

Investigating the effects of sales promotions on customer behavioral intentions at duty-free shops: An Incheon International Airport case study

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Received May, 2013

Accepted August, 2013

Abstract

Purpose This paper seeks to investigate the effects of sales promotions at airport duty-free shops by testing a conceptual model that considers price, coupons, free gifts, points, satisfaction, value, image, and behavioral intentions simultaneously.

Design/methodology For this testing, structural equation modeling was applied to data collected from duty-free shop users at Incheon International Airport.

Findings Price and coupons were found as significant drivers of customer satisfaction, which was directly related to customer value, image, and behavioral intentions.

Originality/value This paper is the first research that examines the effects of sales promotions at the duty-free shops of Incheon International Airport. The identified sales promotion factors that influence the behavioral intentions of customers at duty-free shops are potentially useful for analyzing the possible trends and changes in duty-free shop customer buying behavior.

Keywords Duty-free Shop; Sales Promotion; Behavioral Intentions; Incheon International Airport

1. Introduction

Today, airports worldwide are putting more effort into generating profit by focusing on commercial viability. The importance of airport duty-free shops has been increasing because lots of airports are now putting greater emphasis on deriving operating profit from non-aeronautical revenue rather than aeronautical revenue. To increase the profits from duty-free shops and to attract more airport duty-free shop customers, airports should utilize various promotion strategies. The present paper therefore explores the effects of sales promotions. Here the effect of sales promotions on customer buying behavior is explored by examining a conceptual model that considers price, coupons, free gifts, points, satisfaction, value, image, and behavioral intentions simultaneously.

2. Airport duty-free shop and sales promotion in the Republic of Korea

Generation Research, a Swedish International travel retail research firm, reported that the size of the global duty-free market continued to grow from 2005 until 2008. The following year in 2009, results took a downward turn due to the onset of the global financial crisis. However, the global duty-free market picked up from 2011, recording \$4.6 billion that year (see Figure 1).

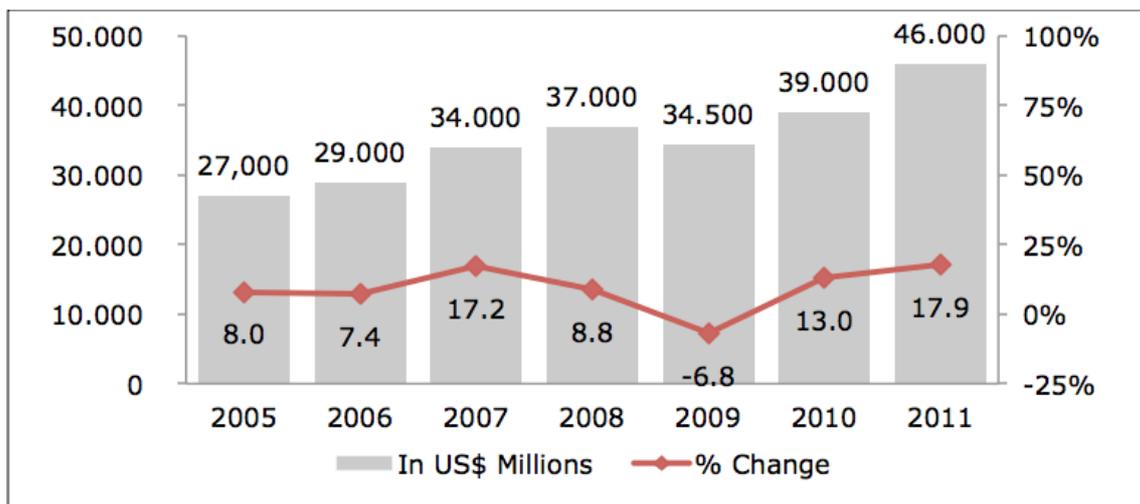


Figure 1. Global duty-free market size trends (2005-2011)

With respect to the world duty-free market share, Europe accounted for the largest proportion from 2005 to 2010, yet its overall market share has been decreasing. On the other hand, duty-free market share is at present continuing to grow, and the duty-free market share of the Asia-Pacific region has reached 38.8%, having passed Europe in 2011 (see Figure 2).

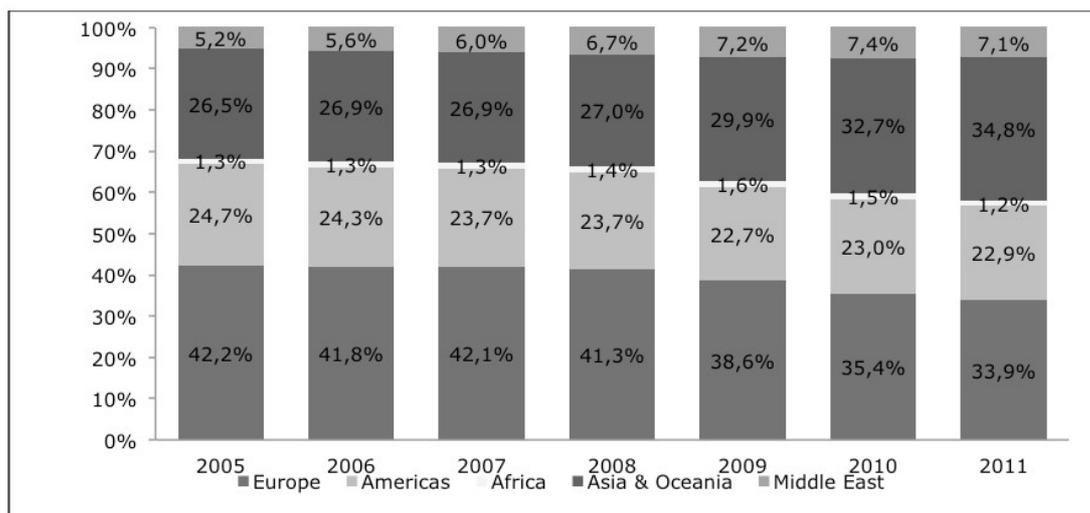


Figure 2. Global duty-free market share trends by region

According to global duty-free sales in 2011, South Korea's share of duty-free revenues accounted for 10.4% of global revenues; this constitutes the biggest market share in the world. Having been runner up to the UK from 2006 till 2008, South Korea took the top ranking for the first time by claiming 8.7% of the global market share, and it has remained on top ever since. The surge in Chinese tourists to Korea due to visa deregulations and the rapid increase in the amount of money these tourists allot for duty-free shopping have contributed to Korea's top ranking. The data from 2011 also shows that three countries from the Asia-Pacific region were included in the top 10 earners in the global duty-free market (see Table 1).

2011 Rank	Location	Market share (%)
1	South Korea	10.4%
2	United Kingdom	6.8%
3	USA	6.2%
4	China	5.4%
5	Hong Kong	4.6%
6	United Arab Emirates	4.2%
7	Singapore	3.5%
8	Germany	3.2%
9	France	2.9%
10	Brazil	2.3%

Table 1. Global duty-free market share ranking by country

On the basis of sales revenues from the world's top 10 duty-free shops, Incheon International Airport (IIA) duty-free took first place, recording sales revenues of more than \$1 billion, followed by Dubai International Airport duty-free in the United Arab Emirates. Changi Airport duty-free in Singapore took third place, and London Heathrow Airport duty-free and Hong Kong

International Airport duty-free took fourth and fifth place, respectively. It should also be noted that aside from the Tallink/Silja Line (a ferry operator) in ninth place, the top 10 duty-free earners are in airports (see Table 2). This indicates the overwhelmingly large proportion of global duty-free sales that are claimed by airports.

2011 Rank	Location		Sales
1	SEOUL – Incheon International Airport, South Korea	Airport Shops	1000
2	DUBAI – Dubai International Airport, U.A.E.	Airport Shops	
3	SINGAPORE Changi Airport, Singapore	Airport Shops	
4	LONDON – Heathrow Airport, UK	Airport Shops	
5	HONG KONG – Hong Kong International Airport, Hong Kong	Airport Shops	700
6	BANGKOK – Suvarnabhumi Airport, Thailand	Airport Shops	
7	FRANKFURT- Frankfurt-Main Airport, Germany	Airport Shops	
8	PARIS – Charles de Gaulle Airport, France	Airport Shops	500
9	TALLINK/SILJA LINE – All routes, Estonia/Finland	Ferri Shops	
10	BEIJING – Capital Airport, China P.R.	Airport Shops	

Table 2. Sales rankings among global duty-free shops

As previously mentioned, the global duty-free market is continuing to grow, which, in turn, is putting greater importance on international duty-free shopping. As a result, many countries are seeking to maximize their profits by creating and maintaining efficient duty-free operations as a way to improve airport profitability. South Korea's IIA also implements a wide range of marketing strategies to maximize its profits; it uses a wide range of the sales promotion-related strategies in particular. Thus, an understanding of the effect of sales promotion strategies being implemented by the airport is important.

A sales promotion is a marketing event focusing in which a corporate entity attempts to influence customers directly (Blattberg & Neslin, 1990). A sales promotion stimulates customer purchases and the efficiency of distributors through marketing activities excluding advertising, public relations and so on. In other words, a sales promotion provides the incentive for consumers to purchase some specific products, and this incentive is different from the incentive provided by advertising with respect to the reasons to purchase those specific products. The purpose of a sales promotion is to attract new customers, maintain existing customers who are contemplating switching brands and give incentives to customers who are about to use competing products. Sales promotions vary depending on the situation and need, and they have an immediate effect on product purchases. Airport duty-free shops aim to sell products during a short period of time and help potential duty-free consumers make decisions easily as they consider numerous alternatives before purchasing products.

A sales promotion can be categorized as either a price-discounting sales promotion or a value-adding sales promotion, depending on the nature of its incentive (Sawyer & Dickson, 1984). A price-discounting sales promotion, presented as a unit price, discounts the price temporarily; methods of doing this include the use of coupons, price discounts and cash refunds. A value-adding sales promotion, which is highly likely to be structured as a separate benefit because its differentiating unit is not price, includes the use of premium gifts and free gifts through a bonus pack draw. On the basis of the theory provided by (Sawyer & Dickson, 1984), this study has categorized sales promotions into four different categories: price discounts, coupons, freebies and points. A price discount is the deduction of a certain amount of money from the tag prices during a certain period of time at an airport duty-free shop. A coupon refers to a certificate that provides a price discount or special benefit to only the holder of that coupon. A freebie refers to a free gift for purchasers, and a points system converts a certain amount of money into millage that can later be used as cash. Customer reaction typically varies depending on the type of sales promotion being used; a special sale item might increase an existing consumer's inclination to make a purchase, while other types of sales promotions might be more effective in attracting new consumers (Cotton & Babb, 1978). Thus, this study investigates the effects that airport duty-free sales promotions have on customer satisfaction and which of the four types of sales promotions has the greatest effect on customer satisfaction.

Customer satisfaction is the overall satisfaction that an airport duty-free user has after experiencing a sales promotion, and customer value is the valuation of the time, effort and amount of money invested in the sales promotion by the airport. Corporate image can be defined as the overall image of the airport in the minds of airport users. Customer satisfaction and customer value interact with one another, and these two variables are the factors that are crucial in affecting the behavioral intention of customers (Gross, 1997). Furthermore, customer satisfaction is the antecedent of corporate image. Therefore, customer satisfaction improves corporate image, which will, in turn, generate repurchases and the word-of-mouth effect, and it will also generate customer loyalty for the corresponding company. Airport duty-free users build the image of the airport in their minds, and those images will eventually have a direct effect on their behavioral intention. Therefore, it is very crucial to analyze the role and the effect of images.

Behavioral intention suggests that the key elements used to predict the directivity and future behavior of consumers are the results of all the variables used in this study. Behavioral intention is considered to be the outcome of the overall satisfaction that includes the intention to return and the intention to recommend (Bendall-Lyon & Powers, 2004). Behavioral intention can be defined as individual will and faith that airport duty-free users want to express through

future behavior after having formed an attitude toward the sales promotion they experienced in the airport duty-free shop. In other words, it is the amount of the satisfaction of the airport duty-free users transmitted to others and the strength of the intention to purchase duty-free items.

The conceptual model (see Figure 3) is based on a review of previous work that has looked at sales promotions, customer value, image, customer satisfaction and behavioral intention (Dong, 2008; Yoo, 2010). The hypotheses to be tested empirically are shown as arrows, and all the paths are hypothesized to be positive.

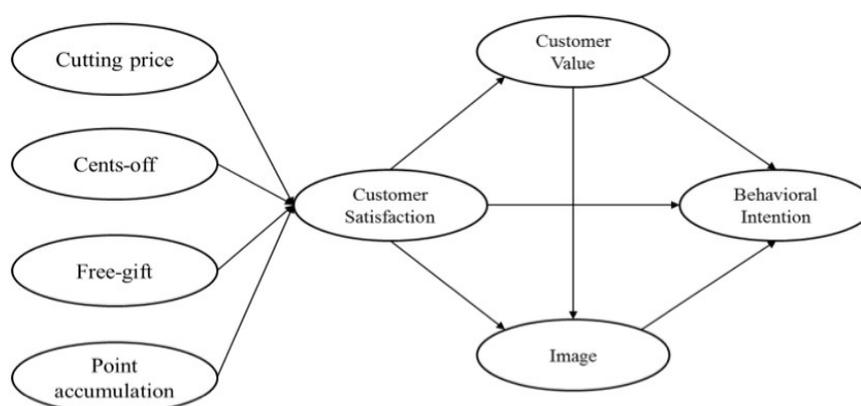


Figure 3. Conceptual model

3. Methodology

The design of the survey questionnaire was based on multiple-item measurement scales adopted from previous research (Lee, 2007; Lichtenstein et. Al, 1997). The scales for sales promotions, customer satisfaction, customer value, image and behavioral intention used five-point strongly agree to strongly disagree statements. A pretest of the scales led to some adjustments of the wordings of a few items. Details of the multi-item measures are reported in Table 3.

The data source was a survey given to IIA customers. Korean travelers leaving from the IIA were asked to fill in a written questionnaire, either in the public departure hall (75%) or at the gates (25%). The survey was carried out in the course of one month in April 2011. A total of 497 customers were used for the data analysis. Survey samples are well distributed in terms of gender, age, occupation, education level and income factors. The sample profiles are presented in Table 4.

Measures	Variables*
Sales promotion	<p>I purchase discounted or sale items after looking around the airport.</p> <p>I tend to purchase discounted duty-free items.</p> <p>I prefer the airport duty-free shops that provide discount coupons.</p> <p>I tend to use discount coupons to purchase duty-free items.</p> <p>I have more interest in duty-free items that I can use discount coupons to purchase.</p> <p>I normally use airport duty-free shops that provide freebies.</p> <p>I tend to check if an airport duty-free shop would provide freebies before purchasing duty-free items.</p> <p>I purchase duty-free items by using the points that I have accumulated in the airport duty-free shops.</p> <p>I tend to use an airport duty-free shop when I can collect points.</p> <p>I have a great interest in collecting points in the airport duty-free.</p>
Customer satisfaction	<p>In general, I am satisfied with the duty-free items that I purchased in the airport.</p> <p>I am satisfied with my use of (an) airport duty-free shop(s).</p> <p>I think my choice of airport duty-free shop was wise when purchasing duty-free items.</p>
Corporate Image	<p>The image of airport is good.</p> <p>The positive image of airport has increased.</p>
Customer value	<p>I think I can save money from using airport duty-free shop.</p> <p>I think the value for the money is high in the airport duty-free shop.</p>
Behavioral intention	<p>I will use the airport duty-free shop that I used before when purchasing duty-free item.</p> <p>I will speak positively to others about the airport duty-free shop.</p> <p>I will recommend the airport duty-free shop to my acquaintances who want to purchase duty-free items.</p>

* Note: a five-point Likert scale

Table 3. Measurement items

Demographic characteristics	Frequency	Percentage (%)
Gender		
Male	234	47.1
Female	263	52.9
Age		
20-29	132	26.6
30-39	200	40.2
40-49	91	18.3
50-59	67	13.5
60 and over	7	1.4
Education		
High school or below	27	5.4
College	55	11.1
Undergraduate	228	45.9
Graduate	179	36.0
Etc.	8	1.6
Occupation		
Office worker	124	24.9
Researcher	86	17.3
Sales position	33	6.6
Private business	31	6.2
Student	64	12.9
Others	159	32
Income		
Less than 1,000,000 won (a)	52	10.5
1,000,000-2,000,000 won	8	16.3
2,000,000-3,000,000 won	134	27.0
3,000,000-4,000,000 won	100	20.1
More than 4,000,000 won	130	26.2

Note: 1,073 Korean won was equivalent to \$1 USD in December 2012

Table 4. Customer profiles

4. Empirical results

The 20 items were submitted to a confirmatory factor analysis. The resulting measurement model showed an acceptable fit ($\chi^2(142)$ of 266.827, $p = .000$; RMR = .029; GFI = .951; AGFI = .928; NFI = .954; CFI = .978; RMSEA = .042). Composite reliabilities for the measures ranged from .55 to .94, and all but one of the constructs had a variance extracted estimate greater than .50, demonstrating reliability based on accepted standards (Anderson & Gerbing, 1988; Fonell & Larcker, 1981). All items loaded highly on their respective construct, and the variance extracted estimates exceeded the square of the phi estimates for all constructs,

providing evidence of convergent and discriminant validity (Anderson & Gerbing, 1988; Fornell & Larcker, 1981) (see Table 5). A correlation analysis was conducted between sales promotion variables, customer satisfaction, customer value, image and behavioral intentions. The results showed that cutting price, cents off, free gift, point accumulation, customer satisfaction, customer value and image had a positive correlation with behavioral intentions at the .01 level of statistical significance (see Table 6).

Factor subscales	Factor loadings(standardized regression weights)							
	CP	CO	FG	PA	CS	CV	I	BI
Cutting price								
P1	.82							
P2	.81							
Cents off								
P3		.85						
P4		.85						
P5		.75						
Free gift								
P6			.75					
P7			.66					
Point accumulation								
P8				.82				
P9				.91				
P10				.90				
Customer satisfaction								
S1					.85			
S2					.89			
S3					.77			
Customer value								
V1						.81		
V2						.91		
Image								
I1							.85	
I2							.90	
Behavioral intention								
B1								.69
B2								.91
B3								.85
Note: CP=Cutting price; CO=Cents off; FG=Free gift; PA=Point accumulation; CS=Customer satisfaction; CV=Customer value; I=Image, BI=Behavioral intention								

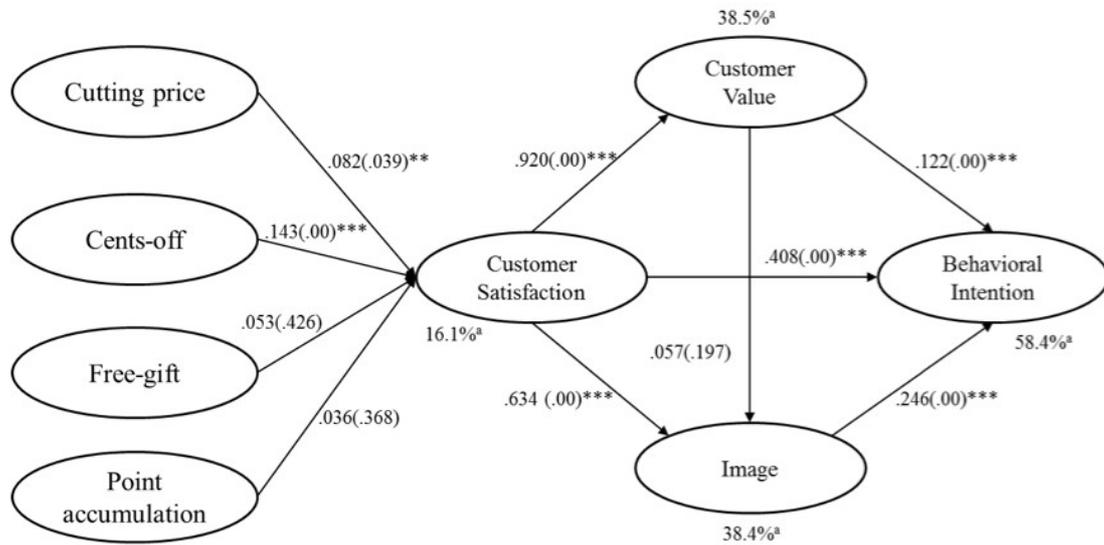
Table 5. Confirmatory factor analysis results

The proposed structural model showed an acceptable fit (χ^2 (154) of 317.474, $p = .000$; $RMR = .045$; $GFI = .940$; $AGFI = .919$; $NFI = .946$; $CFI = .971$; $RMSEA = .046$) and explained a substantial amount of variance in the key variables. The model explained 16.1% of the variance in customer satisfaction, 38.5% of the variance in customer value, 38.4% of the variance in corporate image and 58.4% of the variance in behavioral intentions. Therefore, a high level of explanatory power emerges. The result of the hypotheses testing is presented in Figure 4.

Constructs	CP	CO	FG	PA	CS	CV	I	BI
CP	1.000							
CO	.512	1.000						
FG	.461	.585	1.000					
PA	.288	.451	.576	1.000				
CS	.274	.354	.269	.206	1.000			
CV	.329	.261	.320	.323	.612	1.000		
I	.285	.275	.332	.244	.605	.430	1.000	
BI	.251	.306	.284	.269	.704	.573	.622	1.000

Note: CP=Cutting price; CO=Cents off; FG=Free gift; PA=Point accumulation; CS=Customer satisfaction; CV=Customer value; I=Image, BI=Behavioral intention

Table 6. Correlations between the constructs



^a The amount of variance explained

** $p < .05$., *** $p < .01$.

Figure 4. Test results

Except for three causal paths, all the other hypothesized relationships were statistically significant. The three statistically insignificant paths were the effect of a free gift on customer

satisfaction, the effect of point accumulation on customer satisfaction and the effect of customer value on image.

As hypothesized, cutting price and cents off were found to have a positive effect on customer satisfaction. These results indicate that if duty-free shop customers perceive the price is low due to a reduction sale and a cents off event, they are more likely to be satisfied. Customer satisfaction had a positive influence on customer value, image and behavioral intentions. This finding suggests that satisfied customers will perceive a good value for money and will form a favorable overall image of the duty-free shop, resulting in them using the duty-free shop again in the future and recommending the duty-free shop to other people. Customer value had a positive effect on behavioral intentions. This implies that value perception is a key driver of the future buying behavior of duty-free shop customers.

5. Conclusions

The present study has empirically verified the relationship between sales promotions, customer satisfaction, customer value and behavioral intention, legitimizing the growth of sales promotions within the duty-free shop sector. The analysis showed that there were significant relationships between cutting price, cents off, customer satisfaction, customer value, image and behavioral intentions. These variables were directly or indirectly related to duty-free shop customer repurchase intentions and word-of-mouth communications. The results from this study imply that duty-free shops should recognize the relative importance of sales promotion strategies. Duty-free shops should realize that attractive sales promotion strategies should enhance customer repurchase intention and recommendations to other customers because they raise the level of customer satisfaction, value perception and duty-free shop image formation.

There are some limitations and additional research areas for future research. Firstly, this study has mainly focused on four types of sales promotions. There are additional sales promotion types that can be considered for airport duty-free shop customers. Therefore, additional empirical research could be conducted to investigate the effect of various categories of sales promotions on behavioral intentions. Secondly, the effects of sales promotions on duty-free shops customers' behavioral intentions might differ according to gender, age, income level, and education level. Thus, future research that includes the analysis of demographic variables with respect to sales promotions, customer satisfaction, customer value, image, and behavioral intentions would be valuable.

Acknowledgments

The authors acknowledge the comments and suggestions provided by the anonymous reviewers. The co-operation of Incheon International Airport for the survey of this study is also highly appreciated.

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