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Predictive models of intent to repurchase based on customer data

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Abstract: As the business environment becomes ever more complex, predicting future buying patterns has become increasingly important. Moreover, there has been growth in the number of consumers focusing on health and self-care given rapid societal and economic changes. This shift is leading to heightened interest in athleisure wear and an increase in sales volume in this domain. It is accordingly necessary for companies in this field to establish marketing strategies based on predicting consumers' future purchases to maintain continuous growth and competitiveness. This paper surveyed 400 consumers who purchased athleisure wear and established a predictive model for consumer buying behavior using Multivariate Discriminant Analysis. This paper found that a brand's authenticity and the purchaser's involvement in sports were significant factors prediction customers' repurchase behavior. Companies should accordingly engage in authentic business practices and consider clothing designs and marketing strategies that can connect consumers' daily lives with their sports activities.

Keywords: *Authenticity, Intention to repurchase, Multivariate discriminant analysis. Sports involvement.*

1. Introduction

Modern people value their personal lives above their work, and their lifestyles are accordingly gradually changing towards achieving better health via exercise.

Such changes are related to various societal and economic shifts and are particularly evident in consumers' focus on health and self-care. Furthermore, there has been an increase in the demand for comfortable clothing suitable for various activities as more people seek to enjoy sports in their daily lives while also being comfortable. Additionally, lifestyles that involve a variety of sports and leisure activities are becoming more widespread as economic growth leads to material abundance and improved living conditions [1].

As a result of these lifestyle changes, athleisure clothing has experienced an uptick in sales in recent years [2]. Athleisure, a portmanteau of 'athletic' and 'leisure,' refers to a hybrid style of clothing that combines the typical style worn for exercise with styles suitable for everyday settings such as work and school [1]. It is defined as clothing that is not only wearable for sports but also stylish and attractive enough for other activities.

Fashion brands that previously did not sell sportswear have started entering the athleisure wear market [3]. Moreover, as sportswear designed for exercise emphasizes functionality and comfort and becomes a fashion trend suitable for everyday wear, consumer interest in such clothing has also begun to increase [4]. Considering these societal trends, the athleisure market is expected to continue its steady growth. In 2022, the global athleisure market was valued at $2.0 billion and is expected to reach $3.2 billion by 2032 [2]. That expected growth, which corresponds to a compound annual growth rate (CAGR) of 5.2%, is largely driven by the increasingly popularity of health and wellness trends worldwide [2].

Particularly in the Asia-Pacific region, the emergence of major market players is accelerating the growth of the athleisure industry [5]. Additionally, women are playing a significant role in the

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athleisure market[5]. Because, women make up a large portion of the consumer base for athleisure products. Their preferences and spending habits significantly shape market trends.

Furthermore, athleisure for infants and adolescents is gaining market share, with an expected CAGR of 9.8% between 2023 and 2030 [5].

However, maintaining sustainable growth and competitiveness in this market requires a deep understanding of what consumers prefer when repurchasing athleisure wear. That necessitates closely monitoring shifts in consumer trends and continuously improving products and services. However, there has been limited research about trends related to athleisure wear. It is important, for example, to analyze customers' intentions to repurchase and to identify potential customer groups that are likely to make a future purchase. In summary, it is worth investigating the differences between customer groups in terms of variables that influence the intention to repurchase.

This paper has developed a customer purchase activity prediction model to analyze the differences between customer groups and to predict customers' repurchased. This paper relied on statistical techniques based on customer data to explore the relationships between variables and identify differences between groups. Our approach enables businesses to make more effective decisions and achieve strategic objectives by providing insights into customer behavior and preferences.

This paper focused on the following two research questions. What are consumers' requirements for sustainable growth in the athleisure apparel market? What factors influence consumers' interest in repurchasing athleisure apparel? These questions were designed to better understand consumers' mindsets and preferences that drive the athleisure market, and this paper sought to identify key elements that brands should focus on to sustain growth and encourage repurchases.

2. Literature Review

2.1. Benefit Sought

Benefit sought refers to the subjective needs or desires that a consumer feels in relation to the attributes or services of a specific product; it denotes the subjective rewards or positive outcomes expected from product use [6]; consumers have a tendency to purchase products based on the ultimate advantages provided by these benefits, rather than the product's specific attributes [7]. Engel et al. (1990) investigated how consumers' psychological characteristics influence their benefit-seeking behaviors [8]. Benefit sought can be elucidated by focusing on decision-making related to product or store choice, for example. Markets can also be segmented based on the benefits consumers seek from products or services, which can in turn allow marketers to identify unmet consumer needs and measure consumers' perceptions of various products. Jenkins and Dickey (1976) divided benefit sought into two dimensions: appearance and practicality [9]; Peter and Olson (1987) studied this concept in terms of functional, aesthetic, and social benefits [6]. Benefit sought is one factor that can predict and in turn dictate consumer purchasing [10].

2.2. Authenticity

In the current competitive business landscape, the quality of product technology and services has become increasingly standardized. Therefore, perceived authenticity throughout the entire customer experience process is important for differentiated competitiveness [11]. Snyder and Lopez (2009) defined authenticity as "the alignment of one's inner state with their behavior" and argued that it includes two elements: self-awareness and self-regulation [12].

2.3. Switching Cost

Switching costs refer to the expenses incurred when changing from one service provider to another [13]. This concept, which impacts consumers' switching behaviors, primarily evolved from theoretical ideas in the marketing industry related to the relationship between buyers and sellers, customers and service vendors or providers, and distribution channels [14]. Furthermore, switching costs include not

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only measurable monetary and economic costs but also psychological costs associated with uncertainty that may arise in transactions [15].

2.4. Ethical Consumption Awareness

An ethical consumer can be defined as someone who considers the public consequences of their private consumption or exercises their purchasing power for social reform and service [16]. Such a consumer is influenced by environmental or ethical considerations when choosing products or services [17]. As consumers become more conscious of the impacts of their purchases, they become increasingly aware of the environmental and societal repercussions of their everyday consumption behaviors. This growing awareness in turn encourages them to purchase products from companies that use environmentally friendly materials, rather than products that harm the environment [18].

2.5. Sports Involvement

In the context of sports, involvement refers to the degree of attachment and desire to continue participating in sports activities; involvement can lead to deep immersion in such activities [19]. It also signifies the optimal psychological state for continual participation in sports and represents a commitment to complete immersion. Higher involvement in sports can lead to quantitatively and qualitatively positive outcomes in performance [20]. This concept highlights the importance of emotional and cognitive engagement in sports participation.

2.6. Intention to Repurchase

Customers' intention to repurchase has been the topic of many research studies. Henkel et al. (2006) concluded that satisfied customers have increased service usage levels and increased future usage intentions [21]. Repurchasing behavior—defined as a consumer's actual behavior resulting in the purchase of the same product or service on more than one occasion—and the factors that influence it have been investigated by many scholars [22]. The majority of consumers' purchases are repeat purchases and customers often buy similar products repeatedly from similar sellers [23].

3. Research Methodology

3.1. Discriminant Analysis

As the business environment becomes increasingly complex, predicting future buying patterns has become ever more important. Traditionally, businesses have relied on subjective judgment based on experience and knowledge to forecast the future. However, given advancements in data collection and analysis techniques, focus has shifted to developing models using historical data and using those models to predict future trends. In general, objective data-based prediction models are composed of dependent variables (which are to be predicted) and independent variables (which influence the dependent variables) [24]. However, the choice of models varies depending on the characteristics of the data being considered. In particular, predicting customer churn, loan delinquency, or voting choices, for example, is not typically done using standard regression analysis [24]. For cases in which the dependent variable is a categorical qualitative variable, discriminant analysis, a representative statistical analysis method, is often used [24, 25]. This method makes it possible to classify customer intention to repurchase into distinct categories based on the characteristics and patterns of the data.

Discriminant analysis is commonly used to develop models for predicting group membership [24, 25, 26]. It involves using a set of variables that represent the characteristics of the observed subjects to predict their group membership through a linear discriminant function. It is essentially a statistical technique that derives a linear equation to most effectively classify each group based on data obtained from two or more groups [24, 25, 26]. Multivariate Discriminant Analysis has been traditionally used to solve classification problems [25]. The technique consists of three stages. The first stage involves estimating coefficients for each variable to derive each discriminant function. The second stage involves

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calculating discriminant scores for each piece of data using the derived discriminant functions. The third stage involves classifying the dependent variable for each piece of data. The discriminant functions are composed of a linear combination of the independent variables used for discrimination, and those functions are designed to minimize the variance within each group and maximize the variance between groups. Equation (1) illustrates how the discriminant function takes into account a linear combination of independent variables to achieve the aforementioned variance objectives.

$$Z=W_1X_1+W_2X_2+\ldots+W_nX_n \quad (1)$$

where Z represents the discriminant score, W_n denotes the coefficients of the discriminant function, which are the weights, and X_n represents the independent variables. The discriminant score, Z, is calculated based on the weighted sum of the independent variables, where each variable X_n is multiplied by its corresponding weight W_n, and those products are summed to yield the discriminant score. The discriminant score is finally used to classify the data into appropriate groups.

3.2. Sample Size

This paper determined the appropriate sample size for conducting discriminant analysis within a statistical significance level based on the research findings of Johnson and Bhattacharyya (2019) [27]. Calculating sample size is crucial for ensuring the reliability and validity of discriminant analysis. An equation provided by Johnson and Bhattacharyya (2019) (Equation 2) can be used to compute the sample size that is sufficient to achieve statistically significant results. This equation takes into account various factors such as the number of independent variables, the expected effect size, and the desired power of the statistical test. Using such a methodical approach helps to ensure that the sample size is neither too small (which could lead to a lack of statistical power) nor too large (which could lead to unnecessary resource utilization and complexity).

$$Sample\ Size = \frac{\frac{Z^2\times\rho(1-\rho)}{e^2}}{1+\left(\frac{Z^2\times\rho(1-\rho)}{e^2N}\right)} \quad (2)$$

where N is the population size, e is the margin of error (as a percentage in decimal form), z is the z-score, and ρ is the observed percentage.

This study focused on data from Statistics Korea. The entire population of South Korea, approximately 50,000,000 individuals, was adopted as the potential consumer group for repurchasing athleisure apparel [28]. This approach assumes a broad potential market for athleisure wear among the South Korean population and accordingly a comprehensive scope for analyzing consumer behavior about athleisure apparel repurchase.

The sample size was based on a 95% confidence level (using a z-score of 1.96) and a margin of error of 5%. This paper determined that a sample size of 385 individuals would be appropriate. Therefore, the sample size of 400 utilized in this study was well-suited to the data analysis.

3.3. Data Collection

To analyze the prediction model, this paper gathered data about intentions to repurchase from customers residing in South Korea. The research used a verified questionnaire, which was distributed to 400 individuals who had repurchased athleisure wear within the past 6 months. Respondents were recruited via communities specializing in athleisure wear, and the data were collected from an online survey. Coffee coupons were provided to the respondents who participated in the survey. The items for each construct in the questionnaire studied based on the existing literature, and all of the items were assessed using a five-point Likert scale, with 1 indicating "strongly disagree" and 5 indicating "strongly agree."

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3.4. Measurement Items

The items of each construct were adopted from the literature, and all of the data were anonymized and aggregated (Table 1).

Table 1.
Measurement items.

Construct	Measurement items	Related studies
Authenticity	I feel a sense of authenticity from brands that make an effort to build trust with their customers.	[11,29,30]
	I feel a sense of authenticity from brands that are honest.	
	I feel a sense of authenticity from brands that encourage consumers to pursue the right values.	
Switching cost	The time it takes me to find the athleisure wear I want is significant.	[14,15]
	The cost incurred in finding the athleisure wear I want is substantial.	
Ethical consumption awareness	Companies should consider the impact they have on the country of production or the producers, including fair wages, human rights, and environmental factors. Purchasing clothing products from companies engaged in environmentally friendly activities is desirable. I prefer to purchase products from ethical companies. I believe that individual efforts towards environmental protection can contribute to addressing environmental issues.	[18,31]
Sports involvement	I want to participate in sports activities.	[20]
	I consider sports to be a part of my life.	
	I am interested in information about my favorite sports players or teams.	
Intention to repurchase	I will recommend the athleisure clothing I purchased to others.	[32,33,34]

The measurement items related to repurchase intention were developed based on previous research, and consumer behavioral intention was analyzed using a two-point nominal scale (1: no/2: yes) for repurchase intention [35].

4. Research Methodology

4.1. General Characteristics of the Survey Respondents

The valid sample consisted of 400 respondents (202 males (50.5%) and 198 females (49.5%)). Roughly one-fifth of the respondents (20.0%) were between the ages of 20 and 29, 20.8% were between the ages of 30 and 39, 23.8% were between the ages of 40 and 49, and 35.8% were aged 50 or older. The characteristics of the survey participants are outlined in Table 2.

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Table 2.
Analysis of survey respondents.

		Entire sample	Gender	
			Male	Female
Age	20–29	80 (20.0%)	42 (20.8%)	38(19.2%)
	30–39	83 (20.8%)	43 (21.3%)	40(20.2%)
	40–49	95 (23.8%)	48 (23.8%)	47(23.7%)
	50+	142(35.5%)	142(35.5%)	73(36.9%)
Total		400 (100.0%)	202 (100.0%)	198 00.0%)

4.2. Descriptive Statistics

Table 3 provides an overview of the survey's descriptive statistics.

Table 3.
Descriptive statistics.

		N	Minimum	Maximum	Mean	Std. deviation
Q1	I feel a sense of authenticity from brands that make an effort to build trust with their customers.	400	2	5	3.94	0.680
Q2	I feel a sense of authenticity from brands that are honest.	400	1	5	3.90	0.707
Q3	I feel a sense of authenticity from brands that encourage consumers to pursue the right values.	400	2	5	4.13	0.654
Q4	I feel authenticity in actions that seek to preserve a brand's core values.	400	2	5	4.16	0.655
Q5	The time it takes me to find the athleisure wear I want is significant.	400	1	5	3.44	0.823
Q6	The cost incurred in finding the athleisure wear I want is substantial.	400	1	5	3.45	0.821
Q7	Companies should consider the impact they have on the country of production or the producers, including fair wages, human rights, and environmental factors.	400	2	5	4.21	0.661
Q8	Purchasing clothing products from companies engaged in environmentally friendly activities is desirable.	400	1	5	4.11	0.785
Q9	I prefer to purchase products from ethical companies.	400	2	5	4.08	0.696
Q10	I believe that individual efforts towards environmental protection can contribute to addressing environmental issues.	400	1	5	4.03	0.745
Q11	I will recommend the athleisure	400	2	5	3.93	0.607

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		N	Minimum	Maximum	Mean	Std. deviation
	clothing I purchased to others.					
Q12	I want to participate in sports activities.	400	1	5	4.00	0.741
Q13	I consider sports to be a part of my life.	400	1	5	3.87	0.921
Q14	I am interested in information about my favorite sports players or teams.	400	1	5	4.09	0.688
Valid N (Listwise)		400				

This paper used the Kaiser-Meyer-Olkin (KMO) Test and Bartlett's Test of Sphericity to analyze whether the correlation between the survey items derived from previous studies could be well explained by other variables (Table 4). The measure of sampling adequacy of the KMO Test was 0.905, and its *p*-value was 0.000. This paper accordingly concluded that this paper had demonstrated a reliable result.

Table 4.
KMO and Bartlett's tests.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.905
Bartlett's test of sphericity	Chi-squared	6403.028
	Degrees of freedom	946
	Significance	0.000

This paper used SPSS (version 25.0 (IBM, USA)) to check the validity of the framework listed in Table 4. This paper analyzed data and extracted factors using the method of maximum likelihood, Kaiser normalization for factor extraction, and the direct oblique method. Table 5 shows four latent variables that represent the properties of observed variables and 13 measurement items that take into account the characteristics of factors with similar properties. Cronbach's alpha verified the reliability between the latent and observed variables and suggested that the statistic was valid (Table 4). This paper adopted 0.7 as the standard point.

Table 5.
Validity and reliability of the factors.

Construct	Measurement item	Coefficient factor	Cronbach's alpha
Authenticity	Q1	0.706	0.767
	Q2	0.668	
	Q3	0.630	
	Q4	0.625	
Switching cost	Q5	0.821	0.784
	Q6	0.787	
Ethical consumption awareness	Q7	0.723	0.768
	Q8	0.694	
	Q9	0.691	
	Q10	0.617	
Sports involvement	Q12	0.657	0.732
	Q13	0.631	
	Q14	0.631	

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Also, one hundred percent of the data were valid in the paper. Table 6 presents the mean values and standard deviations of the independent variables (four latent variables) for each group, along with the results of the group-difference tests. All four variables revealed higher values for the group with repurchase intention compared with the group without repurchase intention.

Table 6.
Group statistics.

Discriminant analysis for intention to repurchase		**Mean**	**Std. deviation**	**Valid N (Listwise)**	
Consumers with no intention to repurchase	Authenticity	3.9174	0.50683	215	215.000
	Switching cost	3.3698	0.70827	215	215.000
	Ethical consumption awareness	4.0547	0.55026	215	215.000
	Sports involvement	3.8341	0.60790	215	215.000
Consumers with intention to repurchase	Authenticity	4.1581	0.49966	185	185.000
	Switching cost	3.5270	0.77972	185	185.000
	Ethical consumption awareness	4.1703	0.55664	185	185.000
	Sports involvement	4.1586	0.54070	185	185.000
Total	Authenticity	4.0288	0.51705	400	400.000
	Switching cost	3.4425	0.74537	400	400.000
	Ethical consumption awareness	4.1081	0.55553	400	400.000
	Sports involvement	3.9842	0.59938	400	400.000

This paper found that the "Sports Involvement" variable exhibited the smallest Wilks' lambda and the largest F-value. This finding indicates that this variable had the highest discriminative power, meaning that the difference between the two groups was most pronounced in terms of the "Sports Involvement" variable. In other words, "Sports Involvement" was the most important discriminant factor that influenced consumers' repurchase intentions.

Table 7.
Tests of equality of group means.

	Wilks' Lambda	**F-value**	***df1***	***df2***	***Sig.***
Authenticity	0.946	22.716	1.000	398.000	0.000
Switching cost	0.989	4.465	1.000	398.000	0.035
Ethical consumption awareness	0.989	4.343	1.000	398.000	0.038
Sports involvement	0.927	31.353	1.000	398.000	0.000

This paper additionally verified the assumption of the equality of covariance matrices for the two groups based on the analysis presented in Tables 8 and 9. Box's M test results indicated that the assumption was not violated (Box' M=3.656, p=0.304), which suggests that the covariance matrices of the two groups are equal.

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Table 8.
Pooled within-groups matrices[a].

		Authenticity	Switching cost	Ethical consumption awareness	Sports involvement
Covariance	Authenticity	0.254	0.056	0.141	0.098
	Switching cost	0.056	0.551	0.043	0.092
	Ethical Consumption awareness	0.141	0.043	0.306	0.074
	Sports involvement	0.098	0.092	0.074	0.334
Correlation	Authenticity	1.000	0.149	0.506	0.338
	Switching cost	0.149	1.000	0.104	0.215
	Ethical consumption awareness	0.506	0.104	1.000	0.230
	Sports involvement	0.338	0.215	0.230	1.000

Note: [a] The covariance matrix has 398 degrees of freedom.

Table 9.
Test results.

Box's M		3.656
F	Approx.	1.212
	*df*1	3
	*df*2	101432835.595
	Sig.	0.304

Note: Tests of the null hypothesis of equal population covariance matrices.

4.3. Stepwise Statistics

This paper did not simultaneously compute the coefficients for all of the independent variables. Instead, this paper used a stepwise estimation approach in which the variables were entered into the model in the order of their discriminative power. This paper first entered "Sports Involvement" into the model, which resulted in a Wilks' lambda of 0.027 (p-value = 0.000). This paper then entered "Authenticity" entered the model, which caused the Wilks' lambda to decrease to 0.907 (p-value = 0.000). This finding indicates that the discriminative power improved as more independent variables were added into the model. Our results are summarized in Table 10.

Table 10.
Variables entered.

Step	Entered	Wilks' Lambda							
		Statistic	*df1*	*df2*	*df3*	Statistic	Exact F		
							df1	*df2*	*Sig.*
1	Sports involvement	0.927	1	1	398.000	31.353	1	398.000	0.000
2	Authenticity	0.907	2	1	398.000	20.293	2	397.000	0.000

Source At each step, the variable that minimized the overall Wilks' lambda was entered.

Table 11 lists the variables that were not entered at each step. The F-significance probability for each variable and the Wilks' lambda when each variable was entered are also provided. In Step 0, of the variables within the range of acceptable F-significance probabilities, "Sports Involvement" had the lowest Wilks' lambda. It therefore entered the model in Step 1.

In the next step, "Authenticity" had the lowest Wilks' lambda; it therefore entered the model in Step 2. Additionally, in step 2, there were no variables that met the F-significance probability entry criteria. As a result, the process of incorporating additional variables into the model did not proceed any further.

Table 11.
Variables not included in the analysis.

Analysis step		Tolerance	Min. tolerance	Sig. of F to enter the model	Wilks' Lambda
0	Authenticity	1.000	1.000	0.000	0.946
	Switching cost	1.000	1.000	0.035	0.989
	Ethical consumption awareness	1.000	1.000	0.038	0.989
	Sports involvement	1.000	1.000	0.000	0.927
1	Authenticity	0.886	0.886	0.003	0.907
	Switching cost	0.954	0.954	0.372	0.925
	Ethical consumption awareness	0.947	0.947	0.433	0.926
2	Switching cost	0.947	0.858	0.519	0.906
	Ethical consumption awareness	0.740	0.692	0.511	0.906

Table 12 lists the Canonical Correlation Coefficients that indicate the relationship between discriminant scores and groups.

Table 12.
Eigenvalues[a].

Function	Eigenvalue	% of variance	Cumulative %	Canonical correlation coefficient
1	0.102[a]	100.0	100.0	0.383

Note: [a]First only one canonical discriminant function was used in the analysis.

The data listed in Table 13 reveal that the Wilks' lambda for the discriminant function consisting of two independent variables (Sports Involvement and Authenticity) was 0.907; that value falls within the range of statistical significance.

Table 13.
Wilks' Lambda.

Test of function(s)	Wilks' Lambda	Chi-squared	*df*	*Sig.*
1	0.102[a]	100.0	100.0	0.383

4.4. Discriminant Analysis

Table 14 presents the classification functions developed for each group. These classification functions are the result of the discriminant analysis and are used to classify consumers into groups based on their

input data. This paper can accordingly determine whether consumers belong to the group with an intention to repurchase or the group without an intention to repurchase.

Table 14.
Classification function coefficients.

	Discriminant analysis for intention to repurchase	
	Consumers with no intention to repurchase	**Consumers with intention to repurchase**
Authenticity	12.417	13.064
Sports Involvement	7.832	8.613
(Constant)	-40.029	-45.763

Fisher's linear discriminant functions.
The discriminant function can accordingly be defined as follows:

Consumers with no intention to repurchase = 12.417×(Authenticity)+7.832×(Sports Involvement)-40.092
Consumers with intention to repurchase = 13.064×(Authenticity)+8.613×(Sports Involvement)-45.763

Table 15 summarizes the overall fit of the discriminant function developed in this study. It also provides information about the hit ratio for predicting consumers' repurchase intentions (i.e., 64.3%).

Table 15.
Classification results[a].

			Predicted group membership		
			1	**2**	**Total**
Original	Count	Consumers with no intention to repurchase	144	71	215
		Consumers with intention to repurchase	72	113	185
	%	Consumers with no intention to repurchase	67.0	33.0	100
		Consumers with intention to repurchase	38.9	61.1	100

Note: [a]64.3% of original grouped cases correctly classified.

5. Conclusions

As the business environment becomes more complex, it is increasingly important to accurately predict consumers' future buying decisions. Traditionally, businesses have relied on subjective judgments based on experience and knowledge to forecast future trends. However, given advancements in data collection and analysis technologies, there has been a shift towards developing predictive models using previously collected data. This approach involves analyzing data to identify patterns and trends and then using that information to create more objective, data-driven predictions. The evolution from subjective judgment to data-driven predictions represents a significant change in how businesses can approach planning for the future and decision-making.

5.1. Implication of the Research.

This paper has presented a predictive model for analyzing customers' repurchase activities based on consumer data and investigated consumer attitudes, preferences, and perceptions using an online survey. This paper developed a predictive model for forecasting consumer repurchase intentions, which can provide valuable insights into consumer behavior theory. Furthermore, the discriminant analysis employed in this study highlights its interdisciplinary relevance to a variety of academic fields, including marketing, psychology, and mathematical statistics. This exploration of interdisciplinary research possibilities can contribute to the development of more-comprehensive models of consumer behavior.

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5.2. Managerial Implication

Customers can be divided into two groups: individuals who have repurchase intentions and those who do not. Such segmentation enables a more thorough understanding of customers' potential future purchasing behaviors. Furthermore, it enables the development of more effective marketing strategies. The discriminant analysis model developed in this study can be used to predict future purchasing scenarios based on customers' previous purchase data. Such a model can in turn be used to allocate marketing resources more effectively: by focusing marketing efforts on customer groups with a higher likelihood of repurchase, the return on investment from marketing efforts can be maximized. Discriminant analysis can also be used to provide personalized product recommendations, which can improve the customer buying experience and potentially lead to increased revenues. This study found that the factors "sports involvement" and "authenticity" were significant in predicting customers' repurchase intentions. Consumers who purchase athleisure wear have a psychological desire to continuously participate in sports activities [19, 20]. That fact consumers who purchase athleisure wear have a psychological desire to continuously participate in sports activities. This paper suggests a positive correlation between high involvement in sports activities and an intention to repurchase athleisure wear. However, from a corporate perspective, such results can be explained using new marketing strategies. That is, companies might consider campaigns that closely link consumers' daily lives with sports activities, or companies might design athleisure wear to be suitable for everyday wear. Furthermore, brand authenticity is an important factor in determining customers' repurchase intentions. Therefore, when companies share consistent values and keep their promises, customers perceive those actions as trustworthy. Providing transparent and consistent information is also crucial to helping customers better understand a brand and having more positive brand-focused experiences. Customers are accordingly more likely to trust an honest brand, hold a more positive attitude towards its products or services, and share their good experiences via recommendations to other shoppers. In doing so, those customers promote positive word-of-mouth and introduce the brand to a wider customer base. Ultimately, the perception of authenticity in an honest brand builds a strong and trusting relationship between the customer and the brand. That situation lays the foundation for long-term business success. Customers are more deeply connected to brands that align with their values, and those customers continue to support and prefer these brands [36]. The authenticity of a brand goes beyond the quality of its products or services; it depends on how the brand interacts with customers and reflects their expectations and values. Such genuine efforts enhance customers' psychological satisfaction and contribute to forming a positive perception of the brand.

6. Discussion

This paper used discriminant analysis as a predictive model of customer repurchase activities. However, discriminant analysis can also be used to predict changes in customer behavior over time. Companies can accordingly establish strategies to respond to market trends and changes in customer needs. However, the accuracy of our analysis could be improved by collecting a larger amount of data for analysis. Additionally, it would be beneficial to consider ways of increasing the hit ratio of our results.

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This survey has received IRB approval from the Sookmyug Women's University.

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