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## A Study on the Shopping Behavior of Duty Free Shop Users

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### Abstract

**Purpose** - The ultimate purpose of this research is to analyze the influence of personal disposition on shopping value and behavioral intention by expanding the theory of planned behavior (TPB).

**Research design, data, and methodology** - An attempt was made to examine the effects of personal disposition (reflecting duty-free shop characteristics) on three selective actions of consumers – compulsive buying, variety seeking, and price sensitivity. We conducted a questionnaire survey with the users of airport duty-free shops, downtown duty-free shops (offline), and online duty-free shops. In total, 410 copies of the questionnaire were analyzed using a structural equation model.

**Results** - According to the results, compulsive buying, variety seeking, and price sensitivity significantly affected shopping value. Shopping value and subjective norms both had significant effects on attitude, the major variable in the TPB, and attitude had the greatest effect on behavioral intention, followed by subjective norms and perceived behavioral control in descending order.

**Conclusions** - This study has academic implications in that it extends the existing theories of planned behavior and applies it to consumer characteristics and shopping value. It has practical implications as well in that it provides basic data that can be used to establish concrete marketing strategies for duty-free shop owners targeting segmented markets by closely examining customer desires.

**Keywords:** Duty Free Shopping, Consumer Tendency, Shopping Value, Extended Theory of Planned Behavior.

**JEL Classifications:** L81, L84, M16, Z13, Z31.

### 1. Introduction

In the economic activities of human beings, desire is a physiological phenomenon. Consumption generally refers to the use of goods or services to satisfy certain desires. Eventually, you reach a point where you have to use a credit card to purchase a product you want despite the risks before your anxiety and tension disappear. This phenomenon is also noticeable in duty-free shops, which are the first and last shopping locations for travelers. Unlike ordinary shops, duty-free shops are special in that only international-route travelers can use them to purchase tax-free goods at

reasonable prices within a limited amount of time. This condition is sufficient to induce compulsive buying in duty-free shoppers (Choi, 2017; Crawford & Melewar, 2003; Thomas, 1997). In a duty-free shop with these characteristics, consumers are more likely to upgrade their purchase levels and pursue individualization. Moreover, consumer preferences are changing rapidly (Omar & Kent, 2001). Consumers also tend to tend to make purchases based on reason without focusing to a great extent on price or quality.

To predict the purchasing behavior of consumers, the theory of planned behavior (TPB) has often been employed. This theory provides a good theoretical framework in explaining and predicting socio-psychological determinants. Furthermore, it is also facilitates a good understanding of the major factors related to the continuity of behavior (Hausenblas et al., 1997). However, the TPB pays insufficient attention to the emotional aspects of human beings, making it difficult to explain impulsive human

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behavior (Ra, 2008). Although attempts have been made to ameliorate this shortcoming by adding various psychological factors to the TPB, the search for variables that can complement the internal aspects of human beings is still deemed inadequate (Pavlou & Fygenson, 2006). Also, the TPB has been mostly overlooked in attempts to predict the behavioral intention of airport users who often use duty-free shops. The scale of duty-free shopping in Korea is increasing, and competition between duty-free shops is intensifying. To respond to the changing environment proactively and to increase business revenue, there is a need for duty-free shops to understand the characteristics and purchasing behavior of their customers more concretely. Accordingly, there is a need to expand the existing TPB and derive a model that can better predict the behavioral intention of duty-free shop users. The present study attempts to analyze the characteristics of shopping behavior and the psychological aspects of duty-free shop users. It does this by adding tendency and shopping value variables revealed in the particular dynamics of duty-free shops based on the TPB. Specifically, the ultimate purpose of this research is to analyze the influence of personal disposition on the shopping value and behavioral intention of duty-free shop users. This study contributes to the literature by (a) expanding the TPB in analyzing the behavioral intentions of duty-free shop users in depth, and (b) presenting a concrete model that can be used to better understand the behavioral intention of duty-free shop users by incorporating personal characteristics and shopping value variables that have been overlooked in preceding studies.

## 2. Theoretical Background

### 2.1. Extended Theory of Planned Behavior

Although the TPB is a systematic, effective model in predicting behavior, it fails (a) to explain the process in which the behavioral intention of individuals is activated, and (b) to incorporate motivational content that can induce behavioral intention (Bagozzi & Warshaw, 1992). Hence, Ajzen (1991) stated that there was a need to modify the influence relationship between existing variables to better understand human behavior and to elaborate the prediction theory. For the same reason, the need for multiple explanatory variables has been raised by many scholars to understand the complex explanatory factors in addition to cognitive factors (Kim & Han, 2010; Ravis & Sheeran, 2003; Yoon et al., 2010). Recently, research on the extended TPB has actively been carried out to enhance the explanatory power of the TPB, which is the basis of the behavior prediction model (Middleton & Smith, 2011). To enhance the explanatory power of behavioral intention in preceding studies, such factors as past behavior, satisfaction,

motivation, prior knowledge, attachment, and consumer trends are being used as additional variables (Han & Kim, 2010; Lam & Hsu, 2006; Lin & Chen, 2006; Murray, 1938; Sparks & Pan, 2009; Sui & Baloglu, 2003). Of these variables, consumer trends are a social, economic, and temporal concept of relativity, and individuals are increasingly expressing their identity and social status through consumption (Campbell, 2004; Duesenberry, 1949; Soper, 2007; Yurchisin & Johnson, 2004). To predict the behavioral intention of consumers more concretely, the importance of consumer trends has been emphasized in many preceding studies (Bawa, 1990; Goldsmith et al., 2005; Han et al., 2001; Irani & Hanzae, 2011; Jin & Kim, 2003; Kahn, 1995; Lee et al. 2009; Menon & Kahn, 1995; Steenkamp and Baumgartner, 1995; Van et al., 1996). Based on these studies, in this research, compulsive buying, variety seeking, and price sensitivity, which are the variables that constitute consumer trends, were added to the extension model of the TPB, and utilitarian and hedonic value, which are shopping value variables, were set up as additional explanatory variables of the TPB. This is because actual behavior in the purchase intention decision process is influenced by shopping value (utilitarian and hedonic value), and the shopping value formed before or during shopping influences an individual's cognitive factors (Chung & Koo, 2015). Shopping value is influenced by an individual's value or disposition as well as the culture of the society to which the individual belongs. We have added consumer trend and shopping value to take these variables into consideration because they can function as important factors in explaining the attitude or behavioral intention of individuals. As such, we intend to investigate the structure of consumer tendencies and shopping value in our effort to understand the shopping behavior of duty-free shop users.

### 2.2. Duty-free Shop User Characteristics, Consumer Tendencies, and Shopping Value

A duty-free shop is a shopping space that encourages consumers to purchase products in an extraordinary condition of tax exemption and prompts compulsive buying through the sense of time pressure. In addition, duty-free shop users not only purchase goods for themselves, they also purchase goods for others. They often purchase souvenirs or gifts for family members or friends, usually by purchasing multiple units simultaneously. As a result, duty-free shop users often demand a greater diversity of goods. They are also very sensitive to price and commodity purchases because most visitors are tourists (Ko & Oh, 2001). In other words, duty-free shop users demand diverse and individual products, and they tend to purchase products for their own subjective satisfaction in a consumption pattern that is reasonable in balancing price and quality.

In considering the characteristics of duty-free shops, this

research primarily employs three characteristics of consumer tendency. First, compulsive buying refers to the feeling of psychological pleasure through the act of buying something (Kraepelin, 1909). Faber and O'Guinn (1988; 1992) defined compulsive buying as a part of compulsive consumption, and Valence, d'Astous, and Fortier (1988) defined it as "a very strong impulse to buy something in every consumer group" due to uncontrollable desire. This research defines compulsive buying as repetitive purchasing behavior due to an uncontrollable desire to purchase. A compulsive purchasing tendency refers to the emotional condition of devoting oneself to purchasing in an unstable state (Hirschman, 1992; Rook, 1987). Consumers with compulsive buying tendencies are stimulated by the external environment, and this induces purchasing behavior according to the situation, resulting in a pleasurable experience in a positive mood (Peters & Bodkin, 2007; Standifird et al., 2005; Rook & Gardner, 1993; Weinberg and Gottwald, 1982). Compulsive buying has a significant correlation with actual purchases and monetary attitudes, and this shows that there is also a static correlation with hedonic shopping value (Babin et al., 1994; Roberts and Tanner, 2002; Seo & Huh, 2004).

Variety seeking refers to the tendency of consumers to purchase various flavors or brands of products at the time of purchase, and consumers with this tendency are called diversity seekers (Bawa, 1990; Steenkamp & Baumgartner, 1992; Van Trijp, Hoyer, & Inman, 1996). Hoyer and Ridgway (1984) view variety seeking as the pursuit of new brands or products and define it as an important factor in brand switching or innovative purchasing. The present study defines the variety seeking tendency as the tendency to pursue different stimuli and senses and to pursue diversity in choices with curiosity in a new environment. Lee et al. (2009) reported that the variety seeking tendency in online auctions had a positive effect on utilitarian and hedonic value, and the same result was obtained by Irani and Hanzae (2011). Chang (2002) and Holbrook and Hirschman (1982) found that the variety seeking tendency was related to unintentional and search-purchasing behavior, which could be explained via hedonic consumption. In other words, consumers who seek diversity and excitement enhance shopping efficiency by increasing shopping pleasure and excitement while reducing time and cost (Roehm & Roehm, 2005).

Price sensitivity refers to individual differences in consumer responses to the price of goods and services (Goldsmith & Newell, 1997). This includes the importance of exploring the appropriate price that one can pay and the price relative to other attributes (Shankar et al., 1999). Tellis (1998) suggested that consumer product purchases changed as the prices of products changed. In this research, price sensitivity refers to the degree of sensitization and response to the price and price changes of duty-free goods recognized according to one's own standard. Mano and Elliott (1997) found that buyers experienced utilitarian and

hedonic responses through price reductions. Lee et al. (2009) and Irani and Hanzae (2011) reported that price sensitivity had a negative effect on hedonic value. Price-sensitive consumers generally have high utilitarian value as consumers who reasonably judge and deal with problem solving (Tauber, 1972; Schindler, 1989). Based on these preceding studies, the following hypotheses were derived regarding the effects of the compulsive buying tendency, variety seeking tendency, and price sensitivity on the utilitarian and hedonic value of duty-free shop users.

- <H1> Compulsive buying has a significant influence on hedonic value.
- <H2a> Variety seeking has a significant influence on utilitarian value.
- <H2b> Variety seeking has a significant influence on hedonic value.
- <H3a> Price sensitivity has a significant influence on utilitarian value.
- <H3b> Price sensitivity has a significant influence on hedonic value.

With service industries becoming more active, researchers investigating consumer value priorities are increasingly emphasizing the importance of empirical factors with respect to levels of attitude formation. The present study perceives shopping value acquired in the shopping experience into utilitarian and hedonic value based on the research by Babin et al. (1994). It cannot be said that a consumer's personal shopping value has only one value orientation, utilitarian or hedonic. Accordingly, the present study divides shopping value between utilitarian shopping value and hedonic shopping value prior to measurement. Utilitarian value can be explained as an instrumental and useful dimension to the occurrence of benefits that are obtained by achieving the purpose of shopping. Therefore, in this study, utilitarian value is the result that is obtained in terms of the economy between price and effort. Unlike utilitarian value, hedonic value emphasizes subjective and personal experiences (Hirschman & Holbrook, 1982). It is the result of the sensory action that is generated by the experience of behavioral practice in terms of satisfying emotional desire, and through this experience, it is a collection of positive emotions such as fun and pleasure, excitement, and deviant feelings (Batra & Ahtola, 1990). In the present study, hedonic value can be defined as the benefit of experiencing fun and pleasure in purchasing a product.

Attitude is usually shaped by the value that consumers consider important. Lee (1999) suggested that consumers' past experiences form a favorable attitude toward shopping when utilitarian shopping value is satisfied. The value of hedonic shopping also indirectly affects attitudes by creating temporary positive or negative emotion (Mano & Oliver, 1993; Donovan & Rossiter, 1982). Mathwick et al. (2001) reported that as the satisfaction of economic and utilitarian

shopping value increased, the attitude became more favorable. In addition, the influence on attitude differed according to the type of shopping value (utilitarian or hedonic) and type of store (department or discount) (Ahn & Lee, 2011). Accordingly, the present study derives the following hypotheses.

- <H4> Utilitarian value has a significant influence on attitude.
- <H5> Hedonic value has a significant influence on attitude.

Attitude, a major and basic factor from a socio-psychological viewpoint, is the most influential variable influencing behavioral intention (Wauters et al., 2010). Attitude is not easily changed once it is formed, so it is important to understand the attitude of duty-free shop users (Yoon, 2011). Subjective norms are related to the opinions of the reference group that influences an individual, including family and friends, regarding that individual's specific behavior. It is expressed via social influence or pressure, and the individual's behavior is affected by this environment. It is the motivation of an individual to adapt to his or her belief, and the opinion of others plays an important role in determining one's behavior. Therefore, it is highly likely that a person will attempt specific actions to meet the expectations of those who are close to oneself (Kim & Jo, 2008). In most preceding studies, subjective norms and behavioral intention had directly positive relationships (Chan & Lu, 2004; Eri, 2004, Gopi & Ramayah, 2007). In contrast, Han et al. (2010) presented a result showing that the fit for the model of the TPB increased through an additional path for the influence relationship between subjective norms and attitude among the TPB constructs. This suggested that the relationship between attitude and subjective norms was not independent. The path from the subjective norms to the attitude in the TPB model was added in several empirical studies, and the results confirmed that the path was important and necessary to enhance the explanatory power of the model (Han & Kim, 2010; Ryu & Jang, 2006). Han et al. (2011) and Yoon et al. (2014) emphasized that the

influence of subjective norms on attitude should not be ignored in a study design for the TPB. Based on these preceding studies, we have setup the following hypotheses on attitude and subjective norms.

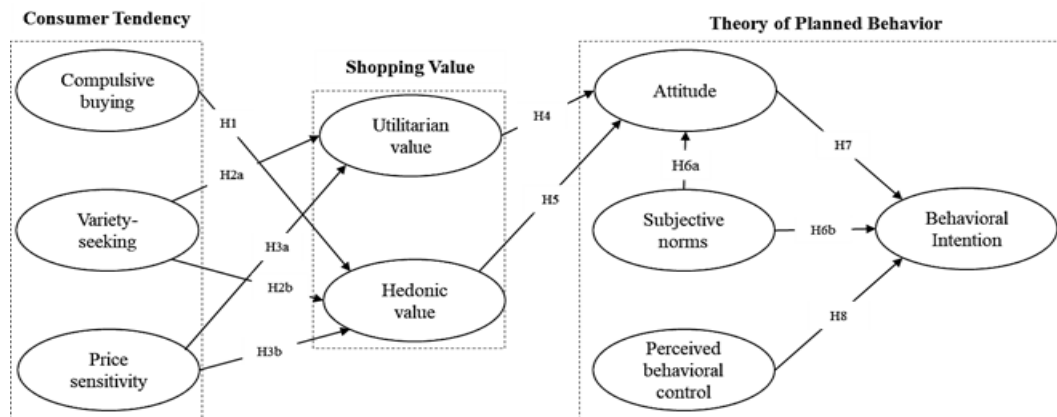
- <H6a> Subjective norms have a significant influence on attitude.
- <H6b> Subjective norms have a significant influence on behavioral intention.
- <H7> Attitude has a significant influence on behavioral intention.

Perceived behavioral control, which refers to the self-confidence or ability resulting from the resources and opportunities that are needed for action, is one of the key determinants of behavioral intention (Ajzen, 1991; Zint, 2002). Perceived behavioral control is an individual's belief regarding the target behavior that is not under one's voluntary control, or on how easy or difficult such a behavior would be. In general, a high perception of control has a positive relationship with an increase in behavioral intention (Ajzen, 2002). Based on these studies, it is believed that if visitors have sufficient resources and opportunities to use duty-free shops, these resources and opportunities may influence the visitors' behavioral intentions. Accordingly, in this research, we have set up the following hypothesis on perceived behavioral control.

- <H8> Perceived behavioral control has a significant influence on behavioral intention.

2.3. Research Model

In this research, we have set up consumer disposition and shopping value, two of the factors that have had an increasing influence on consumer behavior in recent years, as additional factors in the planned behavioral model. Our proposed research model is shown in <Figure 1>.



<Figure 1> Proposed Conceptual Model

### 3. Methodology

The present survey is based on measurement items presented in the preceding studies to reveal the relationship that the consumer disposition of duty-free shop users has on shopping value and behavioral intention. As such, we have selected shoppers who have had experience using a duty-free shop in the past year as research targets. Aside from the demographic characteristics, all items in the questionnaire were answered using a Likert 7-point scale. The measurement variables and measurement items used in this research are shown in <Table 1>.

For this study, we carried out a questionnaire survey with

domestic travelers who used a duty-free shop during the past year. Data collection was conducted offline for about two months from September 1 to November 12 in 2015 at two duty-free shops, one at an airport and the other downtown. In addition, an online survey was conducted by distributing a survey URL to respondents via a Google Docs tool. A total of 442 copies of the questionnaire were collected, and, excluding 32 copies that were either incomplete or contained insincere answers, a total of 410 copies were employed for analysis. The demographic characteristics of the respondents are presented in <Table 2>.

<Table 1> Measurement Items

Construct	Item
Compulsive buying	(CB1) I think I have to buy something in a duty-free shop. (CB2) I buy things even when I don't need anything. (CB3) I have often bought a product that I did not need even when I knew I had very little money left. (CB4) I used a credit card when I knew I didn't have enough money in the bank to cover it.
Variety Seeking	(VS1) I like to experience novelty and change in my daily routine. (VS2) When things get boring, I like to find new and unfamiliar experiences. (VS3) I am curious about products I am not familiar with. (VS4) I like continually changing activities.
Price Sensitivity	(PS1) When I make a purchase in a duty-free shop, the price of the product is the most important factor. (PS2) I try to buy affordable products. (PS3) I would visit several duty-free shops to find lower prices if they had identical products. (PS4) I tend to use the duty-free shop that offers the cheapest prices.
Utilitarian Value	(UV1) Shopping in a duty-free shop is practical. (UV2) Shopping in a duty-free shop has economic value. (UV3) I bought a product that I wanted in a duty-free shop. (UV4) Duty-free shops provide me with valuable and important product information.
Hedonic Value	(HV1) Shopping time in a duty-free shop is pleasurable. (HV2) I get excited while shopping in a duty-free shop. (HV3) Shopping in a duty-free shop gives me pleasure. (HV4) Shopping in a duty-free shop is interesting.
Attitude	(A1) Using a duty-free shop is a good thing to do. (A2) Using a duty-free shop is beneficial for me. (A3) Using a duty-free shop is attractive for me. (A4) Using a duty-free shop is wise for me.
Subjective Norms	(SN1) People important to me thought that I should use a duty-free shop. (SN2) Most people who are important to me understand that I use a duty-free shop. (SN3) Most people who are important to me agree that I should use a duty-free shop. (SN4) Most people who are important to me feel positively about my tendency to use a duty-free shop.
Perceived Behavioral Control	(PBC1) I have the financial means to use a duty-free shop. (PBC2) I have opportunities to use a duty-free shop. (PBC3) I can afford the time to use a duty-free shop. (PBC4) My use of duty-free shops depends on my will.
Behavioral Intention	(BI1) I am planning to use a duty-free shop on my next trip, too. (BI2) I am going to speak positively about a duty-free shop. (BI3) I will keep on using duty-free shops. (BI4) I will try to use a duty-free shop on my next trip.

<Table 2> Sample Profile

		Frequency	(%)
Gender	Male	175	42.7
	Female	235	57.3
Age	Under 20	3	0.7
	20 ~ 29	147	35.9
	30 ~ 39	158	38.5
	40 ~ 49	79	19.3
	50 ~ 59	23	5.6
Education	High school or below	8	2.0
	College	41	10.0
	Undergraduate	251	61.2
	Graduate	110	26.8
Occupation	Private business	5	1.2
	Researcher	43	10.5
	Sales position	77	18.8
	Office worker	173	42.2
	Student	93	22.7
	Other	19	4.6
Monthly income	Less than 2,000,000 won (a)	115	28.0
	2,000,000-2,990,000 won	134	32.7
	3,000,000-3,990,000 won	80	19.5
	4,000,000-4,990,000 won	44	10.7
	5,000,000-5,990,000 won	20	4.9
	More than 6,000,000 won	17	4.1

Note: 1,160 Korean won was equivalent to \$1 USD in November 2015.

Source: Oanda (2015)

### 4. Empirical Results

A confirmatory factor analysis was performed to determine whether specific items reliably explained the latent variables. As a result of the analysis, CB3, CB4, and PS1, which had low factor loadings, were removed. The results of the re-verification of the measurement model are shown in <Table 3>. The fit of the model was  $\chi^2 = 933.817$ ,  $df = 454$ ,  $p < 0.01$ ,  $GFI = 0.874$ ,  $AGFI = 0.844$ ,  $CFI = 0.961$ ,  $TLI = 0.954$ , and  $RMSEA = 0.051$ . The GFI and AGFI values were below the 0.9 acceptance level, but the remaining indices were acceptable. The SMC value of the remaining variables was 0.4 or more, and the standardized regression coefficient was 0.5 or more, confirming that it was suitable for the structural model. Therefore, the model of this research seemed to fit well with the data. In addition, the Cronbach's  $\alpha$  value was included within the range of 0.7, and the internal consistency was verified. The variance extraction index of each construct was 0.5 or more, and the conceptual reliability was 0.7 or more, proving that convergent validity was secured.

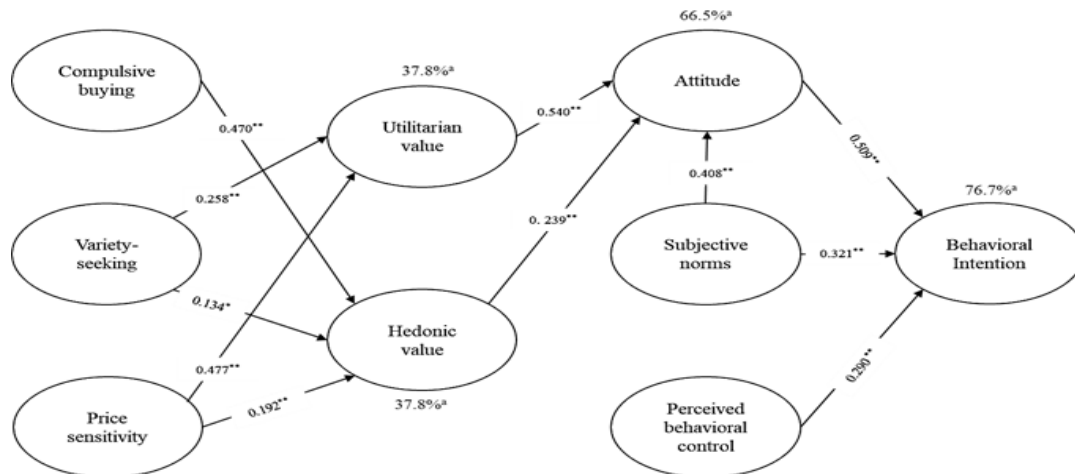
After analyzing the measurement model, the results of the structural equation model estimation showed that the fit was  $\chi^2 = 1403.187$ ,  $df = 468$ ,  $p < 0.01$ ,  $GFI = 0.836$ ,  $AGFI = 0.803$ ,  $CFI = 0.923$ ,  $TLI = 0.913$ ,  $IFI = 0.913$  and  $RMSEA = 0.070$ . Some of the fit scores were lower than the standard, but overall fit was good. The research model and hypotheses of this research are shown in <Figure 2> and <Table 5>.

<Table 3> Statistics of Construct Items

Construct	Measurement Item	Regression Weight (t value)	Standardized Regression Weights	Squared Multiple Correlation	Cronbach's	AVEa	CRb
Compulsive Buying Tendency	CB1	1.000(Fix)	0.951	0.904	0.78	0.677	0.864
	CB2	0.714 (12.136)	0.672	0.451			
Variety Seeking Tendency	VS1	1.037 (22.512)	0.899	0.808	0.885	0.653	0.813
	VS2	1.000(Fix)	0.899	0.807			
	VS3	0.831 (17.138)	0.722	0.522			
	VS4	0.858 (14.822)	0.687	0.472			
Price Sensitivity	PS2	0.653 (14.522)	0.666	0.444	0.845	0.659	0.753
	PS3	1.000(Fix)	0.877	0.77			
	PS4	0.909 (16.46)	0.876	0.767			
Utilitarian Value	UV1	1.000(Fix)	0.844	0.712	0.906	0.670	0.864
	UV2	0.935 (28.013)	0.815	0.665			
	UV3	0.831 (17.138)	0.815	0.665			
	UV4	0.858 (14.822)	0.798	0.637			

Hedonic Value	HV1	0.793 (23.049)	0.804	0.646	0.923	0.760	0.875
	HV2	1.037 (25.738)	0.844	0.713			
	HV3	1.000(Fix)	0.934	0.872			
	HV4	0.956 (30.182)	0.899	0.809			
Attitude	A1	0.968 (32.853)	0.919	0.844	0.946	0.810	0.929
	A2	1.000(Fix)	0.928	0.862			
	A3	0.97 (28.367)	0.873	0.763			
	A4	0.975 (30.277)	0.894	0.799			
Subjective Norms	SN1	1.000(Fix)	0.873	0.762	0.950	0.830	0.944
	SN2	1.058 (25.776)	0.887	0.787			
	SN3	1.095 (30.389)	0.954	0.910			
	SN4	1.044 (28.473)	0.927	0.860			
Perceived Behavioral Control	PBC1	0.845 (20.411)	0.752	0.565	0.879	0.628	0.824
	PBC2	1.000(Fix)	0.835	0.698			
	PBC3	1.038 (17.61)	0.815	0.664			
	PBC4	0.909 (16.46)	0.765	0.586			
Behavioral Intention	BI1	1.028 (25.4)	0.913	0.833	0.898	0.702	0.851
	BI2	1.075 (24.618)	0.898	0.806			
	BI3	1.000(Fix)	0.852	0.726			
	BI4	1.079 (16.687)	0.708	0.501			

Note: All factor loadings are significant at  $p < .001$ . <sup>a</sup> Average variance extracted; <sup>b</sup> Composite reliability



Notes: (1) <sup>a</sup> The amount of variance explained. (2) \* $p < .01$ , \*\* $p < .001$ . (3) Numbers in parentheses are the standardized path coefficients.

<Figure 2> Test Results of the Proposed Model.

**<Table 4>** Standardized Parameter Estimates for Structural Model

	Path	Path coefficient	t-Value	Hypothesis
H1	Compulsive Buying → Hedonic Value	0.470	8.080**	Supported
H2a	Variety Seeking → Utilitarian Value	0.258	4.985**	Supported
H2b	Variety Seeking → Hedonic Value	0.134	2.774*	Supported
H3a	Price Sensitivity → Utilitarian Value	0.477	8.620**	Supported
H3b	Price Sensitivity → Hedonic Value	0.192	3.674**	Supported
H4	Utilitarian Value → Attitude	0.540	10.317**	Supported
H5	Hedonic Value → Attitude	0.239	5.148**	Supported
H6a	Subjective Norms → Attitude	0.408	10.817**	Supported
H6b	Subjective Norms → Behavioral Intention	0.321	6.626**	Supported
H7	Attitude → Behavioral Intention	0.509	11.763**	Supported
H8	Perceived Behavioral Control → Behavioral Intention	0.290	5.862**	Supported

Notes: \* $p < 0.01$ , \*\*  $p < 0.001$

The results of these hypothesis tests show that all of our hypotheses were statistically significant. The results can be summarized as follows. First, the most influential factor of the hedonic value among consumer characteristics was compulsive buying, and price sensitivity had the greatest effect on utilitarian value. In other words, when compulsive buying increased, hedonic value increased. This occurred because the duty-shop environment differs from other purchasing environments, and it acts as a positive effect for duty-shop users to escape from daily life. In addition, the tax exemption feature makes it more noticeable to customers with high price sensitivity. Second, variety seeking had a significant effect on utilitarian and hedonic value. The same results were produced by Roehm and Roehm(2005). When consumers seek variety as they purchase (or consider purchasing) goods, shopping value is formed, which is an important consideration for duty-shop users when they evaluate or select duty-free shops. In other words, purchase behavior depends on the extent to which the behavior satisfies the desire to seek variety. Third, price sensitivity had a greater effect on utilitarian value rather than hedonic value. Duty-free shop users are more likely to search for cheaper prices. They are more sensitive to the information on duty-free prices, and duty-shop environments also affect customers differently. Considering these environmental characteristics, the significantly influential relationship with utilitarian value is understandable. In addition, price sensitivity was also significant in relation to hedonic value because the price sensitive duty-free shop users perceived

the emotional benefits of the duty-free shopping process, namely the value of enjoyment and fun. These results were also produced by Sherry (1990). Hedonic value is influenced to a greater extent by the environment or atmosphere than by the product itself. Fourth, subjective norms influenced attitude and behavioral intention, which seemed to reflect the characteristics of Koreans. In particular, according to culture, behavior is perceived differently; what one considers important in others is different by necessity, causing this difference in perception (McArthur & Baron, 1983; Zebrowitz, 1990). According to a survey on collectivism conducted by the Hofstede cultural dimensions theory(1991), Korea and China were among the most collective. Koreans tend to be collectivist and relationship-oriented, so they tend to be closed and more focused on group norms (Park et al., 2012). Fifth, subjective norms had the greatest influence on attitude, followed by utilitarian value and hedonic value in descending order. Attitude had the greatest influence on behavioral intention, followed by subjective norms and perceived behavioral control in descending order. Consumer personal disposition had a different influence on shopping value. As shopping value increased, more positive attitudes toward duty-free shops were formed, affecting behavioral intention. In addition, subjective norms were an important variable affecting attitude and behavioral intention.

## 5. Conclusions

This study analyzed the influence of the personal disposition of duty-free shop users on shopping value through behavioral intention using an extended model of the TPB. The results can be summarized as follows. First, the compulsive buying tendency, variety seeking tendency, and price sensitivity positively affected hedonic and utilitarian value. This was similar to the results produced by Wong et al. (2012). This suggests that providing an optimized shopping environment makes the shopping experience and purchasing process more fun. In addition, the utilitarian value of easily obtaining cheap goods can be simultaneously satisfied. Second, hedonic and utilitarian value positively affected attitude. Third, attitude, subjective norms, and perceived behavioral control had particular effects on behavioral intention. These results showed that the extension of the TPB, which added a psychological explanatory variable to the prediction of shopping behavior, was more important in the context of specific consumption in a specific environment.

Accordingly, the academic implications of this study can be presented as follows. First, by reexamining the TPB, a widely accepted theory that explains attitude and behavioral intention in the field of consumer behavior, the present study not only contributed to the development of the theory but also helped empirically verify its validity by applying it to the

tax-free shop situation. In particular, we were able to interpret the shopping behavior of duty-free shop users in more detail in that we explored shopping value with an emphasis on the psychological characteristics of the consumer that were revealed in the special context of tax-free shopping. Duty-free shop users clearly intend to pursue affordable purchases and utilize reasonable decision making in navigating information related to duty-free shopping (Batra et al., 1990). Therefore, it is academically significant that we developed and presented a model that can be used to better understand the shopping behavior of duty-free shop users. Also, in the case of the TPB, the explanatory power of the preceding variables for behavioral intention was about 30~40%, while in the present study, the explanatory power was enhanced to 76.7%, suggesting that the contribution of preceding variables was higher than in the TPB. This is in agreement with Azen's (1991) claim to allow the introduction of new variables if explanatory power was reinforced as a preliminary factor in the existing TPB. Likewise, it supports the results of preceding studies with other extended TPB models (Quintal et al., 2010). Second, the value of shopping, which includes the multidimensional nature of consumers considering the consumer's relative evaluation criteria for shopping, is an important variable for predicting consumer behavior. This implies that the extension of the TPB is effective because it affects attitude, which is the main variable of the TPB (Schechter, 1984). Also, by understanding the psychological desire of duty-free shop users, we have confirmed that the special environment of the duty-free shop and personal disposition are most important for shopping behavior. And by understanding the psychology of duty-free shop users based on this theory, this study has contributed to duty-free shop marketing and the establishment of strategies.

Based on the above result, the practical implications of this study can be presented as follows. First, duty-free shops should provide customers with information such as remaining quantities or the time limits of sales so that customers can react immediately and feel pressure to buy. This would lead to more compulsive buying. If this kind of neuro-marketing is implemented, compulsive buying will be converted into a positive psychological stimulation factor rather than a negative addiction. Positive compulsive buying formed in this way will result in ongoing shopping behavior that alleviates stress and anxiety. At the same time, duty-free shops need to make a greater effort to create an environment to stimulate the subconsciousness of users. Second, if effort is made to prepare diverse products that can broaden options for duty-free shop users, it will be possible to predict sales, and customer perceptions will increase positively. Admittedly, there are shop-related limitations with respect to meeting the desires of users who seek diversity. Still, efforts should be made along this line. In view of an expansion in consumer purchasing channels through direct imports from abroad, duty-free shops should

check popular goods on overseas websites to reflect these goods in their choice of offerings to consumers. Offering variety packs with goods such as cosmetics and perfumes can also be an effective alternative. If an effort is made to seek diversity in consideration of the purchasing patterns of users by brand, one can expect a certain synergy effect as well. Third, goods and promotions will be needed to ensure that price-sensitive customers are able to purchase duty-free items more actively. Specifically, it is also necessary to broaden the choices for customers by differentiating the price range for each duty-free product category. Also, efforts should be made to enable customers to realize utilitarian value before they travel overseas by introducing a system through which they can compare domestic prices with those of overseas duty-free shops. If the utilitarian value of domestic duty-free shops is maximized, it is expected that consumption will increase at domestic duty-free shops rather than in overseas shops. Fourth, duty-free shop owners will be able to satisfy the hedonic shopping value if they add more duty-free items and increase the fun factor in which the duty-free shop users can participate more actively. In addition to achieving simple purchasing goals at duty-free shops, the attitudes of duty-free shop users should be enhanced through strategic promotions that maximize shopping value by emphasizing the pleasant and interesting emotional aspects of duty-free shops. When attitudes toward duty-free shops improve, these attitudes will contribute to increasing revenue via re-use and recommendations for other interested parties. For their part, duty-free shop owners should take care to avoid unnecessary complaints from duty-free shop users.

The limitations and future tasks of the present study are as follows. First, the sample used in this research was not sufficiently comprehensive. It did not include non-Korean travelers as only domestic Korean duty-free shop users were targeted, leaving the question of the representativeness of the sample unaccounted for. Despite this weakness, the range of research could not but be restricted due to constraints of time and expense. Hence, there is a need to expand our target to non-Koreans in subsequent surveys to generalize the sample by incorporating user groups according to duty-free shop locations. In addition, because this study relied on structured questionnaires, it is necessary to conduct follow-up studies using focus group interviews or actual sales records. Second, consumer characteristics were too narrowly considered as they were limited to compulsive buying, variety seeking, and price sensitivity. Because there is a need to apply a variety of variables to behavioral prediction, future research should examine consumer characteristics more broadly. In particular, if individual consumption disposition is taken into consideration, it would be a great help in expanding a desired behavioral model. Third, the measurements and discussion in this study were limited to duty-free shops in general. However, if more attention is paid to concrete purchase channels (online and

offline duty-free shops), there is a possibility that factors affecting the behavioral intention of the duty-free shop users may turn out to be different. Fourth, this research contained indices that were below acceptable levels in the model fitness index, and this should be corrected by increasing the number of samples represented. It is hoped that subsequent studies will overcome these limitations.

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