The Effects of Major Selection Motivations on Dropout, Academic Achievement and Major Satisfactions of College Students Majoring in Foodservice and Culinary Arts

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Abstract: This study is aimed at figuring out the effects of major selecting motivation on dropout, academic achievement, and major satisfactions of college students majoring in foodservice and culinary arts. To accomplish this, an empirical survey was conducted through a structural equation model. These findings showed that students are likely to drop out of college due to a career change or major maladjustment if they decide their major in consideration of college reputation or department recognition rather than their aptitude. Unlike existing studies, this study has practical implications concerning the importance of these factors in that their academic achievement is affected by their relationship and perception of their major satisfactions rather than their major selection motivations.

1. Introduction

The development of the food service industry has become an indispensable factor in the development of the food service industry due to the development of the food industry. For this reason, the importance of education in culinary studies is more important than ever in terms of fostering and discharging talents who are more suitable for the age of knowledge and information. However, it has failed to fulfill its role as an educational institution for extending and supplementing school education. Also, it is a reality that pre-cooks who want to find a job in a food service company are increasingly dropping out of their jobs due to a lack of cooking skills and educational experiences required by the food service company after employment.

The motivation to choose a major is to choose a major in any way in order to go to college. Internal factors are related to aptitude, experience, interests, interests, and grades. External factors are related to acquaintances, family invitations, media, data collection, employment prospects, and family circumstances [1]. In other words, one of the goals of going to college is to find a major that fits your aptitude and develop your expertise before going to society. When external motives mainly influence the selection of majors and make choices, an individual may not be satisfied with college life, or may experience difficulties in preparing for a job, and may face undecided career paths. If the main motive for choosing a major is focused only on social needs, such as employment after graduation, which is an external factor, it appears to experience many internal conflicts [2]. In addition, if the major is considered by the university's reputation or departmental recognition, the career change or dropout rate is higher than if the major was determined in consideration of aptitude [3]. As such, when choosing a major with external motives, it was found that they wanted to change their career path or suffered dropouts due to various difficulties such as maladjustment of their major. On the other hand, if you choose a major based on internal motives, you are interested in the major itself

because it is the same as your aptitude, interest, and talent, which leads to increased immersion and understanding of the major. As a result, the degree of satisfaction in the major increases [4].

As such, the motivation to choose a major is reported to have an effect on major satisfaction, adaptation to college life, and academic achievement. However, the results of the impact are somewhat mixed [5,6]. Therefore, since it is necessary to confirm whether the existing research results reflect the current situation and reality, this study is aimed to suggest interdisciplinary and industrial implications by understanding the influence of major selection motivation on major satisfaction, academic achievement, and dropout.

2. Theoretical Backgrounds

2.1. Motivation for Choosing a Major

Career decision is one of the tasks that must be solved inevitably throughout the life, and the act of selecting a major at the time of entering university is an important decision because it is closely related to the life and career an individual pursue in the future [7]. Therefore, it is important to choose a major that suits you by approaching the career problem deliberately and carefully. It is desirable to select a major based on the student's own interest, ability, personality, and collection of specific information about the major.

According to the 2019 OECD (Organization for Economic Cooperation and Development) education indicator, the rate of high school students in Korea going to university reached 70%. This result indicates that the majority of high school students are preparing for college entrance [8]. As a result of this social phenomenon, Korean high school education is being conducted in accordance with the set goal of college admission, and confusion arises when encountering unfamiliar major knowledge, values, and career problems after entering university [7]. If a major is inconsistent with one's interests, aptitudes, and talents, the degree of participation in classes decreases, leading to maladaptation to college life and confusion about career paths [9]. There are cases where you lose interest in your major and go back to your major by transferring or re-admission when choosing a major without sufficient search for oneself. In addition, if maladjustment occurs within the department due to inadequate major selection, the motivation and interest in learning decrease, leading to dropout [10].

A report by Gottfredson and Becker [11] stated that, when choosing a career path, the process of finding a compromise on which points to give up is called career compromise, and through the compromise process, you can shape your career path. In addition, they argued that interest, social status, and gender roles are important factors in compromising career decisions.

In order to increase the overall satisfaction with the school, Arslan & Akkas [12] suggested, in a study on the quality of university life of Turkish students, to first focus on improving students' social life satisfaction, and then focus on improving school facilities and services.

In addition, the process of compromising social status lies in the selection taking into account the university's social reputation, department popularity, and employment prospects. The process of compromising interest means choosing a major according to one's aptitude, aptitude, and interest. Lastly, the gender-type compromise process can be exemplified by gender bias that can occur in specific majors, such as engineering favored by male and teachers college preferences by female students [13]. This is deeply related to the satisfaction of choosing a career, and generally, the timing of entering a university to select a major is important as a time when a person must decide the range of career options according to your interests and aptitudes, and select a major through a specific compromise process.

2.2. Dropout

Dropouts are influenced by psychological, environmental, and interpersonal variables with the desire to leave the educational institution to which they belong.

Dropout was called dropout if a student who participated in school education voluntarily or unwillingly give up before achieving a purpose other than education. This is because the problem

that students who do not attend school for a long period of time or students who are absent without notice because of interest in dropping out in the field of education is becoming an increasing social issue. They do not voluntarily participate in school education, so they cannot achieve the purpose of education. Above all, students who have dropped out of the school have a relatively low social status compared to those who have gone through the regular curriculum, which is disadvantageous to economic activity or social success.

As a factor influencing dropout, the more difficult it is to pay for education, the more likely it is, and because school rules are too strict, the more restrictive students are, the more likely it is to drop out [14]. In addition, interpersonal variables comprehensively include relationships with teachers, parents, and friends, such as intimacy with teachers, support from parents, and support from peers, and social intimacy with peers and teachers is also an important factor that helps them adapt as members of the community. According to Kang et al. [15], the support and encouragement of parents affects the ability to continue their studies, and students who are continuing their studies receive more support and encouragement from their parents than those who drop out [16]. In addition, studies have shown that students do not intend to drop out if they are aware of their parents' support.

To subdivide this, first, psychological variables include self-belief, ideal self, self-awareness level, clear educational goals, and ability to perform tasks. Moreover, the greater the difference between their expected level and their actual ability, the more likely they are to drop out, and when their interests and education do not match, students are not satisfied with the education and lead to dropout. In addition, if the degree of interest in major, college life, or lecture is high, the intention to drop out is lower [16]. Second, environmental variables include satisfaction with the time and the distance to school, education costs, and school policy in controlling students.

2.3. Academic Achievement

Academic achievement is determined by the achievement factor of one's own efforts, but it is also influenced by factors such as the environment and status of the group of origin and the social and economic background of the family. It also refers to the learning outcomes such as knowledge, intellectual ability, attitude, and values learned through school education. It includes not only the learning results in the intellectual domain, but also the learning results in the non-intellectual domain [17]. These academic achievements are the result of determining what level of learning effect has been achieved for each individual's learning activities, helping to determine the academic ability to be acquired, and can have an important impact on social selection, ultimately affecting the individual's social status [5]. Since superior academic achievement has an important effect on the career of trainees, such as going to a better school and getting a job, not only trainees, but also teachers and parents are considered important parts of the student's study. The level of academic achievement is important as data indicating the extent to which a student has acquired the curriculum and as basic data concerning whether a student can complete the next course.

Factors that influence academic achievement are largely divided into individual factors (intelligence, personality, etc.) of learners and environmental factors (school environment, home environment, class environment, etc.). In addition, a learner's academic achievement is not determined by his or her own ability, but depends on the conditions, conditions, and methods of learning activities. If the learner's abilities, attitudes, and motivations are the learner variables, certain states, conditions, methods, etc. can be said to be educator variables [6]. Therefore, in order to clarify the influence and difference of academic achievement according to the learner's major selection motivation and major satisfaction, this variable is reflected and measured.

2.4. Major Satisfaction Level

Looking at previous studies related to major satisfaction, they are presented by dividing into two factors. Song [18] stated that individual gender, major, grade, and university location influence major satisfaction. In addition to personal characteristics, it can be explained as a result of close

interaction with external characteristics such as the influence of parents and teachers, education system, and labor industry structure. Through this, it is said that satisfaction with the major has an influence on the idea of a career path after graduation. Furthermore, major satisfaction was determined by dividing the major satisfaction into class satisfaction, subject satisfaction, relationship satisfaction, and cognitive satisfaction. Looking at the factors affecting the factors of department satisfaction, social perception when selecting a major and satisfaction with the major. The evaluation of satisfaction with the major was found to be an important factor in increasing the satisfaction of the major [19]. Therefore, environmental factors influence each other, and when the results are considered, major satisfaction refers to a subjective experience of feeling and thinking about a major as a complex of emotion and cognition. This suggests that each individual's behavior within the department of the major is formed by the interaction between the environment surrounding the major and the individual characteristics [20].

The major is the study of a variety of disciplines, from theory to demonstration, by an individual. When explained in an administrative sense, it is said that it is a basic unit in which professors and students work together and is a place for college life [21]. In addition, university majors are operated through the interaction between the intrinsic factors of members including professors and students and extrinsic factors including the external environment.

As a prerequisite study of student satisfaction, the factors constituting student satisfaction by Bailey & Miller [22] were divided into five areas: educational support, educational facilities, quality of lectures and relationship with instructors, and school life.

For this reason, satisfaction with a major is related to the motive for choosing a major, which has a close influence on college academic performance and college life adjustment.

In particular, the level of satisfaction in a major varies depending on the degree to which personal characteristics (interest, aptitude) coincide with the major. There are also research results that show that, if the major and personal characteristics match, the degree of satisfaction with the major is high [23].As college students with higher satisfaction of these factors are better at adapting to college life, satisfaction with major is an important factor for college students.

3. Research Model

In this study, the effect of the motivation for choosing a major in Foodservice and cooking was analyzed on dropout, academic achievement, and major satisfaction. A research model, as shown in Figure 1, was set up to verify the effect of the major selection motives of foodservice and cooking related departments on dropout, major satisfaction, and academic achievement, and the effect of major satisfaction on academic achievement.
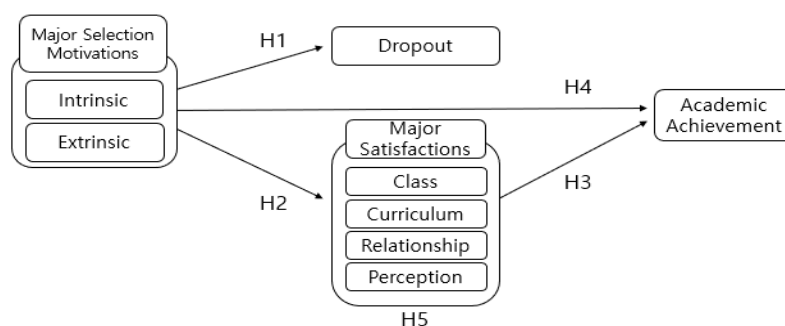

Figure 1. Research Model.

4. Hypothesis Setting

Based on the research model above, the hypothesis was established as follows.

Hypothesis 1 (H1). *Motivation for choosing a major (intrinsic and external) will affect dropout.*

Hypothesis 2 (H2). *The motive for choosing a major (intrinsic, external) will affect the degree of satisfaction (class, subject, relationship, perception).*

Hypothesis 3 (H3). *Major satisfaction (class, subject, relationship, perception) will affect academic achievement.*

Hypothesis 4 (H4). *The motivation for choosing a major (intrinsic and external) will affect academic achievement.*

Hypothesis 5 (H5). *Major satisfaction will play a mediating role in the effect of major selection motives (intrinsic and external) on academic achievement.*

5. Investigated Subject

In this study, a total of 300 students were selected for the study, each of 50 students from one school in 6 universities located in Seoul, Gyeonggi, and Daejeon after selecting students majoring in Foodservice and cooking at four-year universities in Korea. Among them, 221 copies were analyzed as final data after excluding the questionnaire written in infidelity.

6. Questionnaire Composition

The questionnaire was composed of operational definitions of measurement variables as shown in Table 1 to investigate the effect of culinary major selection motivation on dropout, major satisfaction, and academic achievement. The study subjects were divided into gender and grade in order to classify the general characteristics.

Table 1. Questionnaire Item and Operational Definition.

Variable		Operational Definition	Items	Source
Major Selection Motivations	Intrinsic	The criteria for major selection are intrinsic motivations such as interest, aptitude and values.	3	Song (2014)
	Extrinsic	The criteria for major selection are extrinsic motivations such as major popularity, family recommendation, mass media and employment prospect.	3	
Major Satisfactions	Class	Class Progress, Atmosphere, Use of Supplementary Materials	3	Yoon (2015)
	Curriculum	Curriculum Content, Teaching Time, Teaching-Practice Link, Diversity	4	
	Relationship	Student-Professor Communication, Career Guidance, Teaching Guidance Accessibility	4	
	Perception	Employment Prospect, External Perception, Major Popularity, Competitiveness	4	
Academic Achievement		Problem-Solving Ability, Decision-Making Ability, Grade	3	
Dropout		They're in college, but they want to drop out of school.	4	Lee (2006)
General characteristics		Gender, School year	2	

(1) Motivation for choosing a major

Table 1 shows the operational definition of the compositional concept of each of the 6 questions, each of 3 questions, that the internal and external factors of the motive for selecting a major were reflected using a scale by revising and supplementing the questionnaire used in Song's research [18].

(2) Major Satisfaction

The questionnaire used to analyze student satisfaction for culinary majors was modified and supplemented according to this study using the scale of Yoon [24]. Table 1 shows the operational definition of student satisfaction using 4 questions each.

(3) Academic achievement and dropout

Table 1 shows the operational definition of academic achievement and dropout by using Lee's [25] scale for 3 academic achievement and 4 dropout factors.

7. Empirical Analysis

7.1. Demographic Status

Table 2 shows the demographic characteristics of the subjects of this study. The demographic characteristics were 62 males (28.1%) and 159 females (71.9%) by gender. In terms of grades, there were 52 first graders (23.5%), 63 second graders (28.5%), 69 third graders (31.2%), and 37 fourth graders (16.7%).

Table 2. General characteristics of the subject.

General Information	General Information	Frequency (N)	Percentage (%)
Gender	Male	62	28.1
	Female	159	71.9
School year	Freshmen	52	23.5
	Sophomore	63	28.5
	Junior	69	31.2
	Senior	37	16.7
Total		221	100.0

7.2. Validity and Reliability of Measurement Tools

Table 3 shows the results of the reliability of each variable. Extrinsic and intrinsic factors as sub-factors of major selection motivation showed satisfactory reliability by satisfying Cronbach's α value of 0.7 or more, and as a result of factor analysis showing validity, all sub-factors were single factors and KMO values were 0.6 or more. As sub-factors of major satisfaction, relationship, recognition, class, and subject satisfaction each satisfied Cronbach's α value of 0.7 or more, indicating satisfactory reliability, and each sub-factor was a single factor, indicating a KMO value of 0.6 or more, and was used for analysis without modification. Dropout was a single factor, with Cronbach's α value of 0.8 or higher, KMO value of 0.7 or higher, and academic achievement also of Cronbach's α value of 0.7 or higher, single factor, and KMO value of 0.6 or higher.

Table 3. Result of validity and reliability test.

	Factor		Factor Loading	Eigen-Value	Variance (%)	k-m-o	Cronbach's α
Major Selection Motivations	Extrinsic	1-1	0.904	2.363	78.755	0.732	0.865
		1-2	0.879				
		1-3	0.879				
	Intrinsic	1-4	0.755	2.087	69.573	0.657	0.781
		1-5	0.855				
		1-6	0.887				
Major Satisfactions	Relationship	3-1	0.635	2.674	66.855	0.786	0.831
		3-2	0.849				
		3-3	0.877				
		3-4	0.884				
	Perception	3-5	0.797	2.87	71.74	0.821	0.780
		3-6	0.88				
		3-7	0.889				
		3-8	0.817				
	Class	3-9	0.810	2.116	70.542	0.699	0.789
		3-10	0.848				
		3-11	0.861				
	Curriculum	3-12	0.786	2.522	63.041	0.786	0.803
		3-13	0.773				
		3-14	0.857				
		3-15	0.757				
Dropout		2-1	0.797	2.870	71.740	0.821	0.868
		2-2	0.880				
		2-3	0.889				
		2-4	0.817				
Academic Achievement		4-1	0.727	1.996	66.544	0.647	0.747
		4-2	0.868				
		4-3	0.845				

7.3. Confirmatory Factor Analysis

Confirmatory factor analysis was conducted using AMOS 16.0 as a method to verify the validity of how well the measurement tool measured the concept to be studied. The fitness indicators were RMR = 0.041, TLI = 0.937, and CFI = 0.946, which were more than the standard values, and conceptual reliability (C.R.) and average variance extraction value (AVE) were calculated to verify the centralized validity. For centralized validity, standardized factor load should be 0.5 or more, T-value should be 1.965 or above, AVE should be 0.5 or above, and concept reliability should be 0.7 or above [26]. Table 4 shows the results of confirmatory factor analysis and concentration validity, and all variables satisfied the criteria for concentration validity.

Table 4. Confirmatory Factor Analysis Results.

Category		Standard Regression Weight	Standard Error	t-Value	Construct Reliability	Average Variance Extracted
Extrinsic	1-1	0.875	-	-	0.908	0.768
	1-2	0.803	0.072	13.072		
	1-3	0.799	0.069	13.012		
Intrinsic	1-4	0.58	0.075	7.889	0.886	0.727
	1-5	0.757	0.093	9.458		
	1-6	0.89	-	-		
Dropout	2-1	0.701	0.079	10.554	0.916	0.732
	2-2	0.833	0.083	12.846		
	2-3	0.858	0.087	13.236		
	2-4	0.773	-	-		
Relationship	3-1	0.54	0.071	8.292	0.886	0.666
	3-2	0.767	0.067	13.069		
	3-3	0.846	0.067	15		
	3-4	0.856	-	-		
Perception	3-5	0.659	0.144	7.733	0.849	0.585
	3-6	0.755	0.129	8.456		
	3-7	0.735	0.129	8.323		
	3-8	0.632	-	-		
Class	3-9	0.714	0.104	9.462	0.813	0.592
	3-10	0.736	0.108	9.659		
	3-11	0.795	-	-		
Curriculum	3-12	0.685	0.111	8.538	0.839	0.568
	3-13	0.673	0.117	8.419		
	3-14	0.827	0.122	9.644		
	3-15	0.669	-	-		
Academic Achievement	4-1	0.558	0.094	7.423	0.821	0.611
	4-2	0.842	0.113	9.535		
	4-3	0.74	-	-		

7.4. Structural Equation Model Analysis

In this study, structural model analysis was performed to verify the hypothesis. The model fitness index of the study model was Chi-square = 357.186, degrees of freedom = 306, AGFI = 0.900, GFI = 0.941, CFI = 0.981, RMSEA = 0.028, and RMR = 0.045. AGFI, GFI, CFI above 0.9, RMSEA, RMR below 0.05 can be said to be suitable, so this structural equation model can be seen to be acceptable. Table 5 and Figure 2 show the final results of the structural equation model.

Hypothesis 1-1 suggests that the intrinsic motivation for choosing a major will affect dropout. The path coefficient was 0.339, C.R = 4.423, and $p < 0.05$ was found to have a significant effect.

Hypothesis 1-2 is that the extrinsic motive for choosing a major will affect dropout. Path coefficient 0.268, C.R = 3.475, $p < 0.05$ showed significant effect.

Hypothesis 2-1 is that the intrinsic motivation for choosing a major will have an effect on class satisfaction. Path coefficient 0.34, C.R = 4.088, $p < 0.05$ showed significant effect.

Hypothesis 2-2 shows that the intrinsic motivation for choosing a major will have an effect on subject satisfaction. The path coefficient was 0.374, C.R = 4.556, and $p < 0.05$ was found to have a significant effect.

Hypothesis 2-3 indicates that the intrinsic motivation for choosing a major will affect relationship satisfaction. The path coefficient was 0.331, C.R = 3.973, $p > 0.05$, which was found to have a significant effect.

Hypothesis 2-4 shows that the extrinsic motive for choosing a major will affect cognitive satisfaction. The path coefficient was 0.348, C.R = 4.261, and $p < 0.05$ was found to have a significant effect.

Hypothesis 2-5 shows that the extrinsic motive for choosing a major will affect class satisfaction. Path coefficient 0.093, C.R = 1.165, $p < 0.05$ showed no significant effect.

Hypothesis 2-6 shows that the extrinsic motivation for choosing a major will have an effect on subject satisfaction. Path coefficient 0.116, C.R = 1.492, $p < 0.05$, showed no significant effect.

Hypothesis 2-7 shows that the extrinsic motive for choosing a major will affect relationship satisfaction. The path coefficient was 0.324, C.R = 3.79, and $p < 0.05$ showed a significant effect.

Hypothesis 2-8 shows that the extrinsic motive for selecting a major will affect cognitive satisfaction. The path coefficient was 0.364, C.R = 4.256, and $p < 0.05$ was found to have a significant effect.

Hypothesis 3-1 is that the intrinsic motivation for choosing a major will have an effect on academic achievement. Path coefficient 0.123, C.R = 1.226, $p < 0.05$ showed no significant effect.

Hypothesis 3-2 is that the extrinsic motivation for choosing a major will have an effect on academic achievement. The path coefficient -0.175, C.R = 1.869, $p < 0.05$ showed no significant effect.

Hypothesis 4-1 states that class satisfaction will have an effect on academic achievement. Path coefficient 0.121, C.R = 1.459, $p < 0.05$ showed no significant effect.

Hypothesis 4-2 states that subject satisfaction will have an effect on academic achievement. Path coefficient 0.145, C.R = 1.711, $p < 0.05$ showed no significant effect.

Hypothesis 4-3 states that subject satisfaction will have an effect on academic achievement. The path coefficient was 0.313, C.R = 3.154, $p > 0.05$, showing no significant effect.

Hypothesis 4-4 states that cognitive satisfaction will have an effect on academic achievement. Path coefficient of 0.258, C.R = 2.595, $p < 0.05$ showed no significant effect.
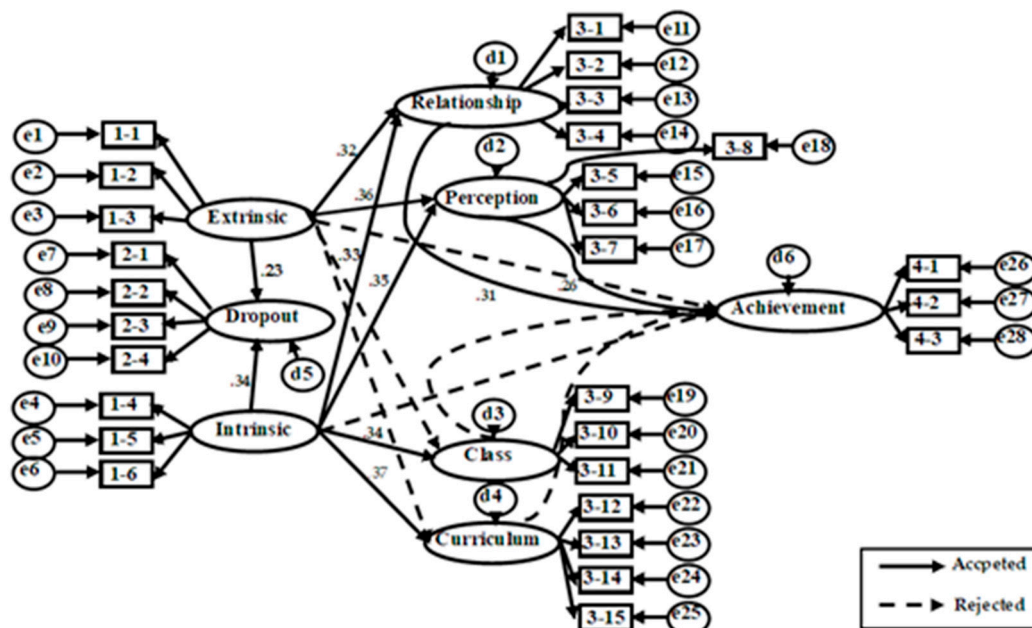

Figure 2. Final Path Analysis Result.

Table 5. Final Path Analysis Result.

	Path			B	Beta	S.E.	C.R.	P	Adopt or Reject
H1-1	Intrinsic	→	Dropout	0.258	0.339	0.058	4.423	***	accepted
H1-2	Extrinsic	→	Dropout	0.229	0.268	0.066	3.475	***	accepted
H2-1	Intrinsic	→	Class	0.321	0.34	0.079	4.088	***	accepted
H2-2	Intrinsic	→	Curriculum	0.322	0.374	0.071	4.556	***	accepted
H2-3	Intrinsic	→	Relationship	0.191	0.331	0.048	3.973	***	accepted
H2-4	Intrinsic	→	Perception	0.28	0.348	0.066	4.261	***	accepted
H2-5	Extrinsic	→	Class	0.098	0.093	0.085	1.165	0.244	rejected
H2-6	Extrinsic	→	Curriculum	0.112	0.116	0.075	1.492	0.136	rejected
H2-7	Extrinsic	→	Relationship	0.21	0.324	0.055	3.79	***	accepted
H2-8	Extrinsic	→	Perception	0.328	0.364	0.077	4.256	***	accepted
H3-1	Intrinsic	→	Academic Achievement	0.077	0.123	0.063	1.226	0.22	rejected
H3-2	Extrinsic	→	Academic Achievement	−0.123	−0.175	0.066	−1.869	0.062	rejected
H4-1	Class	→	Academic Achievement	0.08	0.121	0.055	1.459	0.145	rejected
H4-2	Curriculum	→	Academic Achievement	0.105	0.145	0.061	1.711	0.087	rejected
H4-3	Relationship	→	Academic Achievement	0.339	0.313	0.107	3.154	0.002	accepted
H4-4	Perception	→	Academic Achievement	0.201	0.258	0.077	2.595	0.009	accepted

Note: $p < 0.001$ are marked with ***.

7.5. Mediated Effect

In order to test the hypothesis that major selection motivation will have a mediating effect of major satisfaction in the effect of major selection motives on academic achievement, the significance of indirect effects was verified with the bootstrapping method. Repeated extraction was performed 500 times and measured according to the significance level of 0.05. The results are shown in Table 6.

Hypothesis 5-1 suggests that intrinsic major selection motive affects academic achievement, and major satisfaction will play a mediating role. It was found that the indirect effect was 0.289, $p < 0.05$, which had a complete mediating effect.

Hypothesis 5-2 suggests that the extrinsic major selection motive affects academic achievement, and major satisfaction will play a mediating role. It was found that the indirect effect was 0.223, $p < 0.05$, which had a complete mediating effect.

Table 6. Result of Analyzing the Mediating Effect.

Category		Path				Total	Direct	Indirect	p	Adopt or Reject
H5-1	Intrinsic	→	Major Satisfactions	→	Academic Achievement	0.412	0.123	0.289	0.005	accepted
H5-2	Extrinsic	→				0.048	−0.175	0.223	0.019	accepted

8. Conclusions

In summarizing the above research results, first, it was observed that the influence of the internal and external major selection motives for choosing a major in food service and cooking had a significant effect on dropout. Second, the influence of the intrinsic major selection motive on major satisfaction was adopted as class, subject, recognition, and relationship satisfaction, but the extrinsic major selection motive was found to be insignificant in terms of the impact on the class and subject satisfaction, and was partially adopted. Third, the influence of the motive for selecting a major on academic achievement was rejected as it was found to be insignificant. Fourth, the influence of major satisfaction on academic achievement was partially adopted because it was not significant in class and subject satisfaction. Fifth, in the effect of major selection motives on academic achievement, major satisfaction was adopted because the complete mediation effect was significant.

In other words, college students choose their major to enter college. At this time, as a motive that directly affects, the intrinsic factors are related to aptitude, experience, interest and grades, and the extrinsic factors are the recommendation of acquaintances, family suggestion, mass media, materials, employment prospects, and family circumstances, etc. One of the objectives of entering college is to enter the society by finding a major suitable for you and developing your expertise as a probation stage

before entering society. In this study, it was shown that when a major is selected as an external motive, students may not be satisfied with the class and subject matter, or face difficulties in the process of academic achievement. However, even if the major was selected due to external factors, it was found that the relationship between acquaintance and professors and satisfaction with external perceptions about the major had a significant effect on academic achievement. In addition, even if a major is selected by an intrinsic factor, it does not directly affect academic achievement, but shows a complete mediating effect by major satisfaction. Therefore, academic achievement is more influenced by major satisfaction after admission than the motive for selecting a major. It has the value of this study in that it has been suggested. However, it has a limitation in that it has a significant effect on dropout regardless of internal or external major selection motives, requiring an in-depth search for the causative variable of dropout.

These results show that, when a major is decided in consideration of the reputation of the university or the department's recognition, dropouts are higher due to career change or maladaptation to the major than when the major is decided by considering aptitude. On the contrary, unlike previous studies that shows if a major is selected as an internal motive, it is the same as one's aptitude, interest, and talent, so the degree of immersion and understanding in the major increases, resulting in increased major satisfaction and academic achievement. Conversely, unlike previous studies that show that major satisfaction and academic achievement increase when a major is selected as an internal motive, academic achievement is both important and practical in that it is influenced by relationship satisfaction and cognitive satisfaction among major satisfaction rather than major selection motive. Because of this, they have practical implications along with the importance of these factors.

This is due to the fact that it is more important than the psychological motivational factors of the past when the major was selected during the college entrance course. It is necessary to help them solve the difficulties of finding employment that currently faces college students. In addition, even if the major is selected according to the intrinsic aptitude and interest, if satisfaction with external perception and prospects for employment is low, it is necessary to set goals related to employment after graduation, and to achieve this, active counseling and education are required.

9. Limitations and Suggestions of Research

In this study, the suggestions for further research are as follows. First, in this study, it is difficult to explain the whole of culinary college students only with these variables, which have been studied by setting the dropout, major satisfaction, and academic achievement as variables related to the major selection motivation of catering college students.

Factors influencing the culinary college student's motive for major selection can be very diverse and widespread, but there is a limitation in that this study deals with major selection motive behavior by focusing on intrinsic and extrinsic characteristics. Therefore, in the follow-up study, it will be necessary to conduct a qualitative study to search for and deduce various variables that influence the major selection motivation of food service and culinary major students.

Second, a clear influence or causal relationship between the major selection motivation, dropout, major satisfaction, and academic achievement among college students in catering and cooking can be expected to improve students' motivation for major selection related to career paths. Therefore, it will be a meaningful study if an in-depth follow-up study is continued.

Third, in this study, there is a limit to generalization because the study was limited to four-year college students in Seoul and Gyeonggi area. In the follow-up study, it will be necessary to expand the scope of not only four-year colleges, but also two-year colleges.

References

1. Seo, B.W. The Effects of Motivation for major choice of University Students on Vocation Choice Factors. *J. Employ. Career* **2013**, *3*, 65–81.
2. Moon, J.H. The effects of major selection motivation on major satisfaction and vocation selection-focused on the college students major in hospitality and tourism. *J. Hosp. Tour. Stud.* **2015**, *17*, 323–347.
3. Han, Y.J.; Lee, J.H. A Study on Major Satisfaction and Career Maturity according to the Values of College Students—Majoring in Food Management and Culinary Arts. *Culin. Sci. Hosp. Res.* **2013**, *19*, 76–92.
4. Gong, Y.J.; Lee, E.J. Career adjustment process of college students who decided on their majors based on extrinsic motivation. *Korean J. Couns.* **2014**, *15*, 1771–1789. [CrossRef]
5. Park, A.S.; Kim, H.K. The effect of motivation for major choice and satisfaction in major on the adaption of university life among university students. *J. Korea Acad. Ind. Coop. Soc.* **2016**, *17*, 511–519.
6. Song, Y.J.; Cho, K.K. The Mediating Effect of Major Satisfaction and Professor-Student Interaction on the Relationship Between Intrinsic Motivation and School Life Adjustment. *J. Res. Inst. Korean Educ.* **2012**, *34*, 61–77.
7. Kim, K.W. Relationship between university student's attributional-style and learning adaptation considered in department selection. *J. Korea Acad. Ind. Coop. Soc.* **2012**, *13*, 694–700.
8. *OECD Education Indicators*; KDI Economic Information and Education Center: Seoul, Korea, 2019.
9. Han, Y.J. The Study on the Relationship Between the Degree of Instruction Participation and Major Satisfaction and the Employment Preparation Behavior by the Major Selection Motive and Their Work Values of University Students. Ph.D. Thesis, Kyungsung University, Seoul, Korea, 2014.
10. Park, I.K.; Woo, L.S. The Study on the Influence of Career Selection Type of University Students Major in Food-service, Class Participation, Career Preparation Behavior. *Culin. Sci. Hosp. Res.* **2015**, *21*, 121–130.
11. Gottfredson, L.S.; Becker, H.J. A challenge to vocational Psychology—How important are aspirations in determining male career development? *J. Vocat. Behav.* **1981**, *18*, 121–137. [CrossRef]
12. Arslan, S.; Akkas, O.A. Quality of college life of students in turkey: Students' life satisfaction and identification. *Soc. Indic. Res.* **2014**, *115*, 869–884. [CrossRef]
13. Hwang, M.H.; Kim, K.H. Compromise process of Korean high school graduates' decision-making. *Korean J. Couns.* **2003**, *4*, 19–36.
14. Lee, S.Y. *Research on the Development of Social Adjustment Counseling Policy for Dropout Students*; Youth Dialogue Square, Report; The Korea Social Policy Institute: Seoul, Korea, 1997.
15. Kang, M.H.; Lee, E.K.; Lee, E.T. *Trends and Influencing Factors of College Students' Dropout Intention*; Forum for Youth Culture Volume 58; Research Center for Korea Youth Culture: Seoul, Korea, 2019; pp. 5–30.
16. Kim, J.H. The Hierarchical Relationship between Individual, College, Social Variable, and Dropout Intention of College Students. *J. Vocat. Educ. Res.* **2011**, *30*, 249–266.
17. Chae, D.W.; Jin, K.H.; Jeong, K.O. An Empirical Study on the Analysis of Chinese Foreign Students' Academic Achievement and Fallout. *J. Inf. Technol. Appl. Manag.* **2020**, *27*, 37–54.
18. Song, Y.J. The Effect of Major Selection Motivation Major Satisfaction and Professor-Student Interaction of University Students on their School Life Adijustment. Ph.D. Thesis, Dong-A University, Busan, Korea, 2014.
19. Chae, H.S. The Effects of Major Selection Motivation on Career Efficacy and Major Satisfaction of College Students majoring in Culinary Art and Food-service Management. *Culin. Sci. Hosp. Res.* **2017**, *23*, 34–47.
20. Kim, H.J.; Yoon, H.H. The Influence of Major Satisfaction and Self-Efficacy of University Students Majoring in Culinary Arts on Career Preparation Behavior. *Culin. Sci. Hosp. Res.* **2020**, *26*, 103–112.
21. Park, S.M.; Ko, J.W. Factors Affecting Diversity Experiences of College Students: An Analysis of Institutional Difference. *J. Educ. Adm.* **2015**, *33*, 319–342.
22. Bailey, R.C.; Miller, C. Life Satisfaction and Life Demands in College Students. *Sch. Behav. Pers.* **1998**, *26*, 51–56. [CrossRef]
23. Lee, J.A. A Study on Student Satisfaction with Educational Environment, Innovation Configuration, and Intervention Demand of Students in Culinary Practice Education—Focusing on University Students Majoring in Culinary Arts. *Culin. Sci. Hosp. Res.* **2013**, *19*, 77–93.
24. Yoon, K.H. Impacts of Major Selection Motivation on Person-University Fit, Person-Major Fit, Major Satisfaction and Job Seeking Efficacy in Food & Culinary Arts Students, Focused on Mentoring. Ph.D. Thesis, Sejong University, Seoul, Korea, 2015.

25. Lee, A.R. Promotion of culinary education through the importance and satisfaction surveys for cooking training: A survey of cooking department university student on Busan. Master's Thesis, Graduate School of Nambu, Gwangju, Korea, 2016.

26. Arbuckle, J.L. *IBM SPSS Amos 20 User's Guide*; IBM: New York, NY, USA, 2011; pp. 595–620.