Purpose: This study tried to analyze the relationship between the desire to consume cosmetics and the motivation to purchase customized cosmetics. In the relationship between these variables, the relationship between the perception of the customized cosmetics dispensing manager, who promotes the consumption desire, as a moderating effect, on the purchase motive for customized cosmetics was confirmed. The purpose is to expand the consumption of customized cosmetics and to present the public service value of the customized cosmetics system.

Method: A total of 561 questionnaires were used online for men and women of age of 10 to 69 who have purchased cosmetics nationwide. SPSS 22.0 was used as an empirical analysis method, and analysis was performed using multiple regression analysis and process macros. In order to find out the moderating effect of the perception of customized cosmetics dispensing managers, an analysis was conducted using Process Macro No. 59 model proposed by Hayes (2012).

Results: First, it was revealed that the independent variable, the desire to consume cosmetics, and the dependent variable, the purchase motive for customized cosmetics, had a significant positive effect and a significant influence relationship between the variables.

Second, the perception of the customized cosmetics dispensing manager is to motivate the purchase of customized cosmetics so that the brand/self-expression needs, the relationship/ride needs, the nature-friendly needs, and the pleasure needs are satisfied in a reasonable way in the relationship between the cosmetic consumption needs and the customized cosmetics purchase motivation. A modulatory effect in which an important inducing action is performed was confirmed. As a result, it was found that the influence of cosmetics consumption motives on the purchase motive of customized cosmetics is stronger when the customized cosmetics dispensing manager is known.

Conclusion: As a result of the study, it was confirmed that it is a factor that promotes the desire to consume cosmetics by satisfying the effectiveness of products according to the professionalism and trust of the customized cosmetics dispensing manager. In other words, the confirmation of the moderating effect of the perception of the customized cosmetics dispensing manager is to secure the safety of the ingredients and functions of cosmetics that can be induced by consumer claims in the process of cosmetic consumption desire leading to consumption behavior. These results can be said that the customized cosmetic system showed public service value. In addition, by revealing that the higher the awareness of the customized cosmetics dispensing manager, the higher the motivation to purchase customized cosmetics. This suggests the need for a differentiated marketing strategy.

[Keywords] Customized Cosmetics, Consumption Needs, Purchase Motive, Customized Cosmetics Dispensing Manager, Moderating Effect
1. Introduction

1.1. The background and purpose of the study

In modern society, consumption trends that value individual values and subjective satisfaction are rapidly spreading. Now, as the quality of life increases, it is an era that focuses on individuality and personal values, and customer-tailored "personalized marketing strategies" targeting their own customized products are actively being developed throughout the industry. As the trend of consumption that satisfies individual satisfaction is stronger than the latest trend in the rapidly changing era, customized products that emphasize individual tastes and specialties are increasing[1].

In 2017, "Rebuilding Consumeropia created by consumers" emerged as one of the keywords for consumption trends. This confirmed the change in consumption trends that are shifting from the past, which was the supply-oriented led by companies, to the current consumer-centered market tailored to individual consumers[2].

Recently, IT technologies that can support personalized services such as artificial intelligence, the Internet of Things, and marketing automation have been recognized for their potential, affecting the beauty industry affected by personal consumption culture in various ways[3]. In modern society in the era of the 4th industrial revolution, the purchase of beauty-related products will expand not only from the needs to pursue beauty but also from the purchase of customized cosmetics considering skin, constitution, and health[4].

The convergence of beauty and IT has led to a leap forward with augmented reality, customized cosmetics, and 3D printing technology. The beauty industry is welcoming a new consumption culture in line with the dynamic and rapidly changing era of the 4th industrial revolution[5]. In the era of the 4th Industrial Revolution, IoT, Cloud, and artificial intelligence technologies will rapidly change their customized cosmetics areas through connection with intelligent information technology based on big data and gradually expand to the global market, including lifestyle and business areas. Therefore, in modern society, connection through convergence is an essential keyword[6].

Park Hyun-gil(2017) reported in a marketing column titled "K Beauty + Tech Wave?" published by the Korea Marketing Research Institute that the cosmetics industry introduced the beauty tech industry using digital technology in 2017 and began to incorporate IT technology into the cosmetics industry. In addition, there were 1,000 overseas beauty startups and 63 domestic startups. Tipster, a beauty startup company, said it provided counseling services using digital technology[7]. In terms of industrial development, the introduction of customized cosmetics is an area of the beauty industry that is expected to lead to innovative growth in the cosmetics industry by converging with science and technology such as IT technology and genetic analysis along with the 4th industrial revolution.

In the era of the 4th industrial revolution, when the beauty industry combines IT technology and personalized services, customized cosmetics that reflect individual needs have emerged as a new area in the cosmetics market, and a customized cosmetics market has been formed[8].

According to the "2019 Cosmetics Industry Analysis Report" surveyed by the Korea Health Industry Promotion Agency, as the customized cosmetics sales business begins in earnest, various types of customized cosmetics suitable for individual skin types and characteristics will be produced and sold to meet consumer needs.

Meanwhile, the Ministry of Food and Drug Safety newly established a customized cosmetics dispensing manager system. That is, as the customized cosmetics system implemented on

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1 Customized cosmetics refer to domestically made or imported cosmetics added with other cosmetics or raw materials prescribed by the Ministry of Food and Drug Safety, or cosmetics obtained or imported by subdividing the contents. Cosmetics Act(Act No. 16298, 2019.1.15.)

2 A customized cosmetics dispensing manager is a person who engages in the mixing and subdividing of customized cosmetics pursuant to Article 3(4) of the Cosmetics Act, diagnoses the skin condition and preference of an individual, and mixes
March 14, 2020 begins in earnest, a customized cosmetics dispensing manager is essential to sell customized cosmetics. This is an institutionalization of professional qualifications so that only customized cosmetics dispensing managers can work on mixing cosmetics.

The introduction of the customized cosmetics system began with the intention that institutionalization was required in that the regulatory area belongs to an unclear gray zone, and active activation was needed to satisfy the people's diverse consumption needs and develop the cosmetics industry.

The customized cosmetics system is a support policy proposed by the government to foster a new growth engine for the cosmetics industry. The key is to allow mixing of small portions and existing products, which have been strictly prohibited for safety reasons. In order to ensure safety, it can be said that supplementary measures were prepared by establishing a customized cosmetics sales system and a customized cosmetics dispensing manager system. Prior to the implementation of the customized cosmetics system, an important issue is responsibility for various types of consumer issues that may arise when mixing products and raw materials. In addition, there are concerns about quality safety management in the process of blending products from various companies at separate stores where customized cosmetics dispensing managers are familiar with the blending of "self-made" products. In addition, concerns were raised about the differentiation of services by dispensing managers. In other words, as a matter of securing the safety of individual consumers and recognizing the newly established customized cosmetics dispensing manager, concerns have been raised about safety risks and differentiation of customized services in the blending process.

As the customized cosmetics system was implemented in earnest, there was a big change in the manufacturing and sales method of customized cosmetics from the perspective of cosmetics companies. It is time for companies related to the beauty industry to study customized marketing strategies to solve challenges to provide "customized" solutions by converging cosmetics ingredients and customized functions with IT technology, genetic analysis, and other related fields of science and technologies. Research on customized cosmetics surveyed so far includes studies on the perception of customized cosmetics systems, usage status and preference, purchasing behavior, development of customized beauty information provision services, and material development. Research on securing the safety of individual consumers and differentiating customized services according to the perception of customized cosmetics dispensing managers is very insufficient.

This study, which takes place at the present time when the customized cosmetics system was implemented, began with the aim of identifying cosmetics consumption needs and examining the moderating effect of consumers' perception of cosmetics dispensing managers that promote consumption needs. In addition, it is significant and purposeful to be used as a reference material contributing to the development of the customized cosmetics system and the development of the cosmetics industry by suggesting the need for a differentiated marketing strategy according to the moderating effect.

2. Research Method

2.1. The subject and scope of the study

This study ranged from a study on the effect of cosmetics consumption needs on customized cosmetics purchase motive for men and women aged 10 to 69 who live nationwide and have experience purchasing cosmetics. As a research method, a total of 561 questionnaires collected online from April 16 to April 22, 2020 were used.
2.2. Survey design and definition of variables

In analyzing the effect of cosmetics consumption needs on customized cosmetics purchase motive, the effect of consumption needs on customized cosmetics purchase motive was confirmed by setting the perception of customized cosmetics dispensing managers as a control variable for in-depth research. The questionnaire consisted of a total of 53 questions, and was measured on a 5-point Likert scale (44 questions) and a nominal scale (9 questions).

1) Definition and understanding of customized cosmetics

Customization means manufacturing products or providing services reflecting specific consumer needs. Since several years ago, demands for customization have emerged. Customized products contain both the meaning of personalization and customization, and it means that the self-image of products and consumers is consistent so that individual needs can be met through customized product and service information [9].

Previous studies defined customized cosmetics as "adding and using more ingredients necessary for the consumer to existing products" and "one that is manufactured more tailored to individual skin and tendencies" [10]. Gong Sun-mi and Kim Min-shin (2018) defined that "it is manufactured on the spot according to individual needs" [11].

The definition of "customized cosmetics" specified in the Cosmetics Act is "a cosmetic product obtained by adding other cosmetics or raw materials determined by the Ministry of Food and Drug Safety to the contents of cosmetics manufactured or imported." In addition, it was said that "the contents of cosmetics prescribed by the Prime Minister's Decree, such as solid soap, are excluded." (Enforcement Date: April 7, 2020) (Cosmetics Act No. 17250) In addition, the matters reported by the customized cosmetics sales business are also specified.

2) Desire for consumption

The desire for consumption is a fundamental element explaining the social culture of a given era, and is not fixed regardless of the times, but very flexible according to the social changes of the times [12]. This can also be said to be a sense of deficiency that consumers feel something is insufficient in their consumption. The desire to pursue something that can fill the deficiency is expressed in various ways.

Kim Min-jung (2007) said that it goes beyond the basic and absolute ideology of necessity for something, such as economic effect, in human consumption culture life. It was defined as "a consumption desire subjectively required or desired for more material and mental enrichment [13]." The desire for consumption appears in a variety of ways to pursue something that can fill the deficiency in consumer life. This can be said to explain the essential meaning of needs and the potential needs that consumers gain through the consumption of products or services. In addition, it can be said that it is a process that does its best to show its potential from the perspective of self-realization [14].

In this study, it was defined that the sub-factors of consumption desire are the source of consumers' consumption of cosmetics, consumers' purchasing behavior is deeply related to cosmetics consumption desire, and can meet the needs and expectations of customized cosmetics purchase decision-making. Therefore, based on the research of Kim Min-jung (2007), who developed a measure of consumption needs, and the research of Kim Sook-young (2001) [15] and Lee Jin (2012) [16], who developed a measure of consumption needs, the sub-factors of cosmetics consumption needs were referenced. These are a total of six factors: brand and self-expression needs, aesthetics and youthfulness needs, safety needs, relationship and bandwagon needs, nature-friendliness needs, and pleasure needs. <Table 1> shows the contents and definitions of sub-factors of consumption needs.
Table 1. Sub-factors of consumption needs.

<table>
<thead>
<tr>
<th>Sub-factors</th>
<th>Content and definition</th>
<th>Items</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand and self-expression needs</td>
<td>Desire to consume identifying with the brand one chose, symbolizing one’s authority or honor, and trying to cultivate the brand’s image</td>
<td>7</td>
<td>Kim Ki-oh(2009)</td>
</tr>
<tr>
<td>Aesthetics and youthfulness needs</td>
<td>Desire to consume products that can delay aging, and as consuming products that make oneself look younger and satisfy one’s aesthetics</td>
<td>6</td>
<td>Kim Min-jung(2007)</td>
</tr>
<tr>
<td>Safety needs</td>
<td>Desire to consume products suitable for one’s physical characteristics and safe ingredients, and to consume products certified by clinical results</td>
<td>5</td>
<td>Kim Sook-young(2001)</td>
</tr>
<tr>
<td>Relationship and bandwagon needs</td>
<td>Desire to feel homogeneous with people around oneself with cosmetics, to be interested in cosmetics purchased by people around oneself, and to consume cosmetics that follow the popular trend</td>
<td>6</td>
<td>Lee Jin(2012)</td>
</tr>
<tr>
<td>Nature-friendliness needs</td>
<td>Desire to consume and have faith in products that are suitable for one’s physical characteristics and nature-friendly and in the manufacturing or preparation process</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Pleasure needs</td>
<td>Desire for pleasure in wanting to consume cosmetics that can satisfy the five senses, or in order to feel pleasant and enjoyable when applying cosmetics</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

3) Motivation to purchase customized cosmetics

Purchasing motive is a direct reason for inducing consumer behavior caused by the expression of consumers’ desire for consumption. It is also a widely applied factor that promotes consumption activities and determines consumers' consumption patterns, such as consumption habits and purchase decision-making. This is the focus of the purchasing process and induces purchasing behavior to purchase specific products or services to satisfy needs. In particular, analyzing the purchase motive for customized cosmetics is an important factor in maintaining consumers by determining the value of perception that consumers give to customized cosmetics[17].

According to the theory of previous studies, this study defines cosmetics purchase motive as an internal driver of consumers who act to purchase cosmetics. This is the internal driver of all human actions, and the direction of tangible and intangible consumer needs is also the direct cause of actions. The following four sub-factors were determined based on the studies of Kim Ki-ok et al.(2006)[18], Han Sung-ji, Kim Moon-sook(2002)[19], Lee Jin(2012), Lee Young-mi and Lee Ok-hee(2003)[20]. These include trend and other motives, skin care and aesthetic motives, economic motives, and product change motives. <Table 2> shows the contents and definition of the purchase motive for customized cosmetics.

Table 2. Sub-factors of motivation to purchase customized cosmetics.

<table>
<thead>
<tr>
<th>Sub-factors</th>
<th>Content and definition</th>
<th>Items</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trend and other-directed motive</td>
<td>Motive to purchase it because it is used by celebrities or seen on other people's cosmetics, magazines, and TV, or recommended by salespeople or other people</td>
<td>4</td>
<td>Kim Ki-oh et al. (2006)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lee Young-mee,</td>
</tr>
</tbody>
</table>
Skin maintenance and aesthetics motive
Motive to purchase to maintain skin protection and to make one's skin stand out or look beautiful and pretty by cosmetics. Motive to purchase for one's own skin type that changes according to the season
Lee Ok-hee (2003)
Lee Jin (2012)

Economic motive
Motive to purchase because it is economical and affordable in terms of price

Product change motive
Motive to buy other products that fit one's skin because the current products don't fit one's skin, get tired of it, and have used them for a long time

4) Customized cosmetics dispensing manager

According to Article 3(4) of the Cosmetics Act, a customized cosmetics dispensing manager is defined as a "person who intends to engage in mixing and subdividing customized cosmetics." They are experts who diagnose individual skin conditions and preferences of manufactured or imported cosmetics and add raw materials determined by the Ministry of Food and Drug Safety to the cosmetics to mix or subdivide them. (Cosmetics Act, Act No. 17250, Article 3(4)). Prior to the implementation of the customized cosmetics system, the Ministry of Food and Drug Safety established a customized cosmetics dispensing manager system (Ministry of Food and Drug Safety, 2019), and the world's first "customized cosmetics dispensing manager system" took effect on February 22, 2020.

Customized cosmetics dispensing managers are part of the institutionalization of the Cosmetics Act as prescribed by the Prime Minister’s Decree. This is the purpose of fostering customized cosmetics experts at the policy level for creating new jobs, and also means that customized cosmetics services are provided through customized cosmetics dispensing managers. Customized cosmetics dispensing managers play a role in mixing pigments or fragrances with the contents of the cosmetics or subdividing them according to the individual’s skin condition and preference. It is not "manufacturing," but "preparing or dispensing".

2.3. Data analysis

SPSS 22.0 was used for statistical analysis, and frequency analysis was performed to analyze the general characteristics of the sample. Exploratory factor analysis and reliability analysis were conducted to verify the validity of the measurement tool. Principal component analysis was used to minimize information loss while extracting factors that explain as much of the variance of the original variables as possible. The analysis was conducted using Varimax rotation, which rotates the factor until the factor structure is most pronounced while maintaining the independence of the factor. Multiple regression analysis and process macros were used to verify the hypothesis.

The general characteristics of the study subjects are as follows. For this study, a survey was conducted on 561 people, and the general characteristics of the study subjects are as follows. Gender: 260(46.3%) men and 301(53.7%) women. Age: 45 people aged 14-19(8.0%), 194 people aged 20-29(34.6%), 179 people aged 30-39, 63 people aged 40-49, and 80 people aged 50-69(14.3%).

In the case of marital status, 340 people(60.6%) were unmarried and 221(39.4%) were married. In the case of final academic background, 124 high school graduates(22.1%), 73 junior college graduates(13.0%), 326 college graduates(58.1%), and 38 graduate students(6.8%).

In the case of occupations, 205 general office workers(36.5%), 53 sales/service workers(9.4%), 10 other sales workers(1.8%), 74 professional service providers(13.2%), 36 housewives(6.4%), 122 students(21.7%), and 61 for other jobs(10.9%). In the case of monthly average income, less than 1 mil. won: 172 people(30.7%); 1-2 mil. won: 101 people(18.0%); 2-3 mil. won: 151 people(26.9%); 3-4 mil. won: 73 people(13.0%); 4-5 mil. won: 22 people(3.9%); and more than 5 mil.
won: 42 people(7.5%). In the case of residential areas, 337 people(60.1%) from Seoul, Gyeonggi, and Incheon; 137 people(24.4%) from Gyeongsang, Daegu, Busan, and Ulsan; 29 people(5.2%) from Jeolla and Gwangju; 44 people(7.8%) from Chungcheong and Sejong; 4 people(0.7%) from Jeju; and 10 people(1.8%) from Gangwon.

2.4. Validation

Exploratory factor analysis was conducted to verify the validity of the measurement tool used in this study. Principal component analysis was used to minimize information loss while extracting factors that explain as much of the variance of the original variables as possible, and Varimax rotation was used to rotate factors until the factor structure was most pronounced while maintaining factor independence. The factor classification was composed of one factor when the eigenvalue was 1 or more, and when the factor loading exceeded .40, it was classified as the corresponding factor.

1) Desire to consume cosmetics

As for cosmetic consumption needs, one item(relationship and bandwagon needs) that hinder validity was excluded, and finally, factor analysis was conducted with 28 items. As a result of factor analysis, the KMO measure was .927. In addition, Bartlett’s sphericity verification result was also significant(p<.000), so the factor analysis model was judged to be suitable. Cosmetics consumption desire was classified as a factor of 6, and six factors showed 70.9% factor explanatory power, as shown in.

2) Motivation to purchase customized cosmetics

As for the motive for purchasing customized cosmetics, one item(Product change motive) that hinders the validity was excluded, and finally, factor analysis was conducted into 14 items. As a result of factor analysis, the KMO measurement was .816, and Bartlett’s sphericity verification result was also significant(p<.000), so the factor analysis model was judged to be suitable. Customized cosmetics purchase motive was classified into four factors, and the four factors showed 65.2% factor explanatory power, as shown in.

2.5. Reliability analysis

Through the survey of this study, reliability analysis was conducted to determine whether respondents consistently responded to the survey, and the alpha coefficient of all variables was 0.6 or higher, indicating high reliability as shown in <Table 3>.

<table>
<thead>
<tr>
<th>Table 3. Reliability analysis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>Desire to consume cosmetics</td>
</tr>
<tr>
<td>Brand and self-expression needs</td>
</tr>
<tr>
<td>Aesthetics and youthfulness needs</td>
</tr>
<tr>
<td>Safety needs</td>
</tr>
<tr>
<td>Relationship and bandwagon needs</td>
</tr>
<tr>
<td>Nature-friendliness needs</td>
</tr>
<tr>
<td>Pleasure needs</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
### 2.6. Empirical analysis

1) Differences in the perception of customized cosmetics dispensing managers according to general characteristics

A chi-squared test was conducted to determine whether there was a difference in the intention to purchase customized cosmetics according to general characteristics (gender, age, marital status, final education, occupation, monthly average income) and perception of customized cosmetics dispensing managers.

As a result of the significance test, women were statistically significant as they were more aware of customized cosmetics dispensing managers than men (χ²=4.120, p<.05). In the case of final education, there was a high awareness of customized cosmetics dispensing managers in the order of high school graduation, college enrollment and graduation, junior college enrollment and graduation, and there was a statistically significant difference (χ²=9.665, p<.05). In the case of differences according to occupation, housewives, sales, and service workers showed relatively high awareness of customized cosmetics dispensing managers, showing statistically significant differences (χ²=14.225, p<.05).

2) Differences in cosmetics consumption needs according to the perception of customized cosmetics dispensing managers

It was found that there was a statistically significant difference according to the perception of customized cosmetics dispensing managers in the overall cosmetic consumption needs brand and self-expression needs, aesthetics and youthfulness needs, relationship and bandwagon needs, nature-friendliness needs, pleasure needs. All of these respondents who knew a customized cosmetics dispenser were higher than those who did not know in the overall cosmetic consumption needs (t=8.087, p<.000), brand and self-expression needs (t=8.963, p<.000), aesthetics and youthfulness needs (t=3.273, p<.01), relationship and bandwagon needs (t=7.698, p<.000), nature-friendliness needs (t=4.147, p<.000), and pleasure needs (t=6.107, p<.000) as shown in.

### 3. Results

3.1. The moderating effect of perception of customized cosmetics dispensing managers

An analysis using Process Macro No. 59 model proposed by Hayes(2012) [21] was conducted to verify whether there is an effect of controlling the perception of customized cosmetics dispensing managers in the relationship between cosmetic consumption needs and cosmetic purchase motive. The independent variable, the desire to consume cosmetics, has a significant positive effect on the dependent variable, customized cosmetic purchase motive (B=0.632, p<.000).

In the relationship between cosmetics consumption needs and customized cosmetics purchase motive, the moderating effect of perception of customized cosmetics dispensing managers was statistically significant (B=0.345 and p<.000), which is shown in <Table 4>. It can be said that the
influence of customized cosmetics consumption desire on cosmetics purchase motive becomes stronger if one knows a customized cosmetics dispensing manager.

**Table 4.** The moderating effect of perception of customized cosmetics dispensing managers.

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>F(R^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motive for purchasing customized cosmetics</td>
<td>Needs to consume cosmetics</td>
<td>0.632</td>
<td>0.030</td>
<td>20.893***</td>
<td>&lt;.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perception of customized cosmetics dispensing manager</td>
<td>0.030</td>
<td>0.039</td>
<td>0.769</td>
<td>.443</td>
<td>182.317*** (.495)</td>
</tr>
<tr>
<td></td>
<td>Motive for purchasing cosmetics × perception of customized cosmetics dispensing manager</td>
<td>0.345</td>
<td>0.069</td>
<td>5.001***</td>
<td>&lt;.000</td>
<td></td>
</tr>
</tbody>
</table>

Note: Whether or not a customized cosmetics dispensing manager is perceived(No=0). * p<.05 *** p<.000.

**3.2. The moderating effect of perception of personalized cosmetics dispensing managers on the relationship between sub-factors of consumption desire and motivation for purchasing customized cosmetics**

In the relationship between cosmetics consumption desire and customized cosmetics purchase motive, the moderating effect of the perception of customized cosmetics dispensing managers was significant. In order to capture more detailed characteristics in marketing strategies, an analysis was conducted using Process Macro No. 1 model proposed by Hayes(2012) to confirm the moderating effect of the perception of customized cosmetics dispensing managers in the relation between cosmetics consumption needs and customized cosmetics purchase motive.

1) The moderating effect of perception of customized cosmetics dispensing managers in the relationship between brand and self-expression needs and customized cosmetics purchase motive

Brand and self-expression needs, an independent variable, have a significant positive effect on the variable motive for purchasing customized cosmetics(B=0.303, p<.000). In the relation between brand and self-expression needs and motive for purchasing customized cosmetics, the dependent perception of customized cosmetics dispensing managers has the moderating effect. The influence of brand and self-expression needs on motive for purchasing customized cosmetics can be said to be stronger when they are aware of customized cosmetics dispensing managers, as shown in <Table 5>.
Table 5. The moderating effect of perception of customized cosmetics dispensing managers in the relationship between brand and self-expression needs and customized cosmetics purchase motive.

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>F(R²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motive for purchasing customized cosmetics</td>
<td>Brand and self-expression needs</td>
<td>0.303</td>
<td>0.021</td>
<td>14.134***</td>
<td>&lt;.000</td>
<td>93.947*** (.336)</td>
</tr>
<tr>
<td>Perception of customized cosmetics dispensing manager</td>
<td>0.062</td>
<td>0.046</td>
<td>1.356</td>
<td>.176</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand and self-expression needs × Perception of customized cosmetics dispensing manager</td>
<td>0.201</td>
<td>0.049</td>
<td>4.072***</td>
<td>&lt;.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Whether or not a customized cosmetics dispensing manager is perceived (No=0), *** p<.000.

2) The moderating effect of perception of customized cosmetics dispensing managers in the relationship between aesthetics and youthfulness needs and customized cosmetics purchase motive

The independent variables aesthetics and youthfulness needs have a significant positive effect on the dependent variable motive for purchasing customized cosmetics (B=0.283, p<.000). The perception of a customized cosmetics dispensing manager as a control variable has a significant positive effect on the dependent variable motive for purchasing customized cosmetics (B=0.273, p<.000). The interaction term between aesthetics and youthfulness needs and perception of a customized cosmetics dispensing manager had no significant effect on motive for purchasing customized cosmetics. Therefore, in the relationship between aesthetics and youthfulness needs of cosmetics consumption needs and motive for purchasing customized cosmetics, the moderating effect of the perception of a customized cosmetics dispensing manager was not significant, as shown in <Table 6>.

Table 6. The moderating effect of perception of customized cosmetics dispensing managers in the relationship between aesthetics and youthfulness needs and customized cosmetics purchase motive.

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>F(R²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motive for purchasing customized cosmetics</td>
<td>Aesthetics and youthfulness needs</td>
<td>0.283</td>
<td>0.030</td>
<td>9.584***</td>
<td>&lt;.000</td>
<td>50.948*** (.215)</td>
</tr>
<tr>
<td>Perception of customized cosmetics dispensing manager</td>
<td>0.273</td>
<td>0.045</td>
<td>6.137***</td>
<td>&lt;.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aesthetics and youthfulness needs × Perception of customized cosmetics dispensing manager</td>
<td>0.087</td>
<td>0.071</td>
<td>1.228</td>
<td>.220</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Whether or not a customized cosmetics dispensing manager is perceived (No=0), *** p<.000.

3) The moderating effect of perception of customized cosmetics dispensing managers in the relationship between safety needs and customized cosmetics purchase motive
Safety needs, an independent variable, have a significant positive effect on the dependent variable motive for purchasing customized cosmetics ($B=0.186$, $p<.000$). Perception of customized cosmetics dispensing managers, which is a control variable, has a significant positive effect on the dependent variable, motive for purchasing customized cosmetics ($B=0.336$, $p<.000$). The interaction term between safety needs and perception of customized cosmetics dispensing managers did not significantly affect motive for purchasing customized cosmetics.

Therefore, in the relationship between safety needs and motive for purchasing customized cosmetics in cosmetics consumption needs, the moderating effect of perception of customized cosmetics dispensing managers was not significant, as shown in $<$Table 7$>$.

**Table 7.** The moderating effect of perception of customized cosmetics dispensing managers in the relationship between safety needs and customized cosmetics purchase motive.

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>F($R^2$)</th>
</tr>
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<tr>
<td>Motive for purchasing customized cosmetics</td>
<td>Safety needs</td>
<td>0.186</td>
<td>0.034</td>
<td>5.469***</td>
<td>&lt;.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perception of customized cosmetics dispensing manager</td>
<td>0.336</td>
<td>0.046</td>
<td>7.351***</td>
<td>&lt;.000</td>
<td>28.811*** (.134)</td>
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<tr>
<td></td>
<td>Safety needs $\times$ Perception of customized cosmetics dispensing manager</td>
<td>0.062</td>
<td>0.074</td>
<td>0.844</td>
<td>.399</td>
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</tbody>
</table>

Note: Whether or not a customized cosmetics dispensing manager is perceived (No=0), *** $p<.000$.

4) The moderating effect of perception of customized cosmetics dispensing managers in the relationship between relationship and bandwagon needs and customized cosmetics purchase motive

The independent variable, relationship and bandwagon needs, have a significant positive effect on the dependent variable motive for purchasing customized cosmetics ($B=0.399$, $p<.000$). In the relationship between relationship and bandwagon needs and motive for purchasing customized cosmetics, the moderating effect of perception of customized cosmetics dispensing managers was shown statistically significant. The effect of relationship and bandwagon needs on motive for purchasing customized cosmetics can be said to be stronger when they are aware of customized cosmetics dispensing managers, as shown in $<$Table 8$>.$

**Table 8.** The moderating effect of perception of customized cosmetics dispensing managers in the relationship between relationship and bandwagon needs and customized cosmetics purchase motive.

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>F($R^2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motive for purchasing customized cosmetics</td>
<td>Relationship and bandwagon needs</td>
<td>0.399</td>
<td>0.019</td>
<td>20.775***</td>
<td>&lt;.000</td>
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<td></td>
<td>Perception of customized cosmetics dispensing manager</td>
<td>0.060</td>
<td>0.038</td>
<td>1.565</td>
<td>.118</td>
<td>182.122*** (.495)</td>
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<td>Relationship and bandwagon needs $\times$ perception of customized cosmetics dispensing manager</td>
<td>0.168</td>
<td>0.042</td>
<td>3.965***</td>
<td>&lt;.000</td>
<td></td>
</tr>
</tbody>
</table>

Note: Whether or not a customized cosmetics dispensing manager is perceived (No=0), *** $p<.000$. 
5) The moderating effect of perception of customized cosmetics dispensing managers in the relationship between nature-friendliness needs and customized cosmetics purchase motive

Nature-friendliness needs, an independent variable, have a significant positive effect on the dependent variable, motive for purchasing customized cosmetics (B=0.211, p<.000). Perception of customized cosmetics dispensing managers, which is a control variable, has a significant positive effect on the dependent variable, motive for purchasing customized cosmetics (B=0.250, p<.000). In the relationship between nature-friendliness needs and motive for purchasing customized cosmetics, the moderating effect of perception of customized cosmetic dispensing managers is statistically significant (B=0.250, p<.000). The impact of nature-friendliness needs on motive for purchasing customized cosmetics can be said to be stronger if they are aware of customized cosmetic dispensing managers, as shown in Table 9.

Table 9. The moderating effect of perception of customized cosmetics dispensing managers in the relationship between nature-friendliness needs and customized cosmetics purchase motive.

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>F(R²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motive for purchasing customized cosmetics</td>
<td>Nature-friendliness needs</td>
<td>0.211</td>
<td>0.026</td>
<td>8.232***</td>
<td>&lt;.000</td>
<td>49.424*** (.210)</td>
</tr>
<tr>
<td></td>
<td>Perception of customized cosmetics dispensing manager</td>
<td>0.250</td>
<td>0.046</td>
<td>5.477***</td>
<td>&lt;.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nature-friendliness needs × Perception of customized cosmetics dispensing manager</td>
<td>0.250</td>
<td>0.063</td>
<td>3.941***</td>
<td>&lt;.000</td>
<td></td>
</tr>
</tbody>
</table>

Note: Whether or not a customized cosmetics dispensing manager is perceived (No=0), *** p<.000.

6) The moderating effect of perception of customized cosmetics dispensing managers in the relationship between pleasure needs and customized cosmetics purchase motive

Pleasure needs, an independent variable, have a significant positive effect on the dependent variable, motive for purchasing customized cosmetics (B=0.320, p<.000). Perception of customized cosmetics dispensing managers, which is a control variable, has a significant positive effect on the dependent variable, motive for purchasing customized cosmetics (B=0.133, p<.01). In the relationship between pleasure needs and motive for purchasing customized cosmetics, the moderating effect of perception of customized cosmetic dispensing managers is statistically significant (B=0.232, p<.000). The impact of pleasure needs on motive for purchasing cosmetics can be said to be stronger if they are aware of customized cosmetic dispensing managers, as shown in Table 10.

Table 10. The moderating effect of perception of customized cosmetics dispensing managers in the relationship between pleasure needs and customized cosmetics purchase motive.

<table>
<thead>
<tr>
<th>DV</th>
<th>IV</th>
<th>B</th>
<th>SE</th>
<th>t</th>
<th>p</th>
<th>F(R²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motive for purchasing customized</td>
<td>Pleasure needs</td>
<td>0.320</td>
<td>0.021</td>
<td>15.533***</td>
<td>&lt;.000</td>
<td>40.608*** (.180)</td>
</tr>
</tbody>
</table>
3.3. Summary of results

Summarizing the results of verifying the moderating effect of perception of customized cosmetics dispensing managers, the relationship between cosmetics consumption needs and motive for purchasing customized cosmetics showed the moderating effect of perception of customized cosmetics dispensing managers. When looking at the perception of customized cosmetics dispensing managers as a control variable, it was found that the perception of customized cosmetics dispensing managers partially controls the relationship between sub-factors of cosmetics consumption needs and motive for purchasing customized cosmetics. In detail, the sub-factors of cosmetic consumption needs, aesthetics and youthfulness needs, and safety needs did not show a significant moderating effect by the perception of customized cosmetic dispensing managers in relation to motive for purchasing customized cosmetics. Brand and self-expression needs, relationship and bandwagon needs, nature-friendliness needs, and pleasure needs showed significant moderating effects of the perception of customized cosmetics dispensing managers in the relationship of motive for purchasing customized cosmetics.

3.4. Discussion

More than half of the respondents said they knew about the customized cosmetics dispensing manager system as a result of the difference in perception of customized cosmetics dispensing managers according to general characteristics. In the results of the survey by Choi Esther(2019)[22], the perception of customized cosmetics was low, while response to the necessity of a customized cosmetics dispensing manager system was very positive. Looking at the items, the customized cosmetics dispensing manager system consists of items such as "help create jobs(including start-ups), help develop the cosmetics industry, help consumers trust their products, help consumers choose cosmetics suitable for their skin, and intend to make and use personal cosmetics." This is a positive result expected by the Ministry of Food and Drug Safety for the customized cosmetics dispensing manager system, and it is interpreted that they have low awareness of customized cosmetics dispensing managers but high expectations when the system is implemented.

On the other hand, the perception of customized cosmetics dispensing managers was analyzed by dividing them into items such as gender, age, marital status, final education, occupation, and average monthly income. As a result, significant results were found in gender, final education, and occupation. Women showed higher awareness of customized cosmetics dispensing managers than men, but the difference was not large, which seems to be the result of a large number of respondents being women.

As a result of the awareness survey of customized cosmetics dispensing managers according to their final education, significant results were found in the order of high school graduation, college enrollment and graduation, junior college enrollment and graduation, and graduate school enrollment and graduation. In the case of occupations, housewives, sales, and service workers had relatively high awareness of customized cosmetics dispensing managers. Looking at the research results of Cho Yoo-kyung(2019)[23], there was a significant difference between men and women in the differences in advertising commitment, information reliability, and
information entertainment according to gender and age. In the case of gender, women were found to be high in all variables such as advertising commitment and information entertainment. It was confirmed that men perceived only information reliability higher than women. In addition, in terms of differences in purchasing behavior, involvement, and purchasing characteristics, it can be seen that women were higher than men in advertising commitment, information entertainment, the number of purchases of basic cosmetics, and average expenditure.

Therefore, in this study, the results of the relatively high housewife's perception of customized cosmetics dispensing managers according to occupation appear to be in a similar context to the research of Cho Yoo-kyung(2019), and it is considered effective to improve the perception of the advertisement composition.

In addition, in the relationship between cosmetics consumption needs and motive for purchasing cosmetics, the moderating effect of perception of customized cosmetic dispensing managers was significant, indicating that the effect of cosmetic consumption needs on motive for purchasing customized cosmetics becomes stronger.

Brand and self-expression needs, relationship and bandwagon needs, nature-friendliness needs, and pleasure needs were found to have a significant influence on purchase customized cosmetics motive as sub-factors of cosmetics consumption needs. It was not significant in aesthetics and youthfulness needs and safety needs. In other words, brand and self-expression needs, relationship and bandwagon needs, nature-friendliness needs, and pleasure needs have a stronger influence on motive for purchasing customized cosmetics when they know about customized cosmetic dispensing managers. As a result, the perception of customized cosmetics dispensing managers is confirmed to have a direct moderating effect in the causal relationship between cosmetics consumption needs and motive for purchasing customized cosmetics. These results can be said that the motive for purchasing customized cosmetics is not established independently, but is formed based on the desire to consume cosmetics.

Customized cosmetics that satisfy detailed needs are consumer goods that companies should pay attention to in the beauty industry. With the full implementation of the customized cosmetics system, cosmetics companies should also pay attention to securing safety needs by deriving the suitability of consumer needs according to consumption needs and solving quality safety management and "customized" solutions using the expertise of customized cosmetics and dispensing managers.

Based on the above results, it is considered effective to establish marketing strategies for each sub-factor of cosmetics consumption needs and cosmetics purchase motive targeting consumption trends that have recently been actively developed. In particular, it is necessary to promote customized cosmetics based on consumers’ desire to consume cosmetics and provide accurate information on customized cosmetics. In addition, it is necessary to find customized cosmetics marketing means and methods through consumers’ desire to consume cosmetics, thereby establishing a marketing process centered on the desire to consume cosmetics made with consumers.

4. Conclusion

This study focused on the moderating effect of the perception of customized cosmetics dispensing managers to find out the effect of cosmetics consumption needs on customized cosmetics purchase motive for men and women aged 14 to 69 nationwide.

The research results are as follows.

First, it was revealed that the independent variable, the desire to consume cosmetics, and the dependent variable, motive for purchasing cosmetics, have a significant positive effect and a significant influence relationship between variables.
Second, the perception of customized cosmetics dispensing managers confirmed the moderating effect of inducing motive for purchasing cosmetics so that the brand and self-expression needs, relationship and bandwagon needs, nature-friendliness needs, and pleasure needs are satisfied in a reasonable direction in the relationship between cosmetic consumption needs and motive for purchasing cosmetics.

As a result, it was confirmed that the desire to consume cosmetics that reflects the characteristics of modern society is an important factor in forming a consumption culture. This study confirmed the moderating effect of the perception of customized cosmetics dispensing managers attempted to revitalize the cosmetics market for “customized marketing.” This study revealed that the higher the awareness of the cosmetic of the dispensing manager, the higher the motive to purchase customized cosmetics. It also revealed that this is an important factor that can explain the relationship between the desire to consume cosmetics and the motive to purchase customized cosmetics. Therefore, it can be significant that this study derived consumption needs by closely examining consumers’ needs for customized cosmetics. In the future, the customized cosmetics dispensing manager system can develop the customized cosmetics industry and satisfy consumers’ high expectations for customized cosmetics dispensing managers. To this end, it is necessary to provide educational programs to acquire public value purchases of products and customized services.

5. References

5.1. Journal articles


[19] Han SJ & Kim MS. A Study on the Different Clothing Purchasing Motives and Information Sources for Lifestyles of Women in their 50s and 60s. The Society of Clothing Culture, 10(2), 116-131 (2002).

5.2. Thesis Degree


5.3. Additional references


6. Appendix

6.1. Authors contribution

<table>
<thead>
<tr>
<th>Initial name</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Author</td>
<td>-Set of concepts ☑</td>
</tr>
<tr>
<td></td>
<td>-Design ☑</td>
</tr>
<tr>
<td></td>
<td>-Getting results ☑</td>
</tr>
<tr>
<td></td>
<td>-Analysis ☑</td>
</tr>
<tr>
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<td>-Make a significant contribution to collection ☑</td>
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<tr>
<td></td>
<td>-Final approval of the paper ☑</td>
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<tr>
<td></td>
<td>-Corresponding ☑</td>
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<tr>
<td></td>
<td>-Play a decisive role in modification ☑</td>
</tr>
<tr>
<td></td>
<td>-Significant contributions to concepts, designs, practices, analysis and interpretation of data ☑</td>
</tr>
<tr>
<td></td>
<td>-Participants in Drafting and Revising Papers ☑</td>
</tr>
<tr>
<td></td>
<td>-Someone who can explain all aspects of the paper ☑</td>
</tr>
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</table>

Corresponding Author* EC