluations of travelers play a prominent role in the formation of their willingness to repurchase at airport retail stores. Moreover, satisfaction evaluations are also a key factor with a critical role in consumer behavior and retailing; these findings are consistent with the results of previous studies [11,35]. Moreover, empirical evidence has shown that airport retail store operators should focus on increasing the level of customer satisfaction in order to maximize the positive intentions and behaviors of customers toward the stores. As evidenced in this research, enhancing the performances of retail stores (e.g., improving employee services, enhancing the physical environment of stores, increasing the variety of the products) and offering valuable experiences to customers can contribute to increased satisfaction, which ultimately leads to willingness to repurchase.

The result of the invariance test further informed that the relationship strength between hedonic value and satisfaction evaluation (high: β = 0.785, p < 0.01 vs. low: β = 0.746, p < 0.01) and between satisfaction evaluation and willingness to repurchase (high: β = 0.837,

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p < 0.01 vs. low: $\beta = 0.803$, p < 0.01) was stronger in the high shopping engagement group than in the low engagement group. However, as indicated earlier, the differences in linkages across groups were insignificant (p < 0.05). That is, inconsistent with the proposition of this research, the impact of shopping engagement on the hedonic value–satisfaction evaluation association and the satisfaction evaluation–willingness to repurchase relationship was identified to be insignificant. Our results are, therefore, inconsistent with our hypothesis. This is also in contrast to the results of [45,46], which revealed a strong positive correlation between shopping engagement and satisfaction. Furthermore, it also demonstrated that shopping engagement is not as critical as other possible moderators in the hedonic value–satisfaction evaluation–willingness to repurchase relationships in the airport retailing context.

The findings from the mediating impact analysis revealed that satisfaction evaluation and utilitarian and hedonic values acted as vital mediators in the process of generating willingness to repurchase. In particular, utilitarian and hedonic values mediated the impact of the perceived performance of airport retail stores on satisfaction evaluation. This satisfaction evaluation also significantly mediated the influence of values on willingness to repurchase. In addition, the values and satisfaction evaluation significantly mediated the effect of perceived store performance on willingness to repurchase. This result is in line with existing studies that indicated the mediating role of these constructs. Recognizing the significant mediating nature of values and satisfaction, identifying some endeavors needed for dealing with these constructs efficiently can be one way of taking full advantage of the impact of such mediators' antecedent(s) on traveler post-purchase decisions/behaviors in the airport shopping/retailing context.

6. Conclusions

Airport business is undoubtedly of utmost importance to the development of tourism in the country. Moreover, shopping is a major reason for people to travel. However, duty-free shopping by travelers at airports has received little attention in the existing literature compared to other types of shopping behaviors. This study fills this void. In the present research, a field survey method at an international airport was used in order to attain the research objectives. Moreover, it is worth noting that this study proposes a clear theoretical mechanism for the formation of customers' willingness to repurchase when including the perceived performance of stores, value, and satisfaction as predictors and when involving shopping engagement as a moderating factor. In addition, the results of this study should provide an attractive avenue to the Korean shopping tourism industry via airport duty-free shopping.

Similar to many other studies, this study had several limitations. Firstly, the proposed theoretical framework was tested in the context of airport shopping. Therefore, caution must be taken when generalizing the findings to other types of shopping/retail and tourism sectors. Modifications/extensions are necessary to explicate other types of shopping and tourism behaviors when employing the proposed theoretical framework. Secondly, diverse barriers to shopping at airport stores (e.g., time pressure, impulse buying, product-related risks, unfamiliar shopping environment) exist, which were not considered in the present study. Considering the possible influence of airport shopping barriers could be an interesting extension of our proposed model. Moreover, an important point is that, in most previous studies that explored the relationship between multiple factors of sustainability at airports and the behavioral intentions of travelers, a relationship between the sustainability of retailers and consumers was revealed. However, studies addressing the sustainability of airport retailers remain in the minority. Therefore, this study provides a new direction for future research on the sustainability aspects of airport retailers.

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