



# Effect of Factors Affecting Adolescents' Perfume Purchasing Behavior on Purchasing Satisfaction

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## Abstract

**Purpose:** This study investigated the effects of perfume purchasing behavioral factors on purchase satisfaction with 328 adolescents. **Conclusions:** In conclusion, it was found that among the six factors affecting purchasing behavior of perfume, the variables that had a statistically significant effect on purchase satisfaction were internal pleasure-seeking ( $p < .001$ ) and fashion-seeking ( $p < .001$ ). This is thought to affect purchase satisfaction by reflecting attractive images, favorable feelings, and pleasure by using perfumes preferred by adolescents. In addition, it is thought that the psychological characteristics of adolescents who want to follow trends while pursuing trends when purchasing perfumes are reflected.

**Keywords :** Adolescents, Perfume, Purchase status, Purchase behavior

**JEL Classification Codes :** F41, G14, J13, M31, M37

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## 1. Introduction

With the recent development of the cosmetics market, the domestic perfume market in Korea is invigorating and the consumer base is expanding. Since the 1990s, the use of perfumes has increased in Korea as the conditions for using perfumes and consumer perceptions have changed due to the increase in national income, the improvement of living standards, the liberalization of overseas travel, and the complete opening of the cosmetics market (Choi, Shin, Jung, & Lee, 2002). Adolescents are superior to other age groups in terms of embracing digital technology, and

because of information retrieval and information exchange through networking, they have a relatively higher information advantage. In addition, unlike in the past, they have much more pocket money and opportunities to buy things according to their economic ability due to the decrease in the number of children in the household and the improvement of their status became the largest (Moon, 2003).

The consumption tastes of teenagers are more sensuous and instantaneous than functional and rational, so they not only make impulse purchases but also have a lot of consumption power. It can be seen that the fact that, once

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attracted to a specific brand, they can be secured as customers for life is one of the important reasons why the cosmetics industry pays great attention to them (Jeun, 2000). As such, young consumers are among the consumers with stronger purchasing power in the future than in the present.

Perfume represents me while being different from others, and as more and more people are starting to find their own unique scent, perfume is considered a new medium with various meanings and functions in various fields (Lee, 2003). Perfume is not exclusive to upper-class women, but has come to a point where anyone can use perfume to convey the image they seek (Lim, 2017).

Looking at perfume-related research so far, an empirical study on perfume purchasing behavior (Woo, 2014), fragrance and perfume purchasing behavior preferred by women in their 20s and 30s (Nam, 2007), and perfume use and purchasing behavior preferred by female college students. Most of the studies on adults, such as the study on this topic (Kim, 2014), and the purchasing behavior of perfume (Kim & Kim, 2013) according to the fashion leadership of male college students, there have been few studies on perfume use among adolescents.

Therefore, this study intends to provide basic data in the fields of perfume purchase, product development, and marketing for teenagers by analyzing the effects of perfume purchasing factors on perfume purchase satisfaction among teenagers.

## **2. Theoretical Background**

### **2.1. Definition and Role of Perfume**

Fragrance refers to an odor that the olfactory nerve is stimulated to feel when a volatile substance is emitted and is beneficially used in human life. The word "fragrance" is also commonly used as the word for incense, which is derived from the Latin word "fragrare", which means "to smell" (Ha, 2018). Perfume is derived from the Latin word 'perfumum', which means 'through smoke', and refers to a substance that gives off a pleasant scent, smell, or good scent (Lim, 2017).

Fragrance has been used in various ways in people's lives together with mankind, and it is possible to cultivate inner and outer beauty through fragrance (Kim, 2014).

Most perfumes are made with a combination of several perfumes, and the quality of perfume varies depending on the type and concentration of perfume, and the grades and types of perfume are classified (Nam, 2007).

People get a lot of information through scent. Animals achieve the maintenance of life and prosperity of the species through the information of scent, but the scent of animals has a great influence on people mentally. Fragrance not only gives a good sense to a person's emotions, but also helps to maintain and improve homeostasis (Kim, 2014; Nam, 2007). Also, it is formulated to 'mask' the fragrance material, which is to use the fragrance so that it does not smell bad. Since some cosmetic bases are accompanied by the inherent odor of raw materials, it is also important to mask them with fragrance to improve the sense of smell.

### **2.2. Purchasing Behavior Factors**

When consumers select and consume a preferred product or brand to achieve their consumption purpose, factors that influence selective purchase include preference, satisfaction, and purchase intention. Preference is a state in which attachment to and affection for a product comes from prior experience. Satisfaction is a state in which a very organic relationship is formed by forming a favorable attitude toward a product or brand by influencing repeated purchases and favorable word-of-mouth effects. Purchasing intention is the driving force behind purchasing behavior as the reason that an individual purchases a specific product or service to satisfy their desire, and is based on psychological or physiological needs (Park & Choi, 1998).

### **2.3. Purchasing Satisfaction**

Purchasing satisfaction can be defined as the result of a positive evaluation of expectations, at least when it meets or exceeds the expectations of consumers after purchasing a product (Cronin & Taylor, 1992; Park & Park, 2010). Customer satisfaction can be increased by providing high-quality products and services, and this satisfaction acts as a key factor in bringing customer loyalty and long-term financial performance (Swan & Combs, 1976; Park & Yang, 2009). In the case of a satisfied customer, the product or service is repurchased and becomes a loyal customer. This leads to positive word of mouth to others,

which leads to the effect of creating new customers and increasing sales.

### 3. Research Methodology

#### 3.1. Research Hypothesis

It was found that perfume, unlike other cosmetics, places particular importance on the reaction of others (Woo, 2005). Male college students were found to have an effect on perfume purchasing behavior according to fashion leadership (Kim & Kim, 2013). According to the research result of Lim (2017), it was found that female college students used perfume for the purpose of reflecting self-satisfaction factors. In addition, perfume plays a psychological role, as a means of expressing their image and identity as well as a means of delivering a message. Many consumers use perfume as an important non-verbal communication tool (Yoh, 2005). Based on these previous studies, this study hypothesized that the influencing factors of perfume purchasing behavior, such as internal pleasure pursuit, skin safety, brand orientation, fashion pursuit, functionality, and economic feasibility, affect purchase satisfaction.

**H1:** Factors influencing perfume purchasing behavior will affect purchase satisfaction.

**H1-1:** Pursuing intrinsic pleasure will affect purchase satisfaction.

**H1-2:** Skin safety will affect purchase satisfaction.

**H1-3:** Brand orientation will affect purchase satisfaction.

**H1-4:** Trend-seeking will affect purchase satisfaction.

**H1-5:** Functionality will affect purchase satisfaction.

**H1-6:** Economic feasibility will affect purchase satisfaction.

#### 3.2. Method of Data Collection and Analyzation

The survey period was conducted for a total of one year from July 01, 2019 to July 01, 2020. The questionnaire survey was filled out using the NAVER form, and a total of 328 valid samples were collected and used as final analysis data. The collected data were analyzed with the statistical program IBM SPSS 22.0, and the contents are as follows.

First, general characteristics were analyzed for frequency.

Second, for the items on the factors influencing perfume purchase behavior and the items on the perfume purchase satisfaction, the factors were extracted using the principal component method to verify the validity and reliability, and the VARIMAX rotation method was used. When the Cronbach's  $\alpha$  value of each factor was 0.6 or higher, it was considered that there was internal consistency between the items.

Third, a regression analysis was performed on whether the independent variables, such as internal pleasure seeking, skin safety, brand orientation, fashion pursuit, functionality, and economic feasibility, affect the dependent variable (purchase satisfaction).

### 4. Result and Discussion

#### 4.1. General Characteristics of the Research Subjects

Table 1 shows the results of general characteristic analysis. The gender ratio was 60.1% female and 39.9% male, with a high female ratio, and the middle and high school students were similar at 49.1% and 50.9%, respectively. Excluding essential expenses such as transportation and textbooks, 350,000 KRW (Korea Won) (25.9%) accounted for the most pocket money, followed by 50,000-100,000 KRW (24.7%).

**Table 1:** General Characteristics of Subjects(Unit: No, %)

Type	Variables	Frequency	Proportion
Sex	Female	197	60.1
	Male	131	39.9
Education	Middle school	161	49.1
	High school	167	50.9
Pocket money per month (KRW)	1~3 ten thousand	61	18.6
	3~5 ten thousand	85	25.9
	5~10 ten thousand	81	24.7
	10~20 ten thousand	62	18.9

	20 over ten thousand	39	11.9
Total		328	100

#### 4.2. Verification of Validity and Reliability of Factors Influencing Perfume Purchasing Behavior

In general, Cronbach's  $\alpha$  coefficient is used as a reliability verification method, and it is judged that there is reliability if it is 0.6 or more (Nunnally, 1978). Looking at Cronbach's  $\alpha$  of factors influencing perfume purchasing behavior, among the independent variables, internal pleasure pursuit was 0.942, skin safety 0.877, brand orientation 0.862, fashion pursuit 0.869, functionality 0.833, and economic feasibility were found to be 0.733.

The purchase intention and purchase satisfaction of the dependent variables are 0.944, which is considered reliable because the overall Cronbach's  $\alpha$  value is 0.7 or higher. Six

sub-factors with Eigen Value of 1.0 or higher were derived by extracting factors from the group of independent variables influencing perfume purchase behavior using the principal component method and rotating them using the VARIMAX rotation method.

Factor loading of 0.5 or more was considered significant. As a result of Bartlett's sphericity test,  $\chi^2 = 4856.624$  (df=231, sig=-.000), confirming the suitability of the factor analysis model, and KMO was 0.895, which exceeded the reference value of 0.7, so it was confirmed that the selection of variables was appropriate (Kaiser, 1974). The loading of the derived factors was more than 0.5. It is grouped into 6 factors with eigenvalues greater than or equal to 1, factor 1 is 'internal pleasure pursuit', factor 2 is 'skin safety', factor 3 is 'brand orientation', factor 4 is 'fashion pursuit', and factor 5 is 'functionality', factor 6 was named 'economic feasibility' (Table 2).

**Table 2:** Reliability and Validity of Factors Influencing Perfume Purchasing Behavior

Contents	Factor1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Cronbach's $\alpha$
It is attractive to use perfume that fits the image.	.838						0.942
It's fun to use perfume to shape your image.	.833						
It is fun to use perfume to create your own style.	.815						
When you use your favorite perfume, you feel satisfied.	.807						
Buying a perfume that suits your skin type.		.901					0.877
I check the ingredients of the perfume because I am worried about side effects on the skin.		.880					
Buying perfumes with natural ingredients.		.861					
I am worried about stains on dark perfumes.		.726					
Using perfumes from famous brands in order to be recognized by people, even if they are expensive.			.789				0.862
A perfume from a famous brand is worth that much.			.768				
It feels good when you spray perfume from a famous brand.			.760				
Even if the performance is similar, they use a perfume from a famous brand rather than a product with a lower price.			.753				
I am interested and interested in what kind of perfume is in vogue.				.812			0.869
They use a variety of products from different brands.				.783			
I tend to quickly embrace trends related to perfume.				.743			

I want to buy a new perfume when it comes out.				.702			
The most important function of perfume is to remove bad odors.					.856		0.833
Perfume gets rid of bad body odors and makes you feel good.					.751		
I think it is manners to use perfume to hide bad smells.					.712		
You want to buy a perfume that is on a discount.						.798	0.733
I want to buy a perfume that is cheap and has good performance.						.763	
When purchasing a perfume, make sure you fully understand the product information before purchasing.						.546	

Note: KMO=0.895, Bartlett's test  $\chi^2 = 4856.624$ (df=231, sig=-.000)

### 4.3. Verification of Validity and Reliability of Factors Influencing Perfume Purchasing Behavior

Factor analysis and Cronbach's  $\alpha$  test were performed to verify the validity and reliability of the eight items on perfume purchase satisfaction. The analysis results are shown in Table 3 below. As a result of Bartlett's sphericity test for the theoretically derived dependent variable,  $\chi^2 = 2166.314$  (df=28, sig=-.000), confirming the suitability of the factor analysis model.

Since KMO was 0.936, which exceeded the reference value of 0.7, it was confirmed that the selection of variables was appropriate. Factors were extracted using the principal component method and rotated using the VARIMAX rotation method to derive one sub-factor with an eigenvalue of 1 or greater. The loading of the derived factors is 0.5 or more, and the total explanatory power of the derived factors is 72.08%.

Cronbach's  $\alpha$  value was 0.944, ensuring internal consistency between items, and factor 1 was named 'purchase satisfaction' in Table 3.

**Table 3:** Verification of Reliability and Validity of Purchase Satisfaction

Contents	Factor 1	Cronbach's $\alpha$
I will continue to purchase and use the perfume.	.892	0.944
I have a crush on perfume.	.866	

I think the perfume quality is excellent overall.	.858
I am constantly interested in the product information of perfumes.	.838
I will buy the perfume I use now again.	.837
I would like to recommend the perfume to the people around me to use it.	.829
I am satisfied with the use of perfume for the price.	.775

### 4.4. Effect of Perfume Purchasing Behavior Affecting Factors on Purchase Satisfaction

Table 4 shows the results of multiple regression analysis to determine whether the independent variables of the antecedent factors, such as internal pleasure pursuit, skin safety, brand orientation, fashion pursuit, functionality, and economic feasibility, affect purchase satisfaction, which is the dependent variable. As a result of the regression analysis, the F value was 122.046 (sig=-.000), indicating that the multiple regression analysis model was statistically significant.

The value of  $R^2$ , which is the explanatory power of the model, was found to be 0.69. In addition, the VIF (Variance Inflation Factor) was less than 10, and the DW

(Durbin-Watson) was 1.967, and there was no problem in multi-collinearity and autocorrelation between variables.

The  $\beta$  value of the standardized coefficient indicating the effect of internal pleasure pursuit on purchase satisfaction is 0.538. The test statistic for this is  $t=11.942$  ( $p<.001$ ), which is evaluated as statistically significant.

It was consistent with the results of using perfume for self-satisfaction in a previous study by Nam (2007) on adults. The  $\beta$  value of the standardized coefficient indicating the effect of skin safety on purchase satisfaction is  $-.036$ . The test statistic for this was  $t=-1.074$  ( $p>.01$ ), so statistical significance could not be secured. The  $\beta$  value of the standardized coefficient indicating the effect of brand orientation on purchase satisfaction is 0.058. The test statistic for this was  $t=1.143$  ( $p>.01$ ), so statistical significance could not be secured.

The  $\beta$  value of the standardized coefficient indicating the effect of fashion pursuits on purchase satisfaction is 0.270, and the test statistic for this is  $t=6.439$  ( $p<.001$ ), which is evaluated as statistically significant. This shows the trend-seeking and impulsive consumption tendencies that are the teenage consumption characteristics of adolescents, as in the study of high school girls, Kim Yun-jeong and Kim Kyung-mi. Ultimately, it can be said that the psychological factors of the pursuit of inner pleasure and the pursuit of fashion acted on the youth's purchase of perfume. It can be judged that adolescents' personal enjoyment of perfume use had an effect on perfume purchase.

In addition, it is considered that the psychological characteristics of adolescents who want to follow trends while pursuing trends when purchasing perfume and do not want to be left behind are considered to be reflected.

The  $\beta$  value of the standardized coefficient indicating the effect of functionality on purchase satisfaction was 0.065, and the test statistic for this was  $t=1.625$  ( $p>.01$ ), so statistical significance could not be secured.

The  $\beta$  value of the standardized coefficient indicating the effect of economic feasibility on purchase satisfaction was 0.075, and the test statistic for this was  $t=1.775$  ( $p>.01$ ), which did not secure statistical significance. However, in Lim (2017)'s study, the results showed that the purchase

price of perfume was satisfactory. Table 5 below summarizes the results of the hypothesis testing above.

**Table 4:** Effect of Perfume Purchasing Behavior Affecting Factors on Purchasing Satisfaction

Independent variables	Non-standard coefficient		Stand ar d coefficient	t-value	p-value
	B	S.E.	$\beta$		
(Constant)	.248	.139		1.783	.075
Pursuit of inner pleasure	.489	.041	.538	11.942	.000***
Skin safety	-.032	.030	-.036	-1.074	.284
Brand orientation	.060	.042	.058	1.413	.159
Fashion pursuit	.271	.042	.270	6.439	.000***
Functionality	.065	.040	.065	1.625	.105
Economics	.075	.042	.071	1.775	.077

Note: \*  $p<.05$ , \*\*  $p<.01$ , \*\*\* $p<.001$

**Table 5:** Summary of Hypothesis Test Results

	Hypothesis	Adoption/Rejection
H1	Factors influencing perfume purchase behavior will affect purchase satisfaction.	Partial adoption
H1-1	Intrinsic pleasure-seeking will affect purchase satisfaction.	Adoption
H1-2	Skin safety will affect purchase satisfaction.	Rejection
H1-3	Brand orientation will affect purchase satisfaction.	Rejection
H1-4	Trend-seeking will affect purchase satisfaction.	Adoption

H1-5	Functionality will affect purchase satisfaction.	Rejection
H1-6	Economic feasibility will affect purchase satisfaction.	Rejection

#### 4. Conclusion

As people become more and more interested in perfume, consumption behavior is also increasing. In Korea, the perfume market has shifted from famous brand perfumes to authentic brands, and brands that make customized perfumes for themselves are increasing their awareness. In the foreign perfume market, each is trying to raise the brand position in their own country. As of 2019, the perfume market for the past five years has grown at an average annual rate of 6% with a strategy tailored to young consumers in their 20s.

In addition, the existing high-priced perfumes were introduced in smaller sizes, less than half, so that consumers, who felt burdened by the price, could easily purchase the perfume. Perfume distribution also went beyond department stores and entered H&B stores with a lot of floating population, allowing them to freely choose from a variety of fragrances. While the purchasing power of teens' cosmetics continues to rise, the perfume industry is competing fiercely by launching a variety of exotic products, such as trendy products, through character collaboration to target teens, forming a line targeting young people.

Therefore, this study investigated the effect of perfume purchasing behavioral factors on purchase satisfaction with 328 adolescents. In conclusion, it was found that among the six factors affecting purchasing behavior of perfume, the variables that had a statistically significant effect on purchase satisfaction were internal pleasure-seeking ( $p < .001$ ) and fashion-seeking ( $p < .001$ ).

This is thought to affect purchase satisfaction by reflecting attractive images, favorable feelings, and pleasure by using perfumes preferred by adolescents. In addition, it is considered that the psychological characteristics of adolescents who want to follow trends while pursuing trends when purchasing perfumes are reflected.

Compared to other age groups, adolescents learn fashion and adopt new technologies faster. When marketing perfume products for teenagers in the perfume market, it is also necessary to quickly follow the trends.

Since the amount of freely used pocket money is limited,

they prefer to develop low-cost and high-performance products. As a limitation of this study, the number of subject samples was 328, so there is a limit to generalization, and it is considered that the influence before and after the Corona 19 virus was different in setting the period of this study. Therefore, it is considered that more accurate research is needed in the future, and this study is expected to be used as basic data for product development and marketing targeting teenagers in the perfume market.

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