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The Effect of Consumption Value of Alternative Protein Products on Self-Efficacy and Purchase Intention*

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Abstract

Purpose: As the number of vegetarians continues to rise in tandem with the development of consumer culture, a novel economic trend named 'Vegenomics' has surfaced. In addition, as interest in social and environmental sustainability such as health, environment, and animal welfare grows due to the COVID-19 pandemic, the alternative protein food market is expanding, focusing on plant-based alternative meat. **Research design, data, and methodology:** Therefore, this study aims to investigate the impact of the consumption value of alternative protein products on self-efficacy and purchase intention. This study collected a total of 187 questionnaires by conducting an online survey from May 1 to July 10, 2023, to verify the research model and hypothesis. The collected data were subjected to exploratory factor analysis, confirmatory factor analysis, and discriminant validity analysis using SPSS 20.0 and AMOS 20.0 programs for structural equation modeling. **Results:** The results of analyzing consumers' self-efficacy and purchase intention regarding the functional value, health-oriented value, ethical value, and ecological value of alternative protein products are as follows. First, among the consumption values of alternative protein products, ecological value was found to have a significant positive (+) effect on self-efficacy. Second, consumers' self-efficacy for alternative protein products was found to have a significant positive (+) effect on purchase intention. **Conclusion:** This study is anticipated to provide valuable insights for the formulation of effective marketing strategies for alternative protein products and the development of products that align with consumer needs.

Keywords : Alternative Protein, Consumption Value, Self-Efficacy, Purchase Intention

JEL Classification Code : M30, M31, M39

1. Introduction

According to Hwang (2020), as of 2020, the number of vegetarian-oriented people in Korea reached approximately 1.5 million. This figure is almost 10 times higher than in 2008. Furthermore, it was revealed that the population of complete vegetarians has exceeded 500,000. In this way, recent food consumption behavior appears to be a steady increase in the number of vegetarians due to rapid changes in the economy, society, and population structure, such as the increase in single-person households and the aging population (Je & Shin, 2015). As the spread of COVID-19 has prolonged, people spend more time at home, the food they consume has become more important, and people's

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perception of vegetarian culture, which was considered a personal taste of some people, has been replaced by healthy and nutritious meals, and safe vegetarian consumption is changing into a culture with attention (Baek, 2021).

This increase in vegetarians leads to a decrease in the meat-centered food culture, leading to an increase in alternative meat consumption. Since 2018, the annual growth rate of the global alternative protein food market is estimated at 9.1%, and according to overseas analysis, the alternative protein food market is expected to grow to approximately $24.3 billion (approximately KRW 29 trillion) in 2026 (Lee, 2020). As such, plant-based meat substitutes are increasingly needed and are expected to develop in the future due to changes in well-being, social resilience, the growth of the alternative protein food market for vegetarians, the decline in consumption of meat products due to interest in the environment and sustainability, the expansion of recognition of alternative protein foods as health foods, and the launch of various innovative products using alternative proteins (Kim, 2005).

For example, Nongshim's 'Vegetable Ramen', which was launched in 2013, is generating annual sales of about 2 billion won, and Lotteria's vegan burger 'Lea Miracle Burger' has been very popular, selling more than 1.3 million units since its launch.

As consumers' interest in health and the environment increases, the demand for alternative protein products is increasing, and alternative protein products are recognized as an important part and purchase behavior is achieved. Therefore, this study aims to enhance understanding of vegetarian and alternative protein markets by analyzing the consumption value of alternative protein products and the impact of related factors on consumers' self-efficacy and purchase intention, and to explore the economic, and social impact of these consumption behaviors. Through this, we can more clearly understand consumption patterns in the food market by understanding consumers' behavioral patterns and consumption motivations for alternative proteins, and understand the impact of consumers' self-efficacy and purchase intention on the success of alternative protein products, companies are expected to be able to establish more effective marketing strategies. Additionally, by understanding consumer awareness of alternative protein products, the food industry is expected to be able to develop more diverse and innovative products.

2. Literature Review

2.1. Alternative Protein

Alternative protein refers to protein foods made from raw materials that can replace traditional meat such as cow, pig, and chicken. In other words, alternative proteins are foods that artificially implement proteins and reproduce the taste and texture through plant extraction, animal cell culture, and microbial fermentation methods instead of traditionally used raw materials (Park, 2021). It mainly uses materials related to soy protein, such as wheat, soybeans, peanuts, peas, cotton seeds, rice, mold, lentils, chickpeas, and mung beans (Lee et al., 2021).

Recently, the alternative protein food market has been showing a growth rate of more than 15% every year since 2015 (Park et al., 2020). These changes can support environmentally friendly and sustainable food production methods and help combat climate change. In response to these consumer interests and demands, a response is needed to expand the domestic alternative protein food market.

2.2. Consumption Value

Consumption value is a value that is specified by applying the concept of general value to the area of consumption and is a term that is closely related to consumption among various values (Koo et al., 2015). Kwon and Chong (2023) defined consumption value as an abstract concept that serves as a criterion for purchasing products and selecting specific brands as a subjective desire to be satisfied through individual consumption behavior. Park and Lee (2021) defined consumption value as representing consumers' basic desires, a tool for expressing desires used for consumers' self-actualization, and a close relationship with the market and consumer choice behavior. In addition, Jung et al. (2013) defined it as a set of standards that express the basic desires that consumers want to achieve through consumption and that guide individuals' subjective thoughts and actions regarding consumption.

In this way, consumption value is closely related to choice behavior and represents individual beliefs according to the consumer's preferred consumption behavior style (Koong & Shin, 2014). In other words, consumption value is a value that becomes an individual's subjective criterion when choosing a product or service in a specific consumption situation among general values, which is the most important factor in a series of selection processes, and at the same time is the basis for identifying the fundamental motives that continue to affect consumption behavior (Jae & Jeon, 2007). These consumption values are an indicator that predicts consumer behavior and can identify the values that consumers consider important, which can be applied to various fields of marketing such as market segmentation and new product development (Kamakura & Mazzon, 1991). Therefore, based on previous research, this study defined the concept of consumption value as ‘a specific value related to consumption and an individual’s belief that serves as a standard when selecting a specific product according to

subjective desires.'

Meanwhile, the sub-factors of consumption value are structured differently depending on the researcher. According to Sheth et al. (1991), consumption value makes a choice based on the five values that consumers provide when choosing a product or service: functional value, social value, emotional value, situational value, and scarcity value. Holbrook (2005) studied consumption values by classifying them into economic values (efficiency, excellence), social values (status, respect), hedonic values (entertainment, aesthetics), and altruistic values (ethics, spirituality). However, looking at previous studies related to eco-friendly food among food consumption value studies, health value, ethical value, and ecological value are commonly used as important factors.

Therefore, based on previous research, this study aims to study the consumption value of alternative protein products by setting them as functional value, health-oriented value, ethical value, and ecological value.

2.2.1. Functional Value

Functional value is a value that pursues utilitarian rationality and places importance on functions such as product performance and quality (Sheth et al., 1991). This satisfies consumers' needs by providing practical factors related to products or services (Kim & Kim, 2011). In other words, this refers to functional and practical values related to the price and quality of the physical aspect (Jung et al., 2016).

2.2.2. Health-Oriented Value

Health-oriented values refer to individuals' beliefs about maintaining their health or the personal importance associated with health (Rosengard et al., 2001). This includes the importance of health, personal interest in health problems, and all determinants that can maintain or improve health (Gebhart et al., 2001).

2.2.3. Ethical Value

Ethical values are values that include both environmental and social issues (Hong & Song, 2008). This shows consumption behavior that practices social responsibility according to the individual consumer's moral beliefs (Huh & Kim, 2014). According to Lee and Kim (2020) study on the consumption value of vegetarian restaurants, ethical values were selected as the factor that has the greatest influence on personal consumption value in deciding and judging the choice of a specific product in a consumption situation. At this time, eco-friendliness, social contribution activities, workers' human rights, fairness in production and distribution, politics, and religion are classified as sub-factors of ethical values (Hong & Song, 2008).

2.2.4. Ecological Value

Ecological values are values that are interested in everything in the ecosystem and pursue environmental conservation thinking rather than human-centered thinking (Stern et al., 1993). According to Jo (2014) study, ecological values were found to have a significant impact on attitudes toward local food. This means that consumers' tendency to protect the environment and pursue sustainable food consumption affects their positive attitude toward local food and their purchase intention.

2.3. Self-Efficacy

Self-efficacy is a judgment of one's ability to organize and carry out a course of action to achieve a specific result (Bandura, 1977). In other words, self-efficacy refers to expectations or beliefs about an individual's ability to successfully organize and perform specific actions in any situation (Lee et al., 2021).

This self-efficacy is derived from achievement experiences, vicarious experiences, verbal persuasion, and emotional arousal. In addition, self-efficacy affects various consumer behaviors such as individual decision-making, goal setting, action execution, and satisfaction, and is applied to various fields such as psychology, sociology, kinesiology, public health, medicine, and nursing (Bandura, 1977). Therefore, in this study, based on previous research, the concept of self-efficacy was defined as 'self-expectation of the individual's ability to believe that the desired result can be achieved as much as expected by performing a series of actions to reach a specific goal.'

Meanwhile, a study by Park and Ku (2008) showed a significant correlation between consumption value and self-efficacy, and it was said that understanding the relationship between consumption value and self-efficacy has an important impact on establishing marketing strategies. Research like this shows that self-efficacy plays an important role in consumption.

Accordingly, this study aims to study the impact of the consumption value of alternative protein products on self-efficacy based on previous research.

2.4. Purchase Intention

Purchase intention is a concept that refers to a consumer's willingness to purchase a specific product (Wei & Li, 2023). Furthermore, this denotes the likelihood that beliefs or attitudes formed during the consumer decision-making process will lead to future behavior, indicating the probability of forming an indirect mediating role between attitudes and behaviors and predicting consumer purchasing behavior (Engel & Blackwell, 1982). In other words, purchase intention is a consumer's conscious plan that

expresses the intention to purchase a product or service or indicates the possibility that it will lead to actual action (Jeong & Kim, 2019). Therefore, in this study, based on existing research, the concept of purchase intention was defined as 'the consumer's willingness and possibility to purchase a specific product, service, brand, etc.'(Cha & Shin, 2021; Kim & Cha, 2022; Kwak & Cha, 2021; Kwak & Cha, 2022). Meanwhile, a study by Cha and Kim (2008) showed that consumption value had a significant impact on the purchase intention of health functional foods. In addition, a study by You and Ju (2013) showed that stronger self-efficacy leads to higher risk awareness and a greater influence on purchase intention, and a study by Li et al. (2018) found that self-efficacy had a significant impact on purchase intention in online shopping. These studies show that there is a significant connection between self-efficacy and purchase intention. Accordingly, based on previous research, this study will focus on the relationship between self-efficacy regarding the consumption value of alternative protein products and its influence on purchase intention.

3. Research Methods and Materials

3.1. Research Model

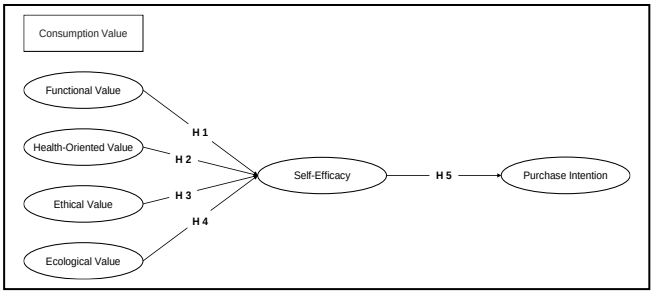

Figure 1: Research Model

This study set up a research model as shown in **Figure 1** based on previous research to identify the relationship between the consumption value (functional value, health-oriented value, ethical value, ecological value) of alternative protein products and self-efficacy and purchase intention.

3.2. Hypothesis Setting

In this study, the following hypothesis was established according to the research model in **Figure 1**.

H1: The functional value of alternative protein products will have a significant effect on self-efficacy.

H2: The health-oriented value of alternative protein products will have a significant effect on self-efficacy.

H3: The ethical value of alternative protein products will have a significant effect on self-efficacy.

H4: The ecological value of alternative protein products will have a significant effect on self-efficacy.

H5: Consumers' self-efficacy for alternative protein products will have a significant effect on purchase intention.

3.3. Data Collection and Analysis Methods

This study conducted a survey based on questionnaire items from existing studies, modified to suit the research purpose, to understand the relationship between the consumption value of alternative protein products, self-efficacy, and purchase intention. The survey was conducted from May 1, 2023, to July 10, 2023, and a total of 187 valid samples were used for analysis. The collected data were subjected to exploratory factor analysis using the SPSS 20.0 program for validity and reliability analysis, and confirmatory factor analysis and discriminant validity analysis were conducted using the AMOS 20.0 program for structural equation modeling (SEM). It was used to evaluate the overall fit of the model and interpret the influence relationships between overall constructs.

4. Results

4.1. Demographic Characteristics

The demographic characteristics of the 187 respondents used in this study are shown in **Table 1**.

Regarding gender, there were 50 men (26.7%) and 137 women (73.3%), with a slightly higher proportion of women. In terms of age, 138 people (73.8%) were in their 20s, accounting for the majority, followed by 15 people (8.0%) in their 30s, 20 people (10.7%) in their 40s, and 14 people (7.5%) in their 50s or older. Regarding marital status, 32 (17.1%) of the respondents answered that they were married, and 155 (82.9%) responded that they were single. In addition, regarding religion, 139 people (74.3%) were non-religious, followed by 26 Protestants (13.9%), 14 Catholics (7.5%), and 8 Buddhists (4.3%), with the highest proportion of non-religious respondents. As for the highest level of education, 122 people (65.2%) were enrolled in college (2 or 4 years), 38 people (20.3%) graduated from college (2 or 4 years), 11 people (5.9%) were enrolled in graduate school or higher, 11 people (5.9%) graduated from high school, and 16 people (8.6%) had a graduation degree or less. As for the type of occupation, 128 (68.4%) were students, indicating that most of the survey respondents were students, 42 were office workers (22.5%), 6 were self-employed (3.2%), 2 were housewives (1.1%), and 9 were other (4.8%). The average monthly income distribution revealed that 116 individuals (62.0%) had a monthly income of less than 1 million won, 34 individuals (18.2%) had a monthly income

between 1 and 2 million won, 13 individuals (7.0%) had a monthly income between 2 and 3 million won, 11 individuals (5.9%) had a monthly income between 3 and 4 million won, 7 individuals (3.7%) had a monthly income between 4 and 5 million won, and 6 individuals (3.2%) had a monthly income of 5 million won or more.

Table 1: Demographic Characteristics of the Sample

Variables		No. of Sample	Percentage (%)
Gender	Male	50	26.7
	Female	137	73.3
Age	20-29	138	73.8
	30-39	15	8.0
	40-49	20	10.7
	50+	14	7.5
Marriage	Married	32	17.1
	Single	155	82.9
Religion	Atheism	139	74.3
	Protestantism	26	13.9
	Catholicism	14	7.5
	Buddhism	8	4.3
	Etc.	0	0
Highest Level of Education	High School Diploma or Less	16	8.6
	Attending University	122	65.2
	Graduated from University	38	20.3
	Graduate School or Higher	11	5.9
Occupation	Student	128	68.4
	Employee	42	22.5
	Self-Employed	6	3.2
	Housewife	2	1.1
	Etc.	9	4.8
Average Monthly Income	Less than 1 Million Won	116	62.0
	Less than 1-2 Million Won	34	18.2
	Less than 2-3 Million Won	13	7.0
	Less than 3-4 Million Won	11	5.9
	Less than 4-5 Million Won	7	3.7
	More than 5 Million Won	6	3.2

4.2. Validity and Reliability Analysis

This study conducted an exploratory factor analysis to ensure the validity and reliability of the measurement variables used in data collection. As a factor extraction method, principal component analysis, which maximizes the information contained in the measurement items, was selected to derive constituent factors, and as a rotation method, Vari Max, a method of simplifying factors by maximizing the sum of the variance of the factor matrix columns, was used. Additionally, Cronbach's α value was extracted through reliability analysis. As a result, the values of the rotated component matrices shown in **Table 2** and **Table 3** were all measured to be above 0.6, showing that the variables represent each factor well. The total cumulative variance explanatory power was found to be 61.022% and 68.063%, respectively, and it is judged that there is validity between each factor. Furthermore, the Cronbach's α values were all above 0.7, showing relatively high consistency and reliability among variables, so it is interpreted that the survey instrument's concordance concerning consumption value, self-efficacy, and purchase intention of alternative protein products is good. Accordingly, this study secured the validity and reliability of the measurement variables used in the collection through exploratory factor analysis.

Next, confirmatory factor analysis was conducted using the AMOS 20.0 program to verify validity. As a result of the analysis, as shown in **Table 4**, the Chi-square value was 235.462, which was large compared to the sample size. However, looking at other indicators, the p-value was 0.000, which was lower than the significance level of 0.05, and NFI, RFI, IFI, TLI, and CFI values are all above 0.8, and the RMSEA value is below 0.08, so it is judged that the model explains the data well (Browne & Cudeck, 1993; Hu & Bentler, 1999; Tucker & Lewis, 1973). In conclusion, the structural equation model of this study was found to meet the validity criteria presented in previous studies overall, and the setting of the research model was judged to be appropriate. Furthermore, the average variance extracted values (AVE), which measure the variance of the components, are all above 0.5, showing that all variables reflect the components well. The CR values, which are measured by considering the correlation of related variables within the component, are all above 0.7, meeting the standards of CR above 0.6 and AVE above 0.5 proposed by Bagozzi and Yi (1988), so the reliability of the components is judged to be high.

In addition, the results of the discriminant validity analysis are shown in **Table 5**. Discriminant validity is judged to meet the standard if the square root of the AVE value, which is the average variance extracted value of each variable, exceeds the correlation value between the variables (Fornell & Larcker, 1981). As a result of the analysis, it was found that the diagonal value representing the variance of the components was the largest in the corresponding row and column. This means that there is an appropriate correlation between variables, and at the same time, each variable is conceptually separated and measured independently. In other words, all the measurement tools in this study stably secured discriminant validity.

Table 2: Exploratory Factor Analysis

	Variables			
	Functional Value	Health-Oriented Value	Ethical Value	Ecological Value
fv01	.807	.034	.283	.061
fv02	.751	.113	.267	.133

hv01	-.089	.748	.265	.084
hv02	-.011	.803	.197	.055
hv03	-.045	.808	.099	.090
hv04	.190	.668	.023	.053
ev01	.049	.026	.799	.143
ev02	.127	.219	.739	.080
ev03	.020	.127	.821	.179
ecv01	.051	.064	.200	.880
ecv02	-.073	.188	.147	.848
Variance (%): Total 61.022	12.317	17.414	15.470	15.822
Cronbach's Alpha	0.776	0.791	0.771	0.882

Table 3: Exploratory Factor Analysis

	Variables	
	Self-Efficacy	Purchase Intention
se01	.834	.297
se02	.791	.323
se03	.812	.331
pi01	.291	.798
pi02	.223	.848
pi03	.157	.791
pi04	.345	.796
Variance (%): Total 68.063	32.394	35.670
Cronbach's Alpha	0.887	0.875

Table 4: Confirmatory Factor Analysis

Variables	Measure	Standardized Regression Coefficient	CR	AVE
Functional Value	fv01	0.682	0.795	0.665
	fv02	0.930		
Health-Oriented Value	hv01	0.724	0.802	0.507
	hv02	0.768		
	hv03	0.771		
	hv04	0.565		
Ethical Value	ev01	0.715	0.783	0.549
	ev02	0.651		
	ev03	0.843		
Ecological Value	ecv01	0.898	0.883	0.791
	ecv02	0.881		
Self-Efficacy	se01	0.831	0.887	0.723
	se02	0.845		
	se03	0.875		
Purchase Intention	pi01	0.844	0.881	0.651
	pi02	0.845		
	pi03	0.699		
	pi04	0.831		
Chi-square=235.462(p=0.000, df=120), NFI=0.879, RFI=0.846, IFI=0.937, TLI=0.918, CFI=0.936, RMSEA=0.072				

Table 5: Discriminant Validity Analysis

	PI	FV	HV	EV	ECV	SE
PI	0.807					
FV	0.398	0.815				
HV	0.280	0.197	0.712			
EV	0.375	0.365	0.416	0.741		
ECV	0.716	0.255	0.272	0.411	0.890	
SE	0.679	0.195	0.216	0.374	0.826	0.851

4.3. Hypothesis Verification

The results of verification based on this research hypothesis are shown in **Table 6** and **Figure 2**. The goodness-of-fit indices of the research model were p=0.000, NFI=0.879, RFI=0.846, IFI=0.937, TLI=0.918, CFI=0.936, and RMSEA=0.072. First, among the sub-factors of H1, consumption value, the standardized path coefficient of the effect of functional value on self-efficacy was .010 and the C.R value was 0.122 (p>.05), showing no statistically significant effect. Therefore, H1 'Functional value will have a significant positive effect on self-efficacy' was rejected. Second, among the sub-factors of H2, consumption value, the standardized path coefficient of the impact of health-oriented value on self-efficacy was -.018, and the C.R value was -0.198 (p>.05), showing no statistically significant impact. Therefore, H2 'Health-oriented values will have a significant positive effect on self-efficacy' was rejected. Third, among the sub-factors of H3, consumption value, the standardized path coefficient of the effect of ethical values on self-efficacy was .056, and the C.R value was 0.721 (p>.05), showing no statistically significant effect. Therefore, H3 'Ethical values will have a significant positive effect on self-efficacy' was rejected. Fourth, among the sub-factors of H4, consumption value, the standardized path coefficient of the effect of ecological value on self-efficacy was .889 and the C.R value was 10.351 (p<.001), showing a statistically significant effect. Therefore, H4 'Ecological values will have a significant positive effect on self-efficacy.' was adopted. Fifth, the standardized path coefficient of H5, the effect of self-efficacy on purchase intention, was .675 and the C.R value was 9.186 (p<.001),

showing a statistically significant impact. Therefore, H5 ‘Self-efficacy will have a significant positive effect on purchase intention’ was adopted. This means that among the consumption values of alternative protein products, consumers' self-efficacy gained through ecological values affects purchase intention.

Table 6: Path Analysis

Hypothesis	Paths	Path Cofficient	t - value	p - value	Results
H1	FV → SE	0.010	0.122	0.903	Reject
H2	HV → SE	-0.018	-0.198	0.843	Reject
H3	EV → SE	0.056	0.721	0.471	Reject
H4	ECV → SE	0.889	10.351	***	Support
H5	SE → PI	0.675	9.186	***	Support

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

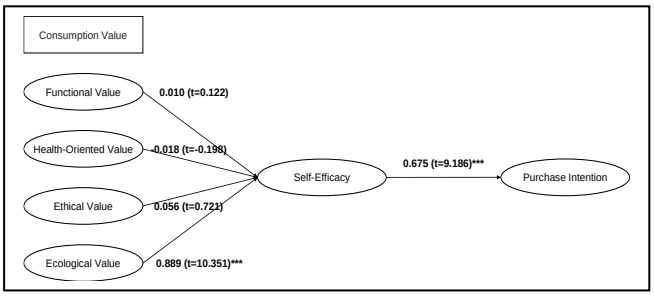

Figure 2: Research Model

5. Conclusions

This study analyzed the relationship between the consumption value of alternative protein products, self-efficacy, and purchase intention to provide useful information for establishing effective marketing strategies for alternative protein products and developing products that meet consumer needs. To this end, this study established a research model and hypothesis based on previous research. Based on this, exploratory factor analysis, confirmatory factor analysis, and discriminant validity analysis were conducted using the data obtained from the survey to verify the hypothesis and draw conclusions and implications.

The hypothesis testing results of this study are as follows. Hypothesis 4, which states that ‘ecological values will have a significant positive effect on self-efficacy’, was accepted. These results are partially consistent with the results of Jo (2014). This shows that the ecological value of alternative protein products is a factor that has a significant impact on consumers' self-efficacy. In addition, Hypothesis 5, which states that ‘self-efficacy will have a significant positive effect on purchase intention,’ was adopted. This indicates that consumers' self-efficacy for alternative protein products has a positive effect on purchase intention. These results are partially consistent with the results of Li et al. (2018). This shows that the self-efficacy of alternative protein products is a factor that greatly influences purchase intention.

In previous research, consumption values are known to increase consumers' self-efficacy, but in this study, functional values, health-oriented values, and ethical values, excluding ecological values, did not show a significant effect on self-efficacy. This is a different result than expected, and to understand it, we need to look at it from various perspectives. First, functional value is a value that emphasizes the actual functionality of a product or service, and the functional value of alternative protein products can be used to supplement protein intake or replace meals. However, these functional values may not be directly related to self-efficacy. In other words, the functionality of a product or service may not have a significant impact on an individual's sense of competence or confidence. According to Baudrillard (1998) consumer society theory, consumers focus on the value and meaning that a product symbolizes, rather than simply its actual function. Therefore, simply the functionality of a product may not have an effect on consumers' self-efficacy. In addition, health-oriented values are values that emphasize that consumers have a beneficial effect on health through products or services, and in the case of alternative protein products, many consumers expect that they will have a positive effect on health. However, these health-oriented values may not be directly linked to self-efficacy. In other words, even if a product or service has a beneficial effect on health, it may be independent of an individual's self-efficacy. According to Bandura (1977) consumer motivation theory, when choosing a product, consumers may attach greater importance to the desire for social recognition than to their physical needs. Therefore, it cannot be said that self-efficacy increases simply by choosing products that are beneficial to health. Lastly, ethical values are values that emphasize that consumers consider ethical aspects when choosing products or services. Consumers sometimes choose alternative protein products considering animal welfare, but these ethical values may not be directly related to an individual's self-efficacy. According to Bandura (1977) consumer motivation theory, consumers can be influenced by surrounding social or cultural factors

when choosing a product or service. Therefore, simply choosing ethical products may not increase self-efficacy. For these reasons, a direct relationship may not appear between functional values, health-oriented values, ethical values, and self-efficacy. This suggests that there is a complex interaction between consumers' values and self-efficacy in the alternative protein product market. Taking this diversity into account, there is a need to rethink our approach to product marketing strategies and development.

The implications presented based on the results of this study are as follows. First, it laid the theoretical foundation for the consumption value considered by consumers and, unlike other foods, proved that the ecological value of pursuing sustainable food consumption is the consumption value factor that has the greatest influence when purchasing alternative protein products, laying the foundation for future related research. Second, in the consumption value of alternative protein products, ecological value was found to have a significant effect on self-efficacy and purchase intention, but functional value, health-oriented value, and ethical value were found to not affect self-efficacy. Accordingly, it is necessary to prepare a marketing promotion plan that focuses on the fact that the positive impact on the environment by purchasing alternative protein products can provide consumers with expectations and satisfaction. Third, this study showed that functional values, health-oriented values, and ethical values had a different effect on self-efficacy than expected, so it is necessary to study other factors that can increase self-efficacy when consumers purchase alternative protein products. Lastly, it is meaningful in that it provides information by analyzing the demographic characteristics and consumption values of consumers who have purchased or plan to purchase alternative protein products.

The limitations and future tasks of this study are as follows. First, considering that consumption of alternative protein products is not active in Korea, this study targeted a nationwide sample of consumers and investigated the impact of the consumption value of alternative protein products on self-efficacy and purchase intention. Therefore, in future research, it is necessary to compare the differences with this study by targeting actual buyers who have experienced alternative protein products. Second, there were limitations in analyzing the consumption value of people who purchase alternative proteins for religious reasons due to the highest proportion of non-religious religions. In future studies, by separating consumers who purchase alternative protein products for religious reasons and consumers who purchase alternative protein products for non-religious reasons, comparative analysis will enable more precise research results and an in-depth understanding of consumption values that may vary depending on group differences. Lastly, since the definition of alternative protein and examples of alternative protein products were not provided in the questionnaire, it is believed that there is a possibility that respondents did not understand it accurately. Therefore, future research should be conducted after clearly defining it so that respondents are not confused.

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