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Retraction

Retracted: Exploring the Entrepreneurship Training Mode of Medical Students in Beijing-Tianjin-Hebei Universities under the Strategic Background of "Healthy China" from the Perspective of Mixed Big Data

Mobile Information Systems

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope
(2) Discrepancies in the description of the research reported
(3) Discrepancies between the availability of data and the research described
(4) Inappropriate citations
(5) Incoherent, meaningless and/or irrelevant content included in the article
(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] L. Gong, C. Wang, and J. Bai, "Exploring the Entrepreneurship Training Mode of Medical Students in Beijing-Tianjin-Hebei Universities under the Strategic Background of "Healthy China" from the Perspective of Mixed Big Data," *Mobile Information Systems*, vol. 2022, Article ID 8177760, 17 pages, 2022.

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Research Article

Exploring the Entrepreneurship Training Mode of Medical Students in Beijing-Tianjin-Hebei Universities under the Strategic Background of "Healthy China" from the Perspective of Mixed Big Data

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In order to solve the problem that postgraduates are affected by the traditional concept of career choice of the native family and their entrepreneurial intention is obviously low, a method to explore the entrepreneurial spirit training model of medical students in Beijing-Tianjin-Hebei colleges and universities from the perspective of mixed big data is proposed. This article chooses to conduct research by conducting a survey on the entrepreneurial willingness of postgraduates in universities in the Beijing-Tianjin-Hebei and its influencing factors. From the perspective of master students from five universities in the Beijing-Tianjin-Hebei region, the selection of personal background information, entrepreneurial attitude, subjective norms, perceived behavior control, and entrepreneurship education index factors establish the index system of the influencing factors of graduate students' entrepreneurial intention and use the TPB theoretical model and SPSS data statistics and other tools to analyze the obtained data results. The results show that gender, major, place of origin, part-time experience, and entrepreneurial experience of relatives and friends correspond to 0.000, 0.000, 0.482, 0.172, 0.003, and 0.004, respectively. It can be seen that the independent variables, major and place of origin, have no statistical significance. In the statistics of college students' willingness to start a business, 23.33% of the students said "nothing at all," and 27.8% of the students said "thought, but would not start a business." It can be seen that entrepreneurial attitude, subjective norm, and perceived behavioral control all positively affect entrepreneurial willingness, and only learning ability, opportunity grasping ability, self-recognition ability, and decisiveness have a significant effect on entrepreneurial willingness.

1. Introduction

With the continuous development of medicine, medical education has been paid more and more attention. Especially under the influence of the epidemic situation, the promotion and development of medicine is particularly important. It is against this background that China has put forward the "healthy China" strategy. In the "healthy China" strategy, it is very important to do a good job in cultivating students' entrepreneurial spirit. In particular, the employment form of medical students is becoming more and more severe. Some foreign medical universities attach great importance to the research of entrepreneurial strategy and entrepreneurial environment, and have presented a mature mode in the cultivation of entrepreneurial ability [1]. At present, China's health industry only accounts for 4%~5% of GDP, which is far lower than the proportion of 15% in the United States and 10% in Japan and Canada. According to the characteristics of medical disciplines, it is a problem that many medical universities need to explore and face to carry out mass entrepreneurship and innovation education [2]. Since 2015, more than 23 policy documents have been issued for "mass entrepreneurship and innovation." However, compared with other majors, medical students' entrepreneurial endogenetic motivation and practical ability are slightly lacking in the practice of mass entrepreneurship and

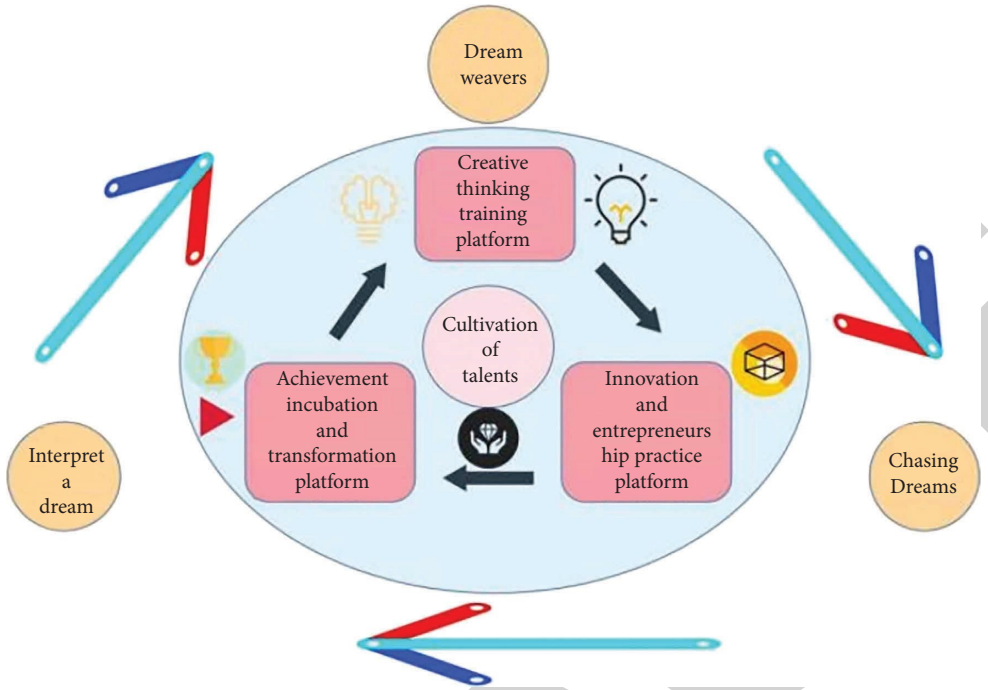

Figure 1: Talent cultivation turns to thinking.

innovation projects [3]. At present, there are many documents on the "healthy China" strategy in the field of higher education, but under its strategic background, there is less training on the entrepreneurial spirit of medical students. Most medical colleges and universities do not have in-depth entrepreneurial education on the integration of the "great health" industry. Therefore, through the innovative reform mode of "government, enterprise, university, and research," we will accelerate the development of the medical and health industry [4]. Taking the opportunity of vigorously developing medical and health undertakings and the goal of promoting students' entrepreneurship, major medical colleges and universities emphasize the cultivation of students' entrepreneurial awareness and knowledge application ability and, at the same time, link with the great health industry. Through improvement and innovation in the training mode, more entrepreneurial talents will be sent to the society [5].

2. Literature Review

Healthy China is a development strategy, and people's health is an important symbol of national prosperity and national prosperity. It is necessary to improve the national health policy and provide the people with all-round and full-cycle health services [6]. Since we want to promote the development of students' Entrepreneurship in the actual teaching environment and realize the implementation of the "healthy China" strategy, we need to understand the current situation of medical students' entrepreneurship training in the current actual teaching work. In this way, we can effectively realize the growth and promotion of students in the actual teaching activities. To cultivate talents, we must first determine a "dream" and carry out three stages of dream building, dream chasing and dream realization around the dream, and carry out training in stages and platforms, as shown in Figure 1.

Entrepreneurship education has also been well developed in foreign medical colleges. Foreign medical colleges and universities believe that interdisciplinary cooperation is crucial to the innovation of the healthcare industry, especially in transforming medical technology into effective clinical solutions. Therefore, almost all the courses in foreign medical colleges will be interdisciplinary. The courses include medical, engineering, science, business, or law majors. The concepts related to innovation and their applications in entrepreneurship, leadership, technology, medical care system, and pharmaceutical business will be taught [7]. A mixed method study of American idiopathic medical schools found that the number of entrepreneurial education programs in medical education was small but growing rapidly. These courses improve students' readiness for today's complex healthcare environment by covering novel educational topics with active and interdisciplinary pedagogy [8]. From 2007 to 2016, the entrepreneurship program began to be popular in the American College of allopathic medicine, forming an entrepreneurship education curriculum with seven education themes (innovation, entrepreneurship, technology, leadership, healthcare system, medical business, and enhanced adaptability) and two teaching methods themes (active learning and cross-disciplinary teaching) [9]. The University of Michigan (UM) School of Medicine designs and implements entrepreneurship programs to help students explore the business potential of medical innovation, support the establishment of entrepreneurial teams around the project, provide entrepreneurial mentors for team members, and provide tailor-made entrepreneurial education courses. Learning objectives are best provided in

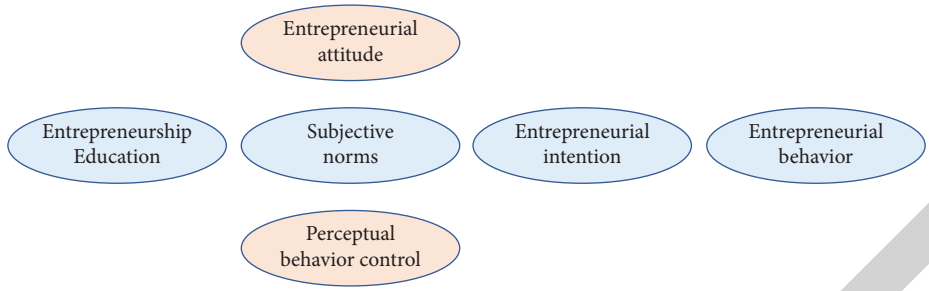

Figure 2: Framework of influencing factors of graduate students' entrepreneurial intention.

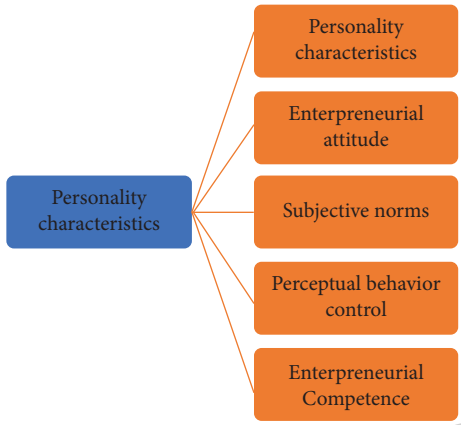

Figure 3: Model of influencing factors on entrepreneurial intention of medical college students.

the form of seminars/teaching. Teaching and seminars can provide more interactive teaching experience than lecture-based learning, increase communication between teachers and students, and promote students' active participation by holding entrepreneurial seminars, developing entrepreneurial ideas, forming team-led business plans and demonstrations, and developing skills including peer assessment, peer development, communication, critical assessment, creative thinking, problem-solving, and computing skills, to effectively promote and improve the innovative spirit and entrepreneurial skills of medical students.

Since our country put forward the entrepreneurship strategy, the major universities in the country have started to carry out the entrepreneurship education reform one after another, and more and more medical colleges are devoted to entrepreneurship education. There are certain differences and professional tendencies in the process of undertaking education in major universities. Different from comprehensive universities or other engineering classes, medical colleges lack resources for cross-learning due to their strong academic and professional characteristics. Moreover, most colleges and universities have misunderstandings in the entrepreneurship education of medical students, which is not significantly different from the innovation education of nonmedical students. The aim is to train students into big entrepreneurs, and there is insufficient correlation with the training objectives and employment characteristics of medical students. In addition, few medical colleges offer entrepreneurship courses for all students alone. Some medical colleges only set this course as an optional course of 2-3 class hours, with low credits, which is difficult to attract students' attention [10]. Although some colleges and universities have set up relevant courses, entrepreneurship education is only limited to theoretical courses and formalized entrepreneurship competitions, and there is no mature curriculum system. In addition, most of the teachers engaged in entrepreneurship education in medical colleges do not come from professional fields, with a single form of education, lack of entrepreneurial practice experience, and few innovation achievements [11].

3. The Influencing Factor Model of Entrepreneurial Intention Based on Plan Following

3.1. TPB's Entrepreneurial Education Factor Framework for College Students. Entrepreneurship education, as a medium for disseminating entrepreneurial knowledge and skills, cannot directly affect the entrepreneurial intention of students, but can exert influence by cultivating students' entrepreneurial attitude and individual characteristics. Entrepreneurship education can effectively cultivate and change the entrepreneurial attitude of college students, and social psychology research also shows that individual behavior and attitude can be effectively changed through practice and cognitive level, communication, and example encouragement. Therefore, based on the TPB theoretical framework, this article adds entrepreneurship education as an influencing factor. In the case of discussing how much entrepreneurship education occupies in the formation of postgraduate entrepreneurship intention, it also analyzes what kind of entrepreneurship education can maximize the driving effect in the formation of postgraduate entrepreneurship intention [12]. It is assumed that entrepreneurship education has an effect on entrepreneurial intention by changing individual entrepreneurial attitude, subjective norms, and perceived behavior control. The following theoretical factor framework is constructed as shown in Figure 2.

Based on the theory of planned behavior, this article introduces two variables: personality characteristics and entrepreneurial competence. Based on the above research hypotheses, it builds a perfect influencing factor model of Medical College Students' entrepreneurial willingness [13],

Table 1: Basic information of samples.

Category	Features	Quantity	Proportion (%)
Major	Medical science	291	29.82
	Pharmacy	206	21.11
	Nursing	142	14.55
	Psychology	116	11.89
	Management	160	16.39
	Engineering	61	6.24
Educational system	Four-year system	685	70.18
	Five-year system	291	29.82
Gender	Male	282	28.89
	Female sex	694	71.12
Place of origin	Town	461	47.38
	Countryside	512	52.62
Part-time experience	No	255	26.18
	Yes	719	73.82
Personal entrepreneurial experience	Never	886	91.34
	Once	76	7.84
	Starting a business	8	0.83
Entrepreneurial experience of relatives and friends	Never	263	27.11
	Once	482	49.69
	Starting a business	225	23.20
	Not at all	227	23.33
Entrepreneurial intention	Have thought about it, can try it if have a chance	467	48.01
	Have thought about it, but will not start a business	271	27.85
	Starting a business	8	0.83

which is in line with the current background environment of mass entrepreneurship. See Figure 3.

3.2. Questionnaire Survey and Demonstration

3.2.1. Sample Determination. The subjects of this study are junior undergraduates from five schools in Beijing, Tianjin, and Hebei. Their majors include medicine (traditional Chinese medicine and clinical medicine), pharmacy (traditional Chinese medicine and pharmacy), nursing, psychology, management (marketing and public utilities management), and engineering (medical information engineering).

The questionnaire survey was conducted by using the convenient sampling method and the combination of online and offline. A total of 1000 questionnaires were distributed, 988 were recovered, 12 invalid questionnaires were excluded, and 976 valid questionnaires were left, with an effective recovery rate of 97.60%. EpiData 3.1 was used for data entry, and SPSS 21.0 was used for data processing. Single choice questions are described and analyzed by frequency and percentage, and multichoice questions are described and analyzed by the percentage of respondents and the percentage of responses. See Table 1 for details.

3.2.2. Statistical Methods. EpiData 3.1 was used for data entry, and SPSS 21.0 was used for data processing. Cronbach's a was used to analyze the internal consistency of the questionnaire, factor analysis was used to test the structural validity of the questionnaire, and item domain correlation analysis was used to test the collective validity and discrimination validity of the questionnaire. According to the central limit theorem, when the sample size n gradually increases (usually requires $n > 30$), the probability distribution of the sample mean will approximately follow the normal distribution regardless of the overall distribution. The sample size of this study is about 1000, which has reached the sample requirements of the central limit theorem and can be regarded as approximately following the normal distribution. Therefore, the measurement data are statistically described by $(x + s)$, and the count data are described by component ratio or percentage (%). When the variance is the same, the two independent samples t-test is used for two groups of measurement data, and one-way ANOVA is used for multiple groups of data to analyze the entrepreneurial willingness and entrepreneurial competence of medical college students with different demographic characteristics. When the variance is not uniform, the rank sum test is used for analysis. Finally, we use multiple linear regression to analyze the influencing factors of entrepreneurial intention.

3.2.3. Descriptive Statistics. As shown in Tables 2 and 3, the overall score of entrepreneurial intention of the students of the two medical colleges is 2.54 ± 0.63, which is lower than the survey results of Ge Ruolan based on 290 medical undergraduates of Changsha Medical College in 2017 (2.94 ± 0.32). The scores of the four dimensions in the entrepreneurial willingness scale based on the TPB theory are 2.99 ± 0.78, 2.98 ± 0.75, 2.05 ± 0.76, and 2.30 ± 0.80, respectively, with an average score of less than 3. Among them, the lowest score is perceived behavior control, and the highest

Table 2: Scores of entrepreneurial intention of medical college students.

Dimension	Entry	n (%)					Score ($\overline{x} \pm s$)
		Totally disagree	Relatively disagree	Commonly	Relatively agree	Totally agree	
Entrepreneurial attitude ($n = 974$)	AB1	112 (11.5)	149 (15.3)	497 (51.2)	182 (18.7)	33 (3.4)	2.87 ± 0.96
	AB2	88 (9.1)	143 (14.7)	456 (46.8)	253 (26.0)	34 (3.5)	3.00 ± 0.95
	AB3	58 (6.0)	149 (15.3)	525 (53.9)	211 (21.7)	31 (3.2)	3.01 ± 0.86
	AB4	44 (4.5)	96 (9.9)	333 (34.3)	406 (41.8)	92 (9.5)	3.42 ± 0.95
	AB5	107 (11.1)	285 (29.2)	453 (46.4)	105 (10.8)	23 (2.4)	2.64 ± 0.90
	Totality						2.99 ± 0.78
Subjective norms ($n = 973$)	SN1	77 (7.9)	217 (22.3)	506 (52.1)	140 (14.4)	32 (3.3)	2.83 ± 0.89
	SN2	63 (6.5)	155 (15.9)	515 (52.9)	206 (21.2)	34 (3.5)	2.99 ± 0.88
	SN3	62 (6.4)	165 (17.0)	534 (54.9)	177 (18.2)	35 (3.6)	2.96 ± 0.87
	SN4	69 (7.1)	128 (13.2)	427 (43.9)	289 (297)	60 (6.2)	3.15 ± 0.97
	Totality						2.98 ± 0.75
Perceptual behavior control ($n = 974$)	PBC1	278 (28.5)	415 (42.6)	222 (22.8)	54 (5.5)	5 (0.5)	2.07 ± 0.88
	PBC2	297 (306)	406 (41.8)	218 (22.4)	45 (4.6)	6 (0.6)	2.03 ± 0.88
	PBC3	263 (26.9)	423 (43.3)	230 (23.6)	49 (5.0)	8 (0.8)	2.09 ± 0.88
	PBC4	411 (42.3)	357 (36.8)	169 (17.4)	31 (3.2)	3 (0.3)	1.82 ± 0.85
	PBC5	283 (29.1)	360 (37.0)	285 (29.3)	42 (4.3)	3 (0.3)	2.10 ± 0.88
	PBC6	300 (30.8)	292 (30.0)	263 (27.0)	99 (10.2)	20 (2.1)	2.23 ± 1.06
	Totality						2.05 ± 0.76
Entrepreneurial intention (n-974)	E11	190 (19.5)	292 (30.0)	341 (35.0)	130 (13.3)	21 (2.2)	2.49 ± 1.02
	EI2	145 (14.9)	256 (26.3)	368 (37.9)	173 (17.8)	30 (3.1)	2.68 ± 1.03
	EI3	278 (28.5)	409 (42.1)	230 (23.6)	50 (5.1)	7 (0.7)	2.07 ± 0.89
	EI4	258 (265)	349 (35.8)	292 (30.0)	62 (6.4)	13 (1.3)	2.20 ± 0.95
	EI5	314 (32.2)	348 (35.7)	261 (26.8)	44 (4.5)	7 (0.7)	2.06 ± 0.91
	Totality						2.30 ± 0.80
Overall scale							2.54 ± 0.63

score is entrepreneurial attitude. The overall score of entrepreneurial competence of the students of the two medical colleges is 3.18 ± 0.52. Except for "learning ability" and "opportunity grasping ability," the scores of other variables are higher than 3. Among them, the highest score was "self-cognitive ability" (3.73 ± 0.66), and the lowest score was "opportunity grasping ability" (2.61 ± 0.82).

3.3. Reliability and Validity Test of the Scale

3.3.1. Reliability Test of the Scale. The Rasch model in the item response theory is applicable to the dichotomous response data. It is a special case of the single parameter model in the item response theory. Its probability is derived from the relationship between the subject's ability and the difficulty of the topic. Combining the subject's ability θ_i with the difficulty β_j of the item, a difference formula based on $(\theta_i - \beta_j)$ is proposed. The ratio of coding "correct/incorrect" or "yes/no" is

$$\ln\left[\frac{\Pr\left(y_{ij} = 1|\theta_i, \beta_j\right)}{1 - \Pr\left(y_{ij} = 1|\theta_i, \beta_j\right)}\right] = \theta_i - \beta_j, \tag{1}$$

where $\Pr\left(y_{ij} = 1|\theta_i, \beta_j\right)$ represents the probability that subject i evaluates item j as 1 or 0. θ_i represents the intrinsic ability of subject i; β_j represents the difficulty of item j, and there is a 50% probability that the answer is correct. Then, the formula of the two classification Rasch model is

$$P_r\left(y_{ij} = 1|\theta_i, \beta_j\right) = \log it^{-1}\left(\theta_i - \beta_j\right) = \frac{1}{1 + \exp\left(-\left(\theta_i - \beta_j\right)\right)}. \tag{2}$$

When the model contains the discrimination parameter a_j, which represents the discrimination of the item J, the formula can be rewritten as

$$P_r\left(y_{ij} = 1|\theta_i, \beta_j, a_j\right) = \frac{\exp\left[a_j\left(\theta_i - \beta_j\right)\right]}{1 + \exp\left(-\left(\theta_i - \beta_j\right)\right)}. \tag{3}$$

The partial credit model (PCM) constructed by the master is a special model when GPCM assumes that the discrimination parameter of each item is 1 ($a_j = 1$), which is applicable to multiclassification response data:

$$P_r\left(y_{ij} = y|\theta_i, \beta_{jh}\right) = \frac{\exp\sum_{h=0}^{k} a_j\left(\theta_i - \beta_{jh}\right)}{\sum_{k=0}^{m_j} \exp\sum_{h=0}^{k}\left(\theta_i - \beta_{jh}\right)}. \tag{4}$$

The PCM is extended to the generalized segment scoring model (GPCM). Since the project differentiation parameter is introduced into the model, GPCM brings more information than PCM:

$$P_r\left(y_{ij} = y|\theta_i, a_j, \beta_{jh}\right) = \frac{\exp\sum_{h=0}^{k} a_j\left(\theta_i - \beta_{jh}\right)}{\sum_{k=0}^{m_j} \exp\sum_{h=0}^{k} a_j\left(\theta_i - \beta_{jh}\right)}, \tag{5}$$

Table 3: Scores of entrepreneurial competence of medical college students.

Dimension	Entry	n (%)					Score ($\overline{x} \pm s$)
		Totally disagree	Relatively disagree	Commonly	Relatively agree	Totally agree	
Learning ability ($n = 973$)	A1	149 (15.3)	291 (29.9)	382 (39.3)	130 (13.4)	21 (2.2)	2.57 ± 0.97
	A2	122 (12.5)	208 (21.4)	420 (43.3)	201 (20.7)	22 (2.3)	2.79 ± 0.98
	A3	153 (15.7)	317 (32.6)	394 (40.5)	92 (9.5)	16 (1.6)	2.49 ± 0.92
	A4	97 (10.1)	164 (16.9)	375 (386)	293 (30.1)	43 (4.4)	3.02 ± 1.02
	Totality						2.72 ± 0.82
Ability to grasp opportunities ($n = 972$)	B1	117 (12.1)	269 (27.7)	443 (45.6)	127 (13.2)	15 (1.5)	2.64 ± 0.91
	B2	126 (13.2)	286 (29.5)	415 (42.8)	130 (13.4)	12 (1.2)	2.60 ± 0.92
	B3	129 (13.3)	289 (29.7)	413 (42.5)	131 (13.5)	10 (1.0)	2.59 ± 0.92
	B4	120 (12.4)	290 (29.9)	412 (42.5)	132 (13.6)	15 (1.5)	2.62 ± 0.92
	Totality						2.61 ± 0.82
Interpersonal skills ($n = 972$)	C1	36 (3.7)	108 (11.1)	408 (42.0)	358 (36.8)	62 (6.4)	3.31 ± 0.89
	C2	48 (4.9)	165 (17.0)	386 (39.7)	319 (32.8)	54 (5.6)	3.17 ± 0.94
	C3	38 (3.9)	167 (17.2)	416 (42.8)	309 (31.8)	42 (4.3)	3.15 ± 0.89
	C4	22 (2.3)	107 (11.0)	377 (38.8)	401 (41.3)	64 (6.6)	3.39 ± 0.85
	C5	25 (2.6)	109 (11.2)	359 (37.0)	411 (42.3)	67 (6.9)	3.40 ± 0.87
	Totality						3.28 ± 0.74
Planning ability (n-973)	D1	16 (1.6)	59 (6.0)	308 (31.7)	519 (53.4)	70 (7.2)	3.58 ± 0.78
	D2	20 (2.1)	63 (6.5)	378 (38.8)	450 (46.2)	62 (6.4)	3.48 ± 0.79
	D3	21 (2.2)	61 (6.3)	339 (34.8)	488 (50.2)	64 (6.6)	3.53 ± 0.80
	Totality						3.53 ± 0.72
Supply integration capability (n-973)	E1	74 (7.6)	236 (24.3)	443 (45.6)	193 (19.9)	26 (2.7)	2.86 ± 0.91
	E2	50 (5.1)	139 (14.3)	382 (39.3)	347 (357)	55 (5.7)	3.22 ± 0.94
	E3	37 (3.8)	140 (14.4)	408 (42.0)	324 (33.3)	63 (6.5)	324 ± 0.91
	E4	46 (4.7)	113 (11.6)	365 (37.6)	369 (38.0)	79 (8.1)	3.33 ± 0.95
	Totality						3.16 ± 0.77
	F1	14 (1.4)	34 (3.5)	274 (282)	538 (55.4)	111 (114)	3.72 ± 0.77
	F2	15 (1.5)	40 (4.1)	275 (28.3)	536 (551)	106 (10.9)	3.70 ± 0.78
	F3	10 (1.0)	35 (3.6)	272 (28.0)	548 (56.4)	107 (11.0)	3.73 ± 0.74
	F4	11 (1.1)	34 (3.5)	249 (256)	557 (57.3)	121 (12.4)	3.76 ± 0.75
	Totality						3.73 ± 0.66
Self-cognitive ability (n-972)	G1	22 (2.3)	82 (8.4)	388 (40.0)	408 (42.0)	71 (7.3)	3.44 + 0.84
	G2	22 (2.3)	100 (103)	356 (36.7)	408 (42.0)	85 (88)	3.45 ± 0.88
	G3	34 (3.5)	124 (12.8)	386 (39.9)	346 (357)	78 (81)	3.32 ± 0.92
	Totality						3.40 ± 0.73
Decisiveness (n-970)	H1	50 (5.2)	195 (20.1)	486 (50.2)	204 (21.0)	35 (3.6)	2.98 ± 0.87
	H2	36 (37)	173 (17.8)	451 (46.5)	269 (27.7)	41 (4.2)	3.11 ± 0.87
	H3	41 (4.2)	186 (19.2)	447 (46.2)	248 (25.6)	48 (4.9)	3.08 ± 0.90
	Totality						3.06 ± 0.75
Totality							3.18 ± 0.52

Table 4: Reliability analysis of the scale.

Gauge	Dimension	Cronbach's coefficient	Number of lowest scoring cases (%)	Number of highest scoring cases (%)
Entrepreneurial intention	Totality	0.941		
	Entrepreneurial attitude	0.902	32 (3.3)	10 (1.0)
	Subjective norms	0.849	42 (4.3)	12 (1.2)
	Perceptual behavior control	0.918	160 (16.4)	1 (0.1)
	Entrepreneurial intention	0.887	106 (10.9)	2 (0.2)
Entrepreneurial competence	Population	0.934		
	Learning ability	0.862	70 (7.2)	9 (0.9)
	Ability to grasp opportunities	0.923	90 (9.3)	4 (0.5)
	Interpersonal skills	0.886	15 (1.5)	23 (2.4)
	Planning ability	0.895	13 (1.3)	40 (4.1)
	Resource integration capability	0.850	27 (2.8)	15 (1.5)
	Self-cognitive ability	0.889	9 (0.9)	47 (4.8)
	Willpower	0.777	10 (1.0)	29 (3.0)
	Decisiveness	0.806	24 (2.5)	19 (1.9)

Table 5: Factor analysis results of the entrepreneurial willingness scale.

Entry	Factor 1	Factor 2	Factor 3
PBC4	0.881	0.079	0.068
PBC3	0.849	0.140	0.164
PBC2	0.848	0.118	0.192
PBC1	0.814	0.136	0.130
PBC5	0.784	0.202	0.188
PBC6	0.640	0.288	0.183
EI5	0.631	0.451	0.081
EI3	0.622	0.461	0.050
EI4	0.579	0.552	0.091
AB1	0.211	0.812	0.264
AB2	0.165	0.788	0.289
AB4	0.014	0.765	0.282
AB5	0.316	0.720	0.202
AB3	0.167	0.687	0.278
EI2	0.369	0.681	0.207
EI1	0.489	0.528	0.112
SN3	0.204	0.281	0.847
SN2	0.179	0.299	0.845
SN1	0.224	0.172	0.829
SN4	0.047	0.251	0.571

wherein the parameter a_j is expressed as the potential health status or quality of life of the subject, the inherent health status or quality of life intensity measured by the response category threshold, and the discrimination of items under different potential health statuses.

3.3.2. Generalized Segment Scoring Model under Bayesian Theory. Definition $y = (y_{i1}, y_{i2}, \ldots, y_{ij})$ represents the observed item response vector, $\theta = (\theta_1, \theta_2, \ldots \theta_N)$ represents the subject's ability parameter, and the parameter vector of item j is $a = a_j$, $\beta = \beta_{jh}$. The likelihood function of the observed response vector is

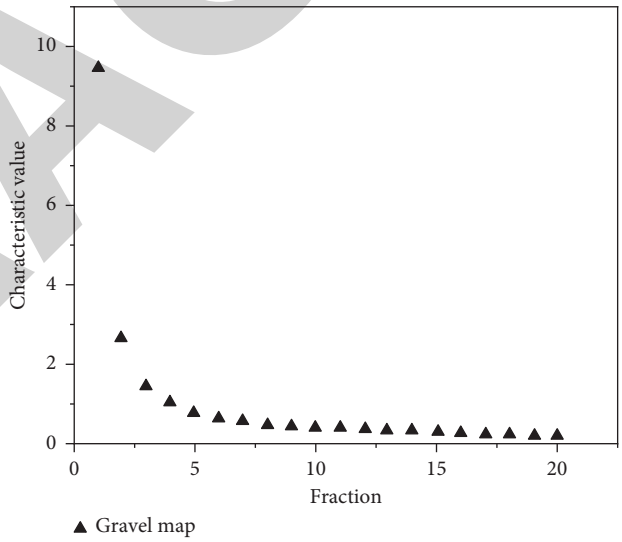

Figure 4: Factor analysis gravel chart of the entrepreneurial willingness scale.

$$\varsigma(y|\theta, a, \beta) = \prod_i \prod_j \prod_h \Pr\left(y_{ij} = y|\theta_i, a_j, \beta_{jh}\right). \quad (6)$$

N and $\log N$ represent normal distribution and log-normal distribution, respectively, and a is non-negative. The priori of parameter β is a priori with relatively no information. The distribution of latent trait θ was not set as standard normal. Instead, set the super priori of μ as standard normal and the super priori of μ as no information priori. The super priori of σ^2 obeys the inverse gamma distribution with an average value of 1.0 and a variance of 2 (when the shape rate is −0.5), which places most of the parameter values of β in the commonly observed [−3, +3] limits. Then, the joint posterior distribution is

Table 6: Factor analysis results of the entrepreneurial competence scale.

Entry	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
C2	0.852	0.088	0.111	0.167	0.055	0.165	0.050
C1	0.825	0.064	0.152	0.129	0.078	0.134	0.130
C3	0.814	0.126	0.107	0.092	0.060	0.140	0.050
C5	0.674	0.102	0.246	0.106	0.180	0.049	0.255
C4	0.667	0.130	0.203	0.094	0.150	0.020	0.262
B2	0.120	0.847	0.090	0.097	0.088	0.259	0.043
B3	0.092	0.835	0.062	0.133	0.104	0.242	0.048
B1	0.109	0.812	0.061	0.103	0.142	0.333	0.013
B4	0.155	0.777	0.025	0.140	0.136	0.295	0.114
F3	0.168	0.059	0.824	0.171	0.082	0.040	0.145
F2	0.165	0.062	0.793	0.146	0.151	0.095	0.208
F4	0.166	0.079	0.779	0.192	0.100	0.060	0.176
F1	0.226	0.065	0.716	0.118	0.196	0.042	0.258
H3	0.084	0.212	0.034	0.736	0.152	0.037	0.212
H2	0.268	0.188	0.109	0.676	0.111	0.098	0.175
G3	0.116	−0.081	0.364	0.668	0.135	0.188	−0.027
H1	0.092	0.414	0.103	0.654	0.167	0.002	0.167
G2	0.087	0.155	−0.091	0.430	0.569	0.220	0.159
G1	0.004	0.121	0.381	0.492	0.251	0.070	0.143
E2	0.084	0.059	0.153	0.126	0.847	0.060	0.097
E3	0.161	0.090	0.172	0.230	0.784	0.110	0.147
E1	0.092	0.269	−0.003	0.166	0.718	0.158	0.127
E4	0.114	0.089	0.260	0.150	0.689	0.108	0.153
A2	0.143	0.319	0.054	0.106	0.088	0.792	0.078
A1	0.131	0.268	0.058	0.145	0.074	0.775	0.007
A4	0.089	0.169	0.139	0.005	0.146	0.736	0.125
A3	0.131	0.380	0.013	0.117	0.104	0.734	0.033
D2	0.210	0.077	0.288	0.148	0.169	0.062	0.794
D3	0.213	0.089	0.268	0.183	0.202	0.129	0.777
D1	0.253	0.048	0.276	0.195	0.186	0.077	0.751

$$p(\theta,\alpha,\beta|y)\infty p(\alpha,\beta)p(\theta|\alpha,\beta)p(y|\alpha,\beta) = p(a)p(\beta)p(\theta|\alpha,\beta)\iota(y|\theta,\alpha,\beta). \quad (7)$$

The conditional posterior is proportional to the prior number likelihood ratio of the data. Then, the conditional probability distribution of θ,α,β is

$$p(\theta|y,\alpha,\beta)\infty p(\theta)\iota(y|\theta,\alpha,\beta),\quad p(a|y,\theta,\beta)\infty p(a)\iota(y|\theta,\alpha,\beta),\quad p(\beta|y,\alpha,\beta)\infty p(\beta)\iota(y|\theta,\alpha,\beta). \quad (8)$$

3.4. Consistency Test of Inspection Scale

3.4.1. Reliability Analysis of the Scale. GPCM was used to test the internal consistency reliability of the scale. The larger the coefficient, the higher the internal consistency of the variables, indicating that the measurement items between the variables have a good correlation. At present, the common criteria in academic circles are Cronbach's a is greater than 0.90, and then, the reliability of this test or scale is excellent; if Cronbach's a is between 0.80 and 0.90, the reliability is acceptable; if Cronbach's a is between 0.70 and 0.80, it needs to be revised, but it does not lose value; and if Cronbach's $a < 0.7$, the scale needs to be redesigned. The reliability analysis results of each part of the questionnaire are shown in Table 4. The reliability of each dimension of the TPB scale and the entrepreneurial competence scale is above 0.78. It can be seen that both scales have high reliability and high reliability.

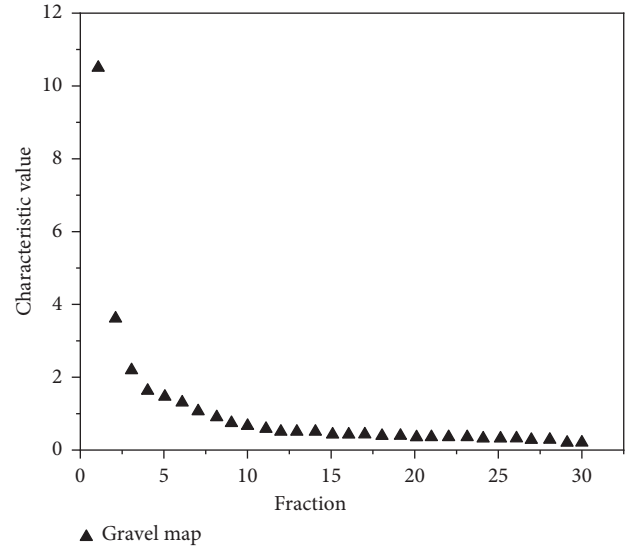

Figure 5: Factor analysis gravel diagram of the entrepreneurial competence scale.

Ceiling effect and floor effect refer to that most scores are concentrated at the very high or low end. These two

Table 7: Correlation coefficient matrix between demographic variables and entrepreneurial willingness.

	X_1 gender	X_2 major	X_3 place of origin	X_4 part-time experience	X_5 entrepreneurial experience of relatives and friends	Y_1 entrepreneurial intention
X_1	1					
X_2	0.012	1				
X_3	0.058*	−0.121*	1			
X_4	−0.136**	0.009	0.203**	1		
X_5	−0.015	−0.075**	−0.003	0.032	1	
Y_1	0.101***	−0.033	0.074*	0.094**	0.095**	1

Table 8: Regression analysis results of demographic variables on entrepreneurial willingness.

Variable	Nonstandard coefficient		Normalized regression coefficient	t	P
	Coefficient (B)	Standard error			
Constant	1.391	0.192		7.250	<0.000
X_1 gender	0.199	0.056	0.114	3.535	<0.000
X_2 major	−0.038	0.054	−0.023	−0.703	0.482
X_3 place of origin	0.071	0.053	0.045	1.368	0.173
X_4 part-time experience	0.176	0.059	0.098	2.978	0.003
X_5 entrepreneurial experience of relatives and friends	0.165	0.057	0.092	2.906	0.004

indicators reflect the important characteristics of score distribution. Calculate the proportion of people with the lowest and highest scores on the entrepreneurial willingness scale and entrepreneurial competence scale, respectively. If the scores of 1% of the subjects reach the limit (the highest score or the lowest score), there will be ceiling effect or floor effect, respectively. 15% of the floor or ceiling effect is considered acceptable. As shown in Table 4, only 16.4% of the cases with the lowest score in the perceived behavior control dimension in the entrepreneurial willingness scale have the floor effect. The proportion of the lowest score cases and the highest score cases in each dimension of the entrepreneurial competence scale are less than 15%, and there is no ceiling effect and floor effect.

3.4.2. Entrepreneurial Willingness Scale Based on TPB Theory. Table 5 and Figure 4 show the entrepreneurial willingness scale and the gravel chart. It can be seen that the KMO value is 0.942 greater than 0.7, Bartlett's sphericity test is approximately chi square 14372.737, the degree of freedom is 190, and the significance is 0.000, indicating that it is suitable for factor analysis. The principal component analysis is used for the orthogonal rotation of each item of the entrepreneurial willingness scale, and three common factors are extracted according to the feature root greater than 1 [14]. As shown in Table 5, PBC1~PBC6 have a high load in factor 1 and can be named perceptual behavior control factor; AB1~AB5 have a high load in factor 2 and can be named entrepreneurial attitude factor; SN1~SN4 have a higher load in factor 3 and can be named subjective criterion factor; EI1 and EI2 have higher loads in factor 2, and EI3~EI5 have higher loads in factor 1. The extracted common factors are basically consistent with the dimensions of the scale, and the cumulative contribution rate is 67.527%, indicating that the entrepreneurial intention scale has good structural validity.

3.4.3. Entrepreneurial Competence Table. Table 6 and Figure 5 are the entrepreneurial competence table and gravel chart. The KMO value of the entrepreneurial competence scale is 0.927, which is greater than 0.7. The sphericity test of Bartlett is approximately chi square 18390.291, the degree of freedom is 435, and the significance is 0.000, which indicates that it is suitable for factor analysis. The principal component analysis is used for the orthogonal rotation of each item of the entrepreneurial competence scale, and seven common factors are extracted according to the feature root greater than 1. As shown in Table 6, C1~C5 have a high load in factor 1 and can be named interpersonal relationship processing ability factor; B1~B4 have a higher load in factor 2, which can be named opportunity grasping ability factor; F1~F4 have a high load in factor 3 and can be named self-cognitive ability factor; H1~H3 has a high load in factor 4 and can be named decisive factor; E1~E4 have a higher load in factor 5 and can be named resource integration capability factor; A1~A4 have a higher load in factor 6, which can be named learning ability factor; D1~D3 have a higher load in factor 7, which can be named planning capacity factor; and G1~G3 also show a high load in factor 4 [15]. The extracted common factors are basically consistent with the dimensions of the scale, and the cumulative contribution rate is 71.743%, indicating that the entrepreneurial competence scale has good structural validity.

4. Analysis of Influencing Factors of Entrepreneurial Intention of Medical College Students

Multiple linear regression was used to analyze the influencing factors of Medical College Students' entrepreneurial intention. First, the ordered or disordered multiclassification variables are transformed into two classification variables, that is, majors: 1 = medical related (medicine, pharmacy,

Table 9: Regression analysis results of demographic variables on entrepreneurial willingness.

Variable	Nonstandard coefficient		Normalized regression coefficient	t	P
	Coefficient (B)	Standard error			
Constant	1.408	0.165		8.545	<0.000
X_1 gender	0.206	0.056	0.117	3.665	<0.000
X_4 part-time experience	0.192	0.058	0.107	3.336	0.001
X_5 entrepreneurial experience of relatives and friends	0.167	0.057	0.093	2.952	0.002

Table 10: Correlation coefficient matrix of entrepreneurial attitude, subjective norms, perceived behavior control, and entrepreneurial willingness.

	Entrepreneurial attitude	Subjective norms	Perceptual behavior control	Entrepreneurial intention
AB	1			
SN	0.572***	1		
PBC	0.454***	0.392***	1	
EI	0.646***	0.473***	0.685***	1

nursing) and 2 = nonmedical related (psychology, management, engineering); and entrepreneurial experience of relatives and friends: 1 = no entrepreneurial experience (never before) and 2 = entrepreneurial experience (ever and now) [16].

Secondly, the applicable conditions of multiple linear regression are analyzed, including the following:

(1) There is a linear relationship between the independent variable and the dependent variable. It is judged by drawing a scatter diagram.

(2) Normality of residuals. It is judged by drawing standardized residual histogram and normal probability diagram ($P - P$ diagram).

(3) Equivariance of residuals. By plotting the scatter plot of the predicted value of the standardized residual, if the standardized residual fluctuates below the zero level without obvious regularity, it can be judged that y satisfies the assumption of equal variance.

(4) Eliminate influential cases. It is generally believed that if the absolute values of standardized residuals and studentized residuals are less than 3, there is no strong influence point in the sample. However, the removal of strong influence points needs to be carefully selected in combination with professional knowledge.

(5) There should be no collinearity between independent variables. It is generally believed that if tolerance (TOL) < 0.1, variance inflation factor (VIF) > 5, and condition index (CI) > 30, there is severe collinearity.

4.1. Regression Analysis of Demographic Characteristics on Entrepreneurial Intention. Taking entrepreneurial willingness as the dependent variable and demographic characteristics as the independent variable, multiple linear regression analysis was conducted by using the forced entry method, and the regression equation is established as follows:

$$Y_1 = b_0 + b_{11}X_1 + B_{12}X_2 + b_{13}X_3 + b_{14}X_4 + b_{15}X_5, \quad (9)$$

where Y_1 represents the entrepreneurial intention, X_1 represents the gender, X_2 represents the major, X_3 represents the place of origin, X_4 represents the part-time experience, X_5 represents the entrepreneurial experience of relatives and friends, and $b_{,i}$ represents the regression coefficients of various items.

There is a linear relationship between the independent variable and the dependent variable by plotting the scatter plot. The residual histogram and the normal probability diagram (P-P diagram) show that the residual is normal. The residual determined by the scatter plot of the normalized residual prediction value satisfies the isovariance [17]. As shown in Table 7, the minimum and maximum values of the standardized residuals for the correlation between demographic variables and entrepreneurial willingness are −2.011 and 3.779, respectively, and the minimum and maximum values of the studentized residuals are −2.016 and 3.797, respectively.

The test results of the goodness of fit of the model show that the complex correlation coefficient R is 0.183, the determination coefficient R^2 is 0.033, and the adjusted R^2 value is 0.028, indicating that personality characteristics can explain about 3.3% of entrepreneurial intention. The regression equation was statistically tested by ANOVA: regression regression, degree of freedom = 5, SS regression = 20.507, and Ms regression = 4.101; residual degree of freedom = 963, SS residual = 592.377, and Ms regression = 0.615. The F value is 6.667, and the P value is < 0.000, which indicates that the regression equation is meaningful. As shown in Table 8, gender, major, place of origin, part-time experience, and entrepreneurial experience of relatives and friends are 0.000, 0.000, 0.482, 0.172, 0.003, and 0.004, respectively. It can be seen that the independent variables, major and place of origin, have no statistical significance. Then, remove the two variables of major and place of origin, and do multiple regression of gender, part-time experience, and entrepreneurial experience of relatives and friends. The results are shown in Table 8.

Table 11: Regression analysis of entrepreneurial attitude, subjective norms, and perceived behavior control on entrepreneurial willingness.

Variable	Model 1					Model 2				
	Nonstandard coefficient		Normalized regression coefficient	t	P	Nonstandard coefficient		Normalized regression coefficient	t	P
	Coefficient (B)	Standard error				Coefficient (B)	Standard error			
Constant	1.389	0.192		7.243	0.000	−0.371	0.135		−2.743	<0.000
Gender	0.198	0.056	0.113	3.510	0.000	0.020	0.036	0.011	0.549	0.58
Major	−0.039	0.054	−0.023	−0.726	0.468	−0.015	0.034	−0.009	−0.456	0.64
Place of origin	0.073	0.052	0.046	1.400	0.162	0.081	0.033	0.051	2.450	0.01
Part-time experience	0.177	0.059	0.098	2.991	0.003	0.050	0.038	0.028	1.322	0.18
Entrepreneurial experience of relatives and friends	0.166	0.057	0.093	2.928	0.003	0.036	0.036	0.020	0.998	0.31
Entrepreneurial attitude						0.381	0.027	0.374	14.319	
Subjective norms						0.070	0.027	0.065	2.595	0.01
Perceptual behavior control						0.510	0.024	0.488	21.014	<0.000
R^2			0.034					0.617		
Adjust R^2			0.029					0.614		
F value			6.721***					193.275***		

Table 12: Correlation coefficient matrix between entrepreneurial competence variables and entrepreneurial willingness.

	X_1 learning ability	X_2 grasp the opportunity	X_3 interpersonal relationship	X_4 plan	X_5 resource integration	X_6 self-cognition	X_7 will	X_8 decisiveness	Y_1 entrepreneurial intention
X_1	1								
X_2	0.633***	1							
X_3	0.357***	0.330	1						
X_4	0.269***	0.268***	0.518***	1					
X_5	0.352***	0.357***	0.369***	0.479***	1				
X_6	0.257***	0.208***	0.476***	0.587***	0.432***	1			
X_7	0.287***	0.253***	0.393***	0.467***	0.467***	0.573***	1		
X_8	0.354***	0.437***	0.410**	0.449***	0.467***	0.431***	0.557***	1	
Y_1	0.615***	0.537***	0.230***	0.149***	0.240***	0.109***	0.191***	0.307***	1

Table 13: Regression analysis of entrepreneurial competence variables on entrepreneurial willingness.

Variable	Model 1					Model 2				
	Nonstandard coefficient		Normalized regression coefficient	t	P	Nonstandard coefficient		Normalized regression coefficient	t	P
	Coefficient (B)	Standard error				Coefficient (B)	Standard error			
Constant	1.384	0.193	0.111	7.173	0.000	0.286	0.187	1.526	0.127	
Gender	0.194	0.057	3.426	0.001	0.130	0.044	0.074	2.932	0.003	
Major	−0.041	0.054	−0.025	−0.769	0.442	−0.113	0.042	−0.067	−2.721	0.007
Main source	0.076	0.052	0.048	1.448	0.148	0.106	0.041	0.067	2.605	0.009
Part-time experience	0.178	0.059	0.099	3.008	0.003	0.068	0.046	0.038	1.479	0.140
Entrepreneurial experience of relatives and friends	0.168	0.057	0.094	2.934	0.003	0.059	0.044	0.033	1.349	0.178
Learning ability						0.444	0.032	0.457	14.007	<0.000
Grasp the opportunity						0.229	0.033	0.238	7.026	<0.000
Interpersonal relationship						0.009	0.033	0.009	0.286	0.775
Plan						−0.025	0.037	−0.023	−0.684	0.494
Resource integration						−0.008	0.032	−0.007	−0.242	0.809
Self-cognition						−0.106	0.041	−0.088	−2.580	0.010
Will						0.019	0.036	0.017	0.511	0.610
Decisiveness						0.073	0.035	0.068	2.072	0.039
R^2			0.034					0.440		
Adjust R^2			0.029					0.432		
F value			6.682***					57.093***		

Table 14: Hypothesis test results.

Hypothesis	Content	Support or not
H_{1a}	The gender of college students positively affects their entrepreneurial intention;	Support
H_{1b}	The majors of college students positively affect their entrepreneurial intention;	Do not support it
H_{1c}	The place of origin of college students has a positive impact on their entrepreneurial intention;	Do not support it
H_{1d}	The part-time experience of college students positively affects their entrepreneurial intention;	Support
H_{1e}	The entrepreneurial experience of relatives and friends positively affects the entrepreneurial intention of college students;	Support
H_{2a}	Entrepreneurial attitude positively affects entrepreneurial intention;	Support
H_{2b}	Subjective norms positively affect entrepreneurial intention;	Support
H_{2c}	Perceived behavior control positively affects entrepreneurial intention;	Support
H_{3a}	Learning ability positively affects entrepreneurial intention;	Support
H_{3b}	The ability to grasp opportunities has a positive impact on entrepreneurial intention;	Support
H_{3c}	Interpersonal relationship processing ability positively affects entrepreneurial intention;	Do not support it
H_{3d}	Planning ability positively affects entrepreneurial intention;	Do not support it
H_{3e}	The ability of resource integration positively affects entrepreneurial intention;	Do not support it
H_{3f}	Self-cognitive ability positively affects entrepreneurial intention;	Support
H_{3g}	Perseverance has a positive impact on entrepreneurial intention;	Do not support it
H_{3h}	Decisiveness positively affects entrepreneurial willingness.	Support

The test results of the goodness of fit of the model show that the complex correlation coefficient $r = 0.175$, the determination coefficient $R^2 = 0.031$, and the adjusted R^2 value is 0.028, indicating that the personality characteristics can explain about 3.1% of the entrepreneurial intention. The regression equation was statistically tested by ANOVA: regression regression, degree of freedom = 3, SS regression = 18.863, and Ms regression = 6.288; and residua residual freedom is 968, SS residual = 596.450, and Ms residual = 0.616. The F value is 10.205, and the P value is < 0.000, which indicates that the regression equation is meaningful. As shown in Table 9, the coefficients of the three variables are all positive, which indicates that gender, part-time experience, and entrepreneurial experience of relatives and friends have a positive impact on entrepreneurial willingness and have statistical significance ($P < 0.05$). Taking another look at the standardized regression coefficient, gender (0.117) > part-time experience (0.107) > entrepreneurial experience of relatives and friends (0.093), which indicates that the degree of influence of the three variables on entrepreneurial intention is in the order of gender- > part-time experience > entrepreneurial experience of relatives and friends. To sum up, the regression equation is

$$Y_1 = 1.408 + 0.206X_1 + 0.19389X_4 + 0.167X_5. \quad (10)$$

4.2. Regression Analysis of Entrepreneurial Attitude, Subjective Norms, and Perceived Behavior Control on Entrepreneurial Willingness. First, the control variable (demographic variable) is used as an independent variable to conduct a regression analysis on entrepreneurial intention to obtain model 1, and then, the control variable and entrepreneurial attitude, subjective norms, and perceived behavior control are used as independent variables to conduct a regression analysis on entrepreneurial intention to obtain model 2.

First, the applicable conditions of multiple linear regression are tested. There is a linear relationship between the independent variable and the dependent variable by plotting the scatter plot. The residual histogram and the normal probability diagram ($P - P$ diagram) show that the residual is normal. The residual determined by the scatter plot of the normalized residual prediction value satisfies the isovariance [18]. As shown in Table 10, the correlation analysis of entrepreneurial attitude, subjective norms, perceived behavior control, and entrepreneurial intention is carried out. There is a strong correlation between Sn and PBC, and there is a moderate correlation between AB, Sn, and PBC. There may not be a multiple linear relationship. Further analysis showed that the TOL of the five variables in model 1 was between 0.935 and 0.993, all of which were >0.1, and the VIF was between 1.007 and 1.070, all of which were <5. The TOL of the eight variables in model 2 is between 0.584 and 0.977, all of which are >0.1, and the VIF is between 1.024 and 1.711, all of which are <5. And the Ci of the two models is less than 30, so it is judged that there is no collinearity between the independent variables. The minimum and maximum values of standardized residuals are −3.887 and 3.396, respectively, and the minimum and maximum values of student residuals are −3.914 and 3.421, respectively.

The test results of the model goodness of fit show that the complex correlation coefficient R of model 1 is 0.184, the determination coefficient R^2 is 0.034, and the adjusted

R^2 value is 0.029. The complex correlation coefficient R of model 2 is 0.786, the determination coefficient R^2 is 0.617, and the adjusted R^2 value is 0.614, which indicates that the TPB variable can explain 61.7% of entrepreneurial intention.

The regression equation was statistically tested by ANOVA: model 1 was regression, with a degree of freedom = 5, SS regression = 20.660, and Ms regression = 4.132; and residual residual freedom = 962, SS residual = 591.418, and Ms residual = 0.615; the F value is 6.721, and the P value is < 0.000, which indicates that the regression equation is meaningful. Model 2 was regression with degree of freedom = 8, SS regression = 377.772, and Ms regression = 47.221; residual residual, degree of freedom = 959, SS residual = 234.306, and Ms residual = 0.244; the F value is 193.275, and the P valueis < 0.000, which indicates that the regression equation is meaningful.

As shown in Table 11, the P values corresponding to entrepreneurial attitude, subjective norms, and perceived behavior control in model 2 are <0.000, 0.010, and <0.000, respectively, and the coefficients are all positive, which indicates that entrepreneurial attitude, subjective norms, and perceived behavior control have a significant positive impact on entrepreneurial willingness. According to the standardized regression coefficient, the effects of the three variables on entrepreneurial willingness are perceived behavior control, entrepreneurial attitude, and subjective norms from high to low.

4.3. Regression Analysis of Entrepreneurial Competence Variables on Entrepreneurial Willingness. First, the control variable (demographic variable) is used as an independent variable to conduct regression analysis on entrepreneurial willingness to obtain model 1, and then, the control variable and entrepreneurial competence-related variables such as learning ability, opportunity grasping ability, and interpersonal relationship processing ability are used as independent variables to conduct regression analysis on entrepreneurial willingness to obtain model 2 [19]. First, the applicable conditions of multiple linear regression are tested. There is a linear relationship between the independent variable and the dependent variable by plotting the scatter plot. The residual histogram and the normal probability diagram ($P - P$ diagram) show that the residual is normal. The residual determined by the scatter plot of the normalized residual prediction value satisfies the isovariance [20]. As shown in Table 12, the correlation analysis of entrepreneurial competence and entrepreneurial willingness shows that there is a moderate correlation between the variables, and there may not be a multiple linear relationship. Further analysis showed that the TOL of the five variables in model 1 was between 0.936 and 0.993, all of which were >0.1, and the VIF was between 1.007 and 1.068, all of which were <5. The TOL of thirteen variables in model 2 is between 0.5140.975, all of which are >0.1, and the VIF is between 1.025 and 1.944, all of which are <5. Therefore, it is judged that there is no collinearity between independent variables. The minimum and maximum values of standardized residuals are −3.956 and 3.589, respectively, and the minimum and maximum values of student residuals are −3.992 and 3.640, respectively [21].

The test results of model goodness of fit show that the complex correlation coefficient r of model 1 is 0.184, the determination coefficient R^2 is 0.034, and the adjusted R^2 value is 0.029. The complex correlation coefficient r of model 2 is 0.663, the determination coefficient R^2 is 0.440, and the adjusted R^2 value is 0.432, which indicates that the TPB variable can explain 44.0% of entrepreneurial intention [22].

The regression equation was statistically tested by ANOVA: model 1 was regression, with a degree of freedom = 5, SS regression = 20.546, and Ms regression = 4.109; and residual residual, degree of freedom = 953, SS residual = 586.034, and Ms residual = 0.615; the F value is 6.682, and the P value is < 0.000, which indicates that the regression equation is meaningful [23]. Model 2 was regression with a degree of freedom = 13, SS regression = 266.838, and Ms regression = 20.526; and residual residual, degree of freedom 945, SS residual = 339.742, and Ms residual = 0.360; the F value is 57.093, and the P value is < 0.000, which indicates that the regression equation is meaningful.

As shown in Table 13, the corresponding P values of learning ability, opportunity grasping ability, interpersonal relationship ability, planning ability, resource integration ability, self-cognition ability, perseverance, and decisiveness are P values 0.000, 0.000, 0.775, 0.494, 0.809, 0.010, 0.610, and 0.039, respectively [24]. Among them, the coefficient of learning ability, opportunity grasping, and decisiveness is positive, and the coefficient of self-cognitive ability is negative, which indicates that learning ability, opportunity grasping, and decisiveness have a significant positive impact on entrepreneurial intention, while self-cognitive ability has a negative impact (PG 0.05). Let's look at the standardized regression coefficient. The degree of effect of the four variables on entrepreneurial willingness from high to low is learning ability (0.457), opportunity grasping ability (0.238), self-awareness ability (0.088), and decisiveness (0.068).

The hypothesis test results can be obtained according to the above multiple linear regression analysis results, as shown in Table 14. In the dimension of personality characteristics, only gender, part-time experience, and entrepreneurial experience of relatives and friends affect entrepreneurial intention. Among the TPB variables, entrepreneurial attitude, subjective norms, and perceived behavior control have significant positive effects on entrepreneurial willingness, and there are also significant interactions among the three variables. Among the entrepreneurial competence variables, only learning ability, opportunity grasping ability, self-awareness ability, and decisiveness have a significant positive impact on entrepreneurial intention [25].

5. Conclusion

The results show that the overall score of entrepreneurial willingness of medical college students is 2.54 ± 0.63, 23.33% of the students said "no at all," and 27.8% of the students said "considered but would not start a business"; that is, half of

the students clearly said that they would not start a business, and their entrepreneurial willingness is low, which is consistent with the research results of many scholars at home and abroad. However, with the rapid development of economy and the upsurge of national innovation and entrepreneurship, it is the general trend that medical college students' entrepreneurial willingness is rising. Improving the entrepreneurial willingness of medical college students is the root of the problem. Under the concept of frequency, the generalized partial scoring model uses the LTM package in *R* software to estimate the parameters of GPCM. However, it has a sample size limit when screening and evaluating the scale items, and generally requires a relatively large sample size. Then, in the face of relatively small samples, it is suggested to use the method of combining the Bayesian theory with the generalized segment scoring model, *R* software, and WinBUGS software for analysis. Based on the appearance of the Bayesian method and the applicability of item response theory, the Bayesian generalized segment scoring model enables us to still obtain more reliable parameter estimates when facing small samples and then make relevant statistical inference.

In short, the long-term students of traditional Chinese medicine have insufficient self-awareness and career awareness. Their awareness and ability of career planning need to be improved. The degree of innovation and entrepreneurship education and the innovation and entrepreneurship ability of students still need to be strengthened. Therefore, the school should attach importance to the career planning education of college students, improve the curriculum, establish a long-term learning mechanism for teaching teachers, improve the degree of specialization of guidance personnel, and pay attention to the psychological guidance of students. At the same time, we should follow the trend of the times, integrate innovation, and entrepreneurship education into the whole process of undergraduate and postgraduate training of long-term students of traditional Chinese medicine, provide all-round support for medical students' entrepreneurship projects, make the future career development of medical students more diversified, and promote the industrialization transformation of medical-related scientific research achievements in multiple dimensions, so as to form a good cycle of employment driven by entrepreneurship.

Data Availability

The labeled dataset used to support the findings of this study can be obtained from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

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References

[1] A. Y. Permana, R. D. Srihartati, J. Akbardin, A. Setiawan, D. Jatnika, and W. Rustandi, "Technopreneur training model in building an entrepreneurship," *Journal of Architectural Research and Education*, vol. 2, no. 2, pp. 190–197, 2020.

[2] E. M. Daniel and R. Owen, "Home-based self-employment: combining personal, household and employment influences," *Journal of Enterprising Culture*, vol. 30, no. 02, pp. 123–160, 2022.

[3] J. Dogra, S. Jain, A. Sharma, R. Kumar, and M. Sood, "Brain tumor detection from MR images employing fuzzy graph cut technique," *Recent Advances in Computer Science and Communications*, vol. 13, no. 3, pp. 362–369, 2020.

[4] M. Ubilla, C. I. Velez, and S. M. Afcha, "La educación para el emprendimiento como predictor de intención emprendedora de estudiantes universitarios," *Formacion Universitaria*, vol. 13, no. 2, pp. 63–72, 2020.

[5] J. Pardosi, R. A. Nugroho, J. R. Manullang, and A. N. Asikin, "Pengembangan kewirausahaan di universitas mulawarman untuk mencetak wirausaha muda yang inovatif," *Jurnal Pengabdian UntukMu NegeRI*, vol. 14, no. 2, pp. 2745–3782, 2020.

[6] E. O. Nwajiaku, A. C. Ananwude, and V. Obi-Nwosu, "Financial deepening and entrepreneurial growth in Nigeria: a time series analysis (1986 -2018)," *International Journal of Academic Research in Accounting, Finance and Management Sciences*, vol. 10, no. 2, pp. 257–263, 2020.

[7] K. Lamm, C. Mulvaney, A. Lamm, K. Davis, and F. Masambuka-Kanchewa, "Model of success: extension services helping ugandan youth find a career in agriculture," *Journal of International Agricultural and Extension Education*, vol. 28, no. 3, pp. 7–13, 2021.

[8] J. Jayakumar, B. Nagaraj, S. Chacko, and P. Ajay, "Conceptual implementation of artificial intelligent based E-mobility controller in smart city environment," *Wireless Communications and Mobile Computing*, vol. 2021, pp. 1–8, Article ID 5325116, 2021.

[9] M. Trihastuti, A. Abdulkarim, E. Danial, and A. Supriadi, "Learning strategy for students' entrepreneurial spirit through students' cooperation (kopma)," *Jurnal Iqra: Kajian Ilmu Pendidikan*, vol. 5, no. 2, pp. 83–94, 2020.

[10] A. A. Dolgaya and O. V. Kovbasyuk, "Transformative education: raising entrepreneurial spirit," *Russian Journal of Innovation Economics*, vol. 10, no. 2, pp. 663–672, 2020.

[11] P. Ajay, B. Nagaraj, R. A. Kumar, R. Huang, and P. Ananthi, "Unsupervised hyperspectral microscopic image segmentation using deep embedded clustering algorithm," *Scanning*, vol. 2022, pp. 1–9, Article ID 1200860, 2022.

[12] F. Zhou, M. K. Lim, Y. He, and S. Pratap, "What attracts vehicle consumers' buying," *Industrial Management & Data Systems*, vol. 120, no. 1, pp. 57–78, 2019.

[13] X. Luo, A. Cottam, Y. J. Wu, and Y. Jiang, "Hybrid-data approach for estimating trip purposes," *Transportation Research Record*, vol. 2675, no. 11, pp. 545–553, 2021.

[14] M. R. L. Bazargan and S. Taghipour, "A hybrid data-driven approach for forecasting the characteristics of production disruptions and interruptions," *International Journal of Information Technology and Decision Making*, vol. 21, no. 04, pp. 1127–1154, 2022.

[15] J. Qiu and S. Yang, "Material and interface engineering for high-performance perovskite solar cells: a personal journey and perspective," *The Chemical Record*, vol. 20, no. 3, pp. 209–229, 2020.

[16] X. L. Zhao, X. Liu, J. Liu, J. Chen, S. Fu, and F. Zhong, "The effect of ionization energy and hydrogen weight fraction on the non-thermal plasma vocs removal efficiency," *Journal of Physics D Applied Physics*, vol. 52, 2019.

[17] W. Ma, J. Shen, H. Zhu et al., "A novel adaptive hybrid fusion network for multiresolution remote sensing images classification," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 60, no. 99, pp. 1–17, 2022.

[18] E. Chodakowska and J. Nazarko, "Hybrid rough set and data envelopment analysis approach to technology prioritisation," *Technological and Economic Development of Economy*, vol. 26, no. 4, pp. 885–908, 2020.

[19] J. Gu, W. Wang, R. Yin, C. V. Truong, B. P. Ganthia, and B. P. Ganthia, "Complex circuit simulation and nonlinear characteristics analysis of GaN power switching device," *Nonlinear Engineering*, vol. 10, no. 1, pp. 555–562, 2021.

[20] J. B. Seo, B. C. Jung, H. Jin, and J. Choi, "Stability region of hybrid uplink noma: game theoretic perspective," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 4, pp. 3955–3960, 2021.

[21] K. Jeongyeon and C. Jinsook, "Teasing humor and identity construction in business meetings at a Korean startup," *The Sociolinguistic Journal of Korea*, vol. 28, no. 3, pp. 139–171, 2020.

[22] N. Kim, "The role of tourism entrepreneurial education on university students' entrepreneurial competency, intention to start a business and intention to get a job," *Journal of Hospitality and Tourism Studies*, vol. 23, no. 1, pp. 181–197, 2021.

[23] P. M. Mshenga, D. O. Okello, O. I. Ayuya, D. Mwangi, D. Ouma, and N. Mungai, "Influence of entrepreneurship education on egerton university's graduates' intention to start a business," *African Crop Science Journal*, vol. 28, no. s1, pp. 289–303, 2020.

[24] D. S. Silva, A. Ghezzi, R. B. d. Aguiar, M. N. Cortimiglia, and C. S. Caten, "Lean startup, agile methodologies and customer development for business model innovation: a systematic review and research agenda," *International Journal of Entrepreneurial Behavior & Research*, vol. 26, no. 4, pp. 595–628, 2020.

[25] Z. S. Balik, A. G. Demirci, and E. Dik, "Be a startup or be a failure: new solution for unemployment," *American International Journal of Business and Management Studies*, vol. 8, no. 1, pp. 149–158, 2021.