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A Study on Service and Consumer Strategy using Specialized Stores of Agricultural Products

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ABSTRACT

Purpose: The purpose of this study is to investigate consumer satisfaction with agricultural specialty stores in Korea and to establish strategies for service and customers based on the results. A strategy to increase satisfaction was studied by analyzing customer satisfaction for agricultural specialty stores in the 6th industry based on demographic characteristics by year.

Design/methodology/approach: An offline survey was conducted from 2018 to 2020 for consumers who visited stores specializing in agricultural products related to the 6th industry. Difference analysis and analysis of variance were used for customer satisfaction by year.

Findings: In this study, the customer satisfaction who visited the agricultural specialty store was investigated, the characteristics were analyzed by year, and the reliability of the data was verified. In addition, a difference occurred in 2019 and 2020 compared to 2018 through analysis of differences by year. Changes in customer satisfaction by year-item were also found.

Research limitations/implications: Additional research is needed to investigate customer satisfaction by region and to analyze the characteristics and differences according to regions. In addition, it is necessary to establish a strategy to provide optimal products and services to consumers by examining the importance or awareness of each item.

Originality/value: It can help agriculture-related organizations and companies by providing various information to vitalize stores specializing in agricultural products based on the 6th industry and increase customer satisfaction.

Keywords: Stores of Agricultural Products, Service Strategy, Customer Strategy, 6th Industry, Specialized Stores

I. Introduction

The convergence industry is rapidly changing under the influence of innovative technological developments and environmental changes, and this phenomenon has been studied by Choi and Sim (2020). The development of new technologies and the convergence of industries

are proceeding rapidly in various fields, and the rural industry is also undergoing significant changes. It has a great impact on rural areas, and the appropriate response of the changing agricultural industry ecosystem is being discussed. In rural areas, agricultural products were grown as a primary industry, and this was linked to secondary industries and expanded to processing and production. In addition, it is growing into the 6th industry in connection with the 3rd industry, such as distribution, tourism, and service. Kim and An (2019) studied the policies and values of a new rural society, and various

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studies are being conducted to increase new values for rural development.

In the agricultural field, it is developing based on the 6th industry and new growth opportunities are occurring. There was a net function of creating new added value and expanding job opportunities through the 6th industry. There was a limit to selling agricultural products or processed products by entering various distributors or shopping malls. In particular, companies and farms related to the 6th industry were experiencing great difficulties in developing a market. So, there was a lot of thinking about how to solve this.

As an excellent example of the 6th industry, it changes the 1st industry by using eco-friendly cultivation techniques such as apples and tomatoes. In addition, it is developed into a secondary industry that provides differentiated products by processing organic apples or tomatoes into juice or jam. There are cases of revitalizing the tertiary industry by linking this with various experiences and Internet business sales.

Several studies have been conducted on the concept, method, and application of the 6th industry. Yoo (2013) investigated that the conceptualization and conceptualization of the 6th industry began in Japan in the 1990s. At first, it started as a simple primary industry that cultivates and produces agricultural products in agriculture, and later developed into a secondary industry that processes and transforms agricultural products. He mentioned that he had established a new form of 6th industrialization that expanded the scope to the tertiary industries such as distribution of agricultural products, services, and tourism. Choi (2014) mentioned that the 6th industry is a new concept that does not stop at the primary industry but expands the scope to the secondary industry and the tertiary industry. It is said that it is an activity that provides new high added value to agriculture and creates new opportunities for women and the elderly to find employment. And it was explained that the 6th industry is an organic combination composed of the multiplication of the primary industry, the secondary industry, and the tertiary industry.

In rural areas, the 6th industry is nurtured with agricultural products cultivation, processing, distribution, tourism, and services. Various efforts are being made to increase the new added value of rural areas. In addition,

the convergence industry in rural areas is also developing significantly. Among various activities, it sells products to consumers by using a specialty store for agricultural products. Various convergence industries of the secondary and tertiary industries are developing by utilizing specialized agricultural products stores. Through this, new markets are being discovered by launching new products and services and selling them directly to consumers.

The rural environment is also changing, and various related convergence industries are growing significantly. Various activities are being carried out to further develop rural areas, and communication with customers is carried out by using a specialty store for agricultural products. Based on the 6th industry, various core industries of the secondary industry and the tertiary industry are developing. Related institutions are launching services and products suitable for the 6th industry, and are continuously trying to discover new markets by combining them with various fields.

Several studies were reviewed on specialty stores and retailers for agricultural products related to the 6th industry. Seo and Lee (2007) mentioned agricultural specialty stores as a good opportunity for companies and operators related to the 6th industry to introduce various local specialties. The advantages of opening new markets and understanding the needs of consumers and the market environment were highlighted. It is said that it is necessary to develop new products and services and to activate sales. Park et al. (2016) mentioned that it is important to establish a store specializing in agricultural products in an area frequently visited by consumers to understand the needs of consumers for excellent products and services related to the 6th industry. Gho and Kim (2020) said that the use of experiential marketing and branding of agricultural specialty stores in the 6th industry can give consumers a good image. Brands and experiential marketing can increase sales of products and services related to the 6th industry and add value to rural areas.

The 6th Industry Support Center in Korea opened a market for processed products and various services of the 6th industry by operating a store specializing in agricultural products. Promotion, distribution and sales of the 6th industry are increasing to consumers by using specialized agricultural products stores. Various reviews

are underway to improve the competitiveness of rural areas. It is important to promote and sell products to consumers by using a store specializing in agricultural products based on the 6th industry. However, research on agricultural specialty stores based on the 6th industry has not been actively conducted yet. Therefore, it is time to conduct various studies on agricultural specialty stores that can increase the efficiency of the 6th industry.

The purpose of this study is to analyze the current situation by examining the customer satisfaction with the employees and products of the agricultural specialty stores. In addition, the purpose of this study is to investigate consumer satisfaction by year and age of consumers, and to understand changes in consumer satisfaction for stores specializing in agricultural products. Based on these analysis results, a strategy to increase customer satisfaction is derived. In the future, it can help rural businesses by providing a variety of information that can boost the revitalization of agricultural specialty stores and increase consumer satisfaction.

II. Literature Review

The 6th industry was originally started in Japan in 1990 and has developed from the primary industry directly produced in rural areas to the secondary industry that processes products. It was further developed into services such as sales, distribution, and tourism, and expanded into tertiary industries that provide services. The 6th industry refers to the overall activities of production and services as a comprehensive organism operating in rural areas.

The 6th industry was born and developed in various forms to solve the low added value, buyer-oriented distribution structure, and passive communication with consumers pointed out as chronic problems of existing agriculture. Lee and Koaki (2012) conducted a related study based on the case of the 6th industry in Japan, which started earlier than Korea. The organic fusion of primary, secondary, and tertiary industries was defined as the sixth industry. It is argued that this is a new concept of activity that expands employment opportunities for women and the

elderly. Jung (2009) presented as an example a good case related to the strengthening of the 6th industry in Japan. In order to strengthen the link between residents and businesses, the main actors of agriculture, measures to improve laws and systems were proposed.

Kim et al. (2013) studied the expansion of the 6th industry to various types of secondary industries, such as processed products and services, food, health food, and daily necessities. He also mentioned that it is an industry that creates synergy by converging with the tertiary industries, such as distribution and service, and sales and experience. Korea Rural Economic Research Institute (2014) investigated that the existing agriculture no longer stayed in the primary industry, but expanded its scope to secondary and tertiary industries. It was mentioned that it has the purpose of revitalizing the local economy and linking it with high added value of agriculture to quickly recover the relevant community. Yoo (2013) studied the purpose of carrying out the 6th industry in agriculture and emphasized the importance of improving the income of farmers and creating high added value in agriculture.

Yang et al. (2014) segregated villages related to the 6th industry by type. And using cross-analysis, various basic policy data necessary for project promotion and operation using local agricultural resources were calculated. Jang et al. (2014) mentioned that the 6th industry is a form in which production and manufacturing, sales and processing, distribution and service are vertically integrated. And it was argued that it is a business that creates a new high added value by creating an ecosystem of a new type of agricultural industry.

Lee (2015) studied the development direction of major policies related to the 6th industry in Korea, and suggested strategies to be followed and necessary matters in the implementation process. Park (2016) investigated that the Korean government enacted the Act on the Promotion and Support of Rural Convergence Industries in 2015. Based on this, it was mentioned that the foundation was laid for the 6th industry to proceed more actively. Park and Bae (2016) analyzed the results of a basic fact-finding survey on the 6th industry and emphasized the need to supplement the market development as the biggest difficulty for companies in the 6th industry. Park et al. (2014) analyzed

the effects of convergence of agriculture and income increase by type using the Heckman Selection Model. In addition, the promotion strategy and direction of the 6th industry were suggested. Jung and Choi (2019) verified that considering the mooring factor as well as the existing pull factor and push factor analysis has an important effect on the experience intention when conducting the experience of the 6th industry.

In the 6th industry, it has been operating general stores for a long time to promote or sell local specialties. However, stores and exhibition halls selling local products and specialties were not successful. Accordingly, various attempts were made to revitalize the 6th industry. Based on the 6th industry, the rural convergence industry proceeded, and various strategies and implementations were carried out to efficiently operate it. Among them, agricultural products specialized stores actually achieved results in rural development, and various studies were conducted on this.

In order to revitalize the 6th industry of agriculture in earnest, stores specializing in agricultural products are being used in each region. Various studies have been conducted on stores specializing in agricultural products, and Lee (2009) mentioned that stores specializing in agricultural products are stores operated with the goal of surveying the demand for new products or services, market surveys, advertising effects, and consumer surveys. In similar terms, it was mentioned that it is also expressed as a pilot shop or an antenna shop.

Chowdhury et al. (1998) suggested and studied six major factors of product assortment and product quality, convenience and atmosphere, and salesperson service and value for shopping centers. Frasquest et al. (2001) investigated the perceived value of a shopping center with 20 items, and studied four major factors by classifying them into accessibility, provision, efficiency, and atmosphere. Nemoto Masatsugu (2015) mentioned that it is important to play a social role by using the Japanese antenna shop as a space for local residents to communicate with each other.

Park et al. (2016) analyzed the customer characteristics and sales characteristics of products and services sold at specialty agricultural stores. Also, based on multiple regression analysis and the General Linear Mixed Model, the influence factors of store characteristics and customer attitudes, image and customer attitudes were studied. Mejia

and John (2002) mentioned that in order for antenna shops in the 6th industry to achieve meaningful results, it is important to first identify consumer behaviors and desires and establish a differentiated strategy by researching the antenna shop's target market. It was also said that the main factors of the agricultural specialty stores have a significant influence on the formation of consumer attitudes.

Biba et al. (2006) studied the major demographic characteristics of consumers on their store selection and loyalty, and argued that there is a great influence between them. Thang and Tan (2003) studied that the product assortment, store atmosphere, accessibility, and store service of specialty agricultural stores have a significant effect on consumers' preference for specialty stores.

Park et al. (2016) mentioned that it is necessary to find a market for excellent products in the region through the sale and promotion of special products in the 6th industrial region for stores specializing in agricultural products. And based on the survey on consumers' preferences and reactions, it was mentioned that the store is operated in an area with a lot of consumer visits. Lee (2016) mentioned the need for a strategy that strengthens active marketing for stores specializing in agricultural products in the 6th industry and allows consumers to visit frequently.

It is very important to identify the characteristics related to customer satisfaction. It is necessary to understand what products and services are necessary to provide according to the various types and needs of consumers. There are various examples of research on consumer strategies to increase customer satisfaction and for this.

Park (2018) predicted that the senior market among various consumer groups is attractive and provides important opportunities for many companies. We studied what senior consumers valued as important in product or service quality, salesperson, store, etc. In this study, relationship quality with satisfaction, trust, and commitment was used, and the difference between emotional and computational commitment was utilized. As a result of this study, it was studied that the quality of senior consumers and service providers has a great influence on store sales. Jung and Park (2020) studied relationship satisfaction according to various customer styles and contact methods. It was found that customers preferred personal contact to inhuman contact. Therefore, it was noted that it is important to

tailor customer segmentation criteria and guidelines to increase effectiveness in customer relationships in the service sector. Park et al. (2020) mentioned that consumer satisfaction, visit motive, and behavioral intention were related to each other by studying the case of grape festivals in rural areas in Korea. In addition, he said that additional research is needed because various visit motives affect recommendation intention and revisit.

Tran and Vu (2019) studied e-service quality, e-trust, and e-customer satisfaction as key factors for the success of e-business. A model of theoretical research by structural equation modeling was used. This study found the positive effect of e-service quality on behavioral intentions through e-trust and e-customer satisfaction. Xin and Choi (2020) investigated the effect of employee service attitude on service quality, and investigated the relationship between employee service attitude, service quality, customer satisfaction, and loyalty. As a result, it was investigated that emotional intelligence and role clarity have a significant effect on service quality and customer satisfaction. And it was analyzed that service quality and customer satisfaction had a significant effect on customer loyalty.

Several studies have been conducted to analyze the 6th industry and consumers. In addition, it is necessary to study the service strategy by analyzing the detailed satisfaction of consumers who use the specialty stores for agricultural products in the 6th industry.

III. Research Method

In this study, a survey was conducted targeting consumers who visited Korean agricultural specialty stores. Through the survey, it was attempted to understand the preferences and reactions of consumers based on the satisfaction of consumers using specialized agricultural products stores. It was carried out to give a positive ripple effect to the local economy related to agriculture by activating the agricultural products specialized store, which is the main activity place of the 6th industry.

The survey was conducted as an offline survey by selecting two investigators. The survey procedure and method were educated, and consumers who visited a specialized agricultural product store were randomly selected and conducted every year. The main points of this survey are summarized in Table 1, and the satisfaction of consumers who visit stores specializing in agricultural products was surveyed on a 5-point scale. Demographic factors such as basic age were taken into consideration, and consumer satisfaction by year was intensively studied. Statistical analysis used in this study was performed using SPSS version 21.

In this study, several hypotheses are needed to analyze the satisfaction of consumers who use agricultural specialty stores. First of all, it is important to check whether there is a difference in customer satisfaction by year (2018, 2019, 2020). Stores specializing in agricultural products have been making efforts to increase customer satisfaction, and it is necessary to check whether these efforts are effective.

Table 1. Key points of the survey

Contents	
Number of samples (Survey period)	175 (Y2018)
	186 (Y2019)
	165 (Y2020)
Survey method	Offline Survey
Survey target	Consumers using artificial intelligence speakers in Korea
Measure	5 point scale
Gender	Male, Female
Occupation	Students, Office workers, Housewives, Self-employed, and Others
Age	10's, 20's, 30's, 40's, 50's, 60's or older

Therefore, it is necessary to test the hypothesis whether there is a difference and improvement in customer satisfaction by year.

Hypothesis testing is needed to determine whether consumers' satisfaction differs by age, occupation, and gender as major demographic characteristics. In stores specializing in agricultural products, it is important to understand the needs of consumers according to the characteristics of consumers by gender, occupation, and age. Based on the analyzed results, it is possible to establish an appropriate consumer strategy according to the characteristics of consumers by gender, occupation, and age. Therefore, it is necessary to test the hypothesis whether there is a difference in the satisfaction of consumers by gender, occupation, and age. Therefore, an alternative hypothesis was established as follows.

Hypothesis 1: The alternative hypothesis is that 'there is a difference in satisfaction among consumer groups by year who visited a specialty store for agricultural products related to the 6th industry'.

Hypothesis 2: The alternative hypothesis is that 'there is a difference in satisfaction between the gender groups of consumers who visit a specialty store for agricultural products related to the 6th industry'.

Hypothesis 3: The alternative hypothesis is that 'there is a difference in satisfaction among consumer groups by occupation who visited a specialty store for agricultural products related to the 6th industry'.

Hypothesis 4: The alternative hypothesis is that 'there is a difference in satisfaction among consumers by age group who visited a specialty store for agricultural products related to the 6th industry'.

IV. Results

A. Reliability analysis

Reliability analysis was performed on the data used in this survey. Reliability refers to consistency when measured variables are different. It means the variance of the values evaluated when repeatedly measuring the same concept several times. In this regard, Parasuraman et al. (1988) mentioned that reliability includes concepts such as predictability, accuracy, and consistency of measurement. It refers to the variance of values that appear when the same concept is repeatedly measured several times, and it is defined as the probability that the same value can appear.

The Cronbach alpha coefficient is often used to check the internal consistency of various items. The Cronbach alpha coefficient is calculated to be large when the correlation between variables is high and the difference in variance for each item is small. In general, the Cronbach alpha coefficient value exists between 0 and 1, and when the Cronbach alpha coefficient value is 0.6 or more, the reliability is evaluated as relatively high.

In this survey, customer satisfaction was surveyed with 10 items over 3 years from 2018 to 2020. And to check the reliability of this, the Cronbach alpha value was calculated. Table 2 summarizes the annual results for the Cronbach alpha value. The Cronbach alpha value for 10 items for item-specific reliability in 2018 was 0.932. The Cronbach alpha value for 2019 was 0.881, and the Cronbach alpha value for 2020 was 0.903. It was confirmed that the Cronbach alpha value was close to 1 and the reliability was high. When each item for 2018, 2019, and 2020 was deleted, the Cronbach alpha value was also 0.8 or higher. Reliability was also high for each item, and it was found that there was no item to be deleted out of 10 items.

Table 2. Results of year-item reliability analysis

Year	Reliability statistics by year	
	Number of items	Cronbach's Alpha Value
2018	10	.932
2019	10	.881
2020	10	.903

Table 2. Continued

		Total Statistics by Year and Item					
		Y2018		Y2019		Y2020	
Questionnaire		Scale mean if item is deleted	Cronbach alpha value if item is deleted	Scale mean if item is deleted	Cronbach alpha value if item is deleted	Scale mean if item is deleted	Cronbach alpha value if item is deleted
Item1	Easy to find store location	32.24	.941	36.53	.904	36.72	.929
Item2	Pleasant and clean store	31.82	.925	35.75	.876	36.04	.889
Item3	friendly staff	31.68	.926	35.65	.859	35.87	.891
Item4	Staff respond quickly to customer needs	31.71	.920	35.63	.862	35.85	.890
Item5	variety of products	32.01	.926	36.01	.865	36.21	.896
Item6	Reasonable product price	32.18	.927	36.18	.866	36.35	.892
Item7	Good arrangement and display of products	31.92	.923	35.80	.861	36.07	.885
Item8	Worth repurchasing and revisiting	31.88	.920	35.74	.861	36.02	.887
Item9	Willing to recommend to people around	31.92	.923	35.74	.870	35.98	.885
Item10	Overall satisfaction	31.88	.920	35.77	.873	35.93	.887

B. Satisfaction analysis by year

Reliability This survey was conducted for stores specializing in agricultural products in Korea and was conducted in an offline method for consumers who visited specialized stores. It was conducted every year from 2018 to 2020, and the results of related customer satisfaction are shown in Table 3. The number of samples was 200 people, and valid data were selected from among them, and 174 people were used in 2018, 186 people in 2019, and 165 people in 2020 by year. The survey was conducted to investigate customer satisfaction for 10 items, and the average of each

item's satisfaction was derived by year.

As a result of the survey, it can be seen that overall customer satisfaction was higher in 2019 than in 2018, and slightly higher in 2020 than in 2019, indicating that it has increased year by year. In addition, customer satisfaction with the employees of the agricultural specialty stores in items 3 and 4 was higher than in other items. Relatively, customer satisfaction with the location of the store related to item 1 was low.

C. Difference analysis

This survey surveyed the satisfaction of consumers who visit agricultural specialty stores, and analyzed whether there were differences by year. ANOVA(ANalysis Of VAriance) was used to verify the significance of whether there was a mean difference between the three groups in 2018, 2019, and 2020 by year. Since there is only one independent variable by year, one-way ANOVA was used for analysis.

It is necessary to check whether there is a difference in the satisfaction of consumers using stores specializing in agricultural products related to the 6th industry by year in 2018, 2019, and 2020. A basic hypothesis was established to test whether there was a difference by year. It was necessary to test the hypothesis on whether there

Table 3. Results of Satisfaction Analysis by Year-Item

	Y2018	Y2019	Y2020
Item1	3.23	3.33	3.40
Item2	3.63	4.12	4.08
Item3	3.78	4.22	4.24
Item4	3.75	4.24	4.27
Item5	3.45	3.86	3.90
Item6	3.29	3.68	3.76
Item7	3.55	4.06	4.04
Item8	3.59	4.12	4.09
Item9	3.55	4.13	4.14
Item10	3.59	4.10	4.19
Average	3.54	3.99	4.01

was a difference in consumer satisfaction by year, so the null and alternative hypotheses were established as follows.

The null hypothesis is that ‘there is no difference in satisfaction among consumer groups by year who visited a specialty store for agricultural products related to the 6th industry’. The alternative hypothesis is that ‘there is a difference in satisfaction among consumer groups by year who visited a specialty store for agricultural products related to the 6th industry’. And the significance level used was 0.05, and the analysis results are shown in Table 4.

Table 4. Results of difference analysis by year-satisfaction

	F	Significance Probability
Item1	.984	.375
Item2	17.971	.000
Item3	17.267	.000
Item4	21.965	.000
Item5	12.141	.000
Item6	13.559	.000
Item7	23.294	.000
Item8	23.464	.000
Item9	30.478	.000
Item10	30.445	.000

Among the 10 items, except for item 1, the remaining significance probabilities were less than 0.05. For the nine items, it was judged that ‘there is an average difference between the groups of consumers by year who visited stores specializing in agricultural products related to the 6th industry’.

A post-hoc test was conducted using Fisher's Least Significant Difference test in order to check which group showed differences in customer satisfaction in the nine questionnaires that showed differences by year. The related contents are summarized in Table 5, and this result was judged to be significant at the level of 0.05 with the difference between the means.

As a result of the post-hoc test, in items 2 to 10, there was a difference in consumer satisfaction by year in 2018 and 2019, and it was found that there was a difference in both 2018 and 2020. However, there is no difference between 2019 and 2020. The results for this are shown in Table 5. It can be seen that the level of satisfaction in 2019 and 2020 is higher for each item compared to 2018. It can be seen that the item 1, 'Easy to find the location of the store', shows consistently low satisfaction compared to other items.

Table 5. Multiple Comparison of Customer Satisfaction by Year

	Y2020	Significance Probability	Y2019	Significance Probability	Y2018	Significance Probability
Item2	Y2019	.659	Y2020	.659	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000
Item3	Y2019	.806	Y2020	.806	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000
Item4	Y2019	.726	Y2020	.726	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000
Item5	Y2019	.669	Y2020	.669	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000
Item6	Y2019	.406	Y2020	.406	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000
Item7	Y2019	.797	Y2020	.797	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000
Item8	Y2019	.705	Y2020	.705	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000
Item9	Y2019	.904	Y2020	.904	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000
Item10	Y2019	.271	Y2020	.271	Y2020	.000
	Y2018	.000	Y2018	.000	Y2019	.000

D. Analysis by gender in 2020

This Analysis was conducted according to the demographic items surveyed during the survey by gender, occupation, and age. As of 2020, the number of samples was 200 people, and valid data were used from 165 of them. The questionnaire items were divided into contents related to stores, employees, and products. First, the items related to the store consisted of the main contents on location and cleanliness, and the items about the staff consisted of the main contents about prompt response to customer requests and kindness. Product related items consisted of price and variety, arrangement and display, and overall satisfaction, repurchase, and

recommendation intention. First, gender was divided into male and female, and 47 men (28.5%) responded to the questionnaire and 118 women (71.5%) were identified. The results are shown in Table 6.

Difference analysis was conducted on the gender of consumers visiting a store specializing in agricultural products in the 6th industry. Gender consists of two groups, male and female, and is analyzed using the Two Independent Sample t-test to verify whether there is a mean difference. Hypotheses were established to confirm whether there was an average difference according to gender. The null hypothesis is that 'there is no difference in satisfaction between the gender groups of consumers who visit a specialty store for agricultural products related to the 6th industry'. The alternative hypothesis is that 'there is a difference in satisfaction between the gender groups of consumers who visit a specialty store for agricultural products related to the 6th industry'. The results of analysis using SPSS version 21 are shown in Table 7.

The significance level used in the analysis was set

Table 6. Results of Survey Persons by Gender

	Frequency (percentage)
Male	47 (28.5%)
Female	118 (71.5%)
Total	165 (100.0%)

Table 7. Results of Difference analysis by Gender

		t	Degrees of Freedom	Significance Probability (both sides)
Item1	Equal variance assumed	-.497	163	.620
	Equal variance not assumed	-.517	92.169	.607
Item2	Equal variance assumed	.400	163	.690
	Equal variance not assumed	.438	104.162	.662
Item3	Equal variance assumed	1.098	163	.274
	Equal variance not assumed	1.129	89.894	.262
Item4	Equal variance assumed	-1.214	163	.227
	Equal variance not assumed	-1.248	89.932	.215
Item5	Equal variance assumed	.704	163	.483
	Equal variance not assumed	.680	78.969	.499
Item6	Equal variance assumed	1.013	163	.313
	Equal variance not assumed	1.047	90.853	.298
Item7	Equal variance assumed	-1.125	163	.262
	Equal variance not assumed	-1.196	96.769	.235
Item8	Equal variance assumed	-.879	163	.381
	Equal variance not assumed	-.925	94.717	.357
Item9	Equal variance assumed	-1.334	163	.184
	Equal variance not assumed	-1.369	89.451	.175
Item10	Equal variance assumed	-.796	163	.427
	Equal variance not assumed	-.783	81.761	.436

to 0.05. The significance probability result of the t-test for the equality of the means was greater than 0.05 for all 10 items. Therefore, the null hypothesis was adopted and it was analyzed that there was no difference in consumer satisfaction by gender. Accordingly, it was found that there was no difference between males and females regarding consumer satisfaction surveyed in 2020.

E. Analysis by occupation in 2020

A difference analysis was conducted by occupation of consumers visiting stores specializing in agricultural products in the 6th industry. By occupation, students, office workers, housewives, entrepreneur, and others were classified. The respondents to this questionnaire were divided by occupation. Among the five occupational groups, students accounted for 7.3% and office workers 40.6%, housewives 36.4%, entrepreneurs 10.9%, and others 4.8%, respectively. The results are shown in Table 8.

Occupational groups were divided into five major groups, so it was necessary to verify whether there was an average difference between three or more groups. Difference analysis is analyzed using analysis of variance, which is useful when verifying the difference in the mean between three or more groups. Since the independent variable is one variable, occupation, one-way ANOVA was used. The null hypothesis is that 'there is no difference in satisfaction among consumer groups by occupation who visited a specialty store for agricultural products related to the 6th industry'. The alternative hypothesis is that 'there is a difference in satisfaction among consumer groups by occupation who visited a specialty store for agricultural products related to the 6th industry'. The analysis results for this are shown in Table 9.

The significance level used in this analysis was set to 0.05. As a result of the analysis, the significance probability was found to be over 0.05 in all 10 items. Therefore, it was judged that the alternative hypothesis, 'There is no average difference in satisfaction with the occupational groups of consumers visiting stores specializing in agricultural products'. As a result, it was found that there was no difference in satisfaction according to occupations classified as students, office workers, housewives, entrepreneur, and others.

F. Analysis by age in 2020

An additional survey was conducted by dividing the results of 2020 consumer satisfaction by age. Valid data of 165 people were used, and the ratio by age was 3.6% in teens, 7.3% in 20s, 19.4% in 30s, 34.5% in 40s, 20.6% in 50s, and 14.5% in over 60s. The results are shown in Table 10.

Table 8. Results of Survey Persons by Occupation

	Frequency (percentage)
Students	12 (7.3%)
Office Workers	67 (40.6%)
Housewives	60 (36.4%)
Entrepreneur	18 (10.9%)
Others	8 (4.8%)
Total	165 (100.0%)

Table 9. Results of Difference analysis by Occupation

	F	Significance Probability
Item1	.015	1.000
Item2	1.184	.320
Item3	1.427	.227
Item4	1.027	.395
Item5	2.017	.095
Item6	.658	.622
Item7	.239	.916
Item8	2.122	.081
Item9	1.046	.386
Item10	1.119	.350

Table 10. Results of Survey Persons by Occupation

	Frequency (percentage)
10's	6 (3.6%)
20's	12 (7.3%)
30's	32 (19.4%)
40's	57 (34.5%)
50's	34 (20.6%)
60's or more	24 (14.5%)
Total	165 (100.0%)

A difference analysis was conducted by age of consumers who visited stores specializing in agricultural products related to the 6th industry. It was necessary to verify whether there was an average difference between three or more groups of 10's, 20's, 30's, 40's, 50's, and 60's or more by age. Therefore, when verifying the significance of this, the analysis of variance, which is generally used, was used for analysis. And since the independent variable is age, one-way ANOVA was used. The null hypothesis is 'there is no difference in satisfaction among consumers by age group who visited a specialty store for agricultural products related to the 6th industry', and the alternative hypothesis 'there is a difference in satisfaction among consumers by age group who visited a specialty store for agricultural products related to the 6th industry'. The analysis results for this are shown in Table 11.

Table 11. Results of Difference analysis by Age

	F	Significance Probability
Item1	2.308	.047
Item2	1.809	.114
Item3	2.468	.035
Item4	2.064	.073
Item5	1.583	.168
Item6	1.447	.210
Item7	.763	.578
Item8	1.793	.117
Item9	2.898	.016
Item10	1.736	.129

The significance level used was 0.05, and the significance probability was less than 0.05 in 3 of 10 items (Item 1, Item 3, Item 9). For the three items, it was judged that 'there is an average difference between the age groups of consumers who visit stores specializing in agricultural products related to the 6th industry'. The average of satisfaction scores by age of consumers who visited stores specializing in agricultural products related to the 6th industry was divided into 10 detailed items and shown in Table 12.

In item 1, item 3, and item 9, the difference in satisfaction by age was significant. In item 1, the satisfaction level of those in their 20s was the lowest, and those in their 60s and over were the highest. And it can be seen that the satisfaction level of those in their 30s or younger was lower than those in their 40s or older. In item 3, the satisfaction of those in their 40s was the lowest, and those in their 20s were the highest, showing higher satisfaction on average compared to other items. In item 9, the lowest level of satisfaction was found in the teens and the highest in the 20s.

V. Conclusion

A survey was conducted targeting consumers who visited a store specializing in agricultural products in the 6th industry in Korea, and satisfaction analysis

Table 12. Results of Satisfaction Analysis by Age

	10's	20's	30's	40's	50's	60's or more
Item1	3.17	2.92	3.13	3.32	3.71	3.83
Item2	3.83	4.58	4.06	3.95	4.18	4.08
Item3	4.17	4.75	4.28	4.07	4.21	4.42
Item4	4.00	4.75	4.25	4.16	4.32	4.29
Item5	4.17	4.25	3.78	3.79	3.82	4.21
Item6	3.67	4.17	3.63	3.70	3.68	4.04
Item7	4.00	4.25	4.06	3.96	3.94	4.25
Item8	3.50	4.50	4.03	4.09	4.03	4.21
Item9	3.67	4.67	3.97	4.07	4.18	4.33
Item10	4.17	4.67	4.19	4.14	4.03	4.29

was conducted using 10 questionnaire items. The collected data were analyzed for characteristics by year (2018, 2019, and 2020), and reliability was verified based on the data. The following conclusions and implications were drawn through this study.

First, as a result of the analysis of differences by year, there was a difference in 2019 and 2020 compared to 2018, but there was no significant difference in satisfaction in 2019 and 2020. The reliability of the data collected for demographic analysis was checked. For a detailed study, an analysis of differences by gender, age, and occupation was conducted. Some meaningful results were obtained for 10 items of analysis by age.

Second, satisfaction increased in 9 items in 2019 and 2020 compared to 2018. And since the level of satisfaction remains similar in 2020 compared to 2019, it is necessary to improve the satisfaction level by improving the complaints and difficulties of consumers visiting the antenna shop. In particular, the satisfaction with item 1 (the location of the store is easy to find), item 5 (the variety of products), and item 6 (the price of the product is reasonable) was lower than that of other items. it is important to establish and implement a strategy that can improve this and increase customer satisfaction.

Third, the items that differed by age were related to store location and staff friendliness, and differences in satisfaction were found according to the age-specific environment and coping attitudes. Therefore, further detailed analysis is required. In the case of items that differ by age, it is necessary to review the reason and characteristics of the difference by age through additional investigation. Based on this, it is necessary to derive supplementary items and improve them. In the analysis results of the survey, there was no difference in satisfaction according to gender and occupation. In the future, it is necessary to supplement the questionnaire items for stores specializing in agricultural products related to the 6th industry in more detail in addition to employees, stores, and products. It is also necessary to add details for each item.

Finally, it is necessary to improve the survey items and methods to better understand the needs and responses of consumers who visit stores specializing in agricultural products. In this survey, no significant results were drawn

for consumers by gender and occupation. It is important to verify the survey method and derive survey items that can reflect consumer needs in the future. It is necessary to supplement the survey questions to give a clear understanding of consumer satisfaction. It is also important to reflect consumer needs through consumer satisfaction and awareness surveys in consideration of online surveys that reflect recent trends.

This study surveyed consumers' satisfaction with a survey of stores specializing in agricultural products related to the 6th industry in Korea and analyzed whether there was any difference by year. If the survey questions and methods are improved and applied based on the analyzed results, the satisfaction of consumers visiting the agricultural specialty stores will increase. In addition, it will help to establish improvement plans and strategies for store locations, staff, and products in stores specializing in agricultural products to increase consumer satisfaction.

In the future, it is necessary to expand the number of stores nationwide to investigate the satisfaction of consumers who visit stores specializing in agricultural products in Korea, to compare them by region, and to find and analyze strengths and weaknesses. In addition, it is necessary to conduct a consumer satisfaction survey using the improved survey questions and methods and to verify whether this leads to an increase in satisfaction. In addition, it is necessary to establish a strategy to provide optimal products and services to consumers through additional analysis by investigating not only satisfaction but also importance and recognition.

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