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Research on the Impact of Artificial Intelligence Quotient on the Innovation and Entrepreneurship Abilities of Chinese College Students

Yaowei Li, Jiping Zhang*
School of network communication, Zhejiang Yuexiu University, Shaoxing, China
* Corresponding Author.

Abstract: This study focuses on the innovation and entrepreneurship abilities of Chinese college students in the context of artificial intelligence. Through questionnaire surveys and quantitative analysis of students from various levels of colleges and universities across the country, it explores the current situation of students' innovation and entrepreneurship abilities and the impact of artificial intelligence quotient. The research finds that there is a highly positive correlation between artificial intelligence quotient and college students' innovation and entrepreneurship abilities, and it is a key factor affecting innovation and entrepreneurship abilities. Based on this, suggestions are put forward from aspects such as enhancing the artificial intelligence quotient, strengthening family-school cooperation, and expanding practice platforms and social support networks to provide a reference for promoting the innovation and entrepreneurship of college students in the artificial intelligence era.

Keywords: Artificial Intelligence; College Students; Innovation and Entrepreneurship Ability; Influence Factor

1. Introduction

Innovation is the primary driving force for development. Building an innovative country is a major strategic decision made to open up a new situation in the cause of socialism and the key to implementation lies in talents [1]. Currently, China is in a crucial stage of accelerating the construction of an innovative country, and there is an increasingly urgent demand for innovative talents. College students, as the youth force in the new era, their awareness and abilities of innovation and entrepreneurship are directly related to the country's innovation ability and competitiveness [2]. With the advent of the artificial intelligence era, the wide application of artificial intelligence technology has had a profound impact on the college student employment market, bringing both unprecedented challenges and new development opportunities. The deep integration of artificial intelligence and economic development has brought opportunities in the employment market, such as the reduction of traditional jobs while the increase of new ones, and there is an urgent need for a large number of innovative and entrepreneurial talents who can meet the needs of new business forms [3]. This means that college students need to continuously improve their innovative thinking and skills to adapt to the employment needs of the artificial intelligence era. Therefore, deeply understanding the current situation of college students' innovation and entrepreneurship abilities in the artificial intelligence era, exploring the influencing factors, and formulating effective promotion strategies are of great significance for promoting high-quality employment of college students and grasping the employment opportunities in the intelligent era.

The author selected college students from various levels of universities across the country as the survey objects, deeply analyzed college students' awareness of innovation and entrepreneurship, ability structure, existing training models and practical challenges in the context of artificial intelligence, and provided an empirical basis for formulating precise and efficient promotion paths. The aim is to provide scientific basis and practical guidance for promoting the development of college students' innovation and entrepreneurship abilities in the context of the artificial intelligence era.

2. Methods

2.1 Data Sources

From September to November 2024, this study adopted a random sampling method to select college students from universities across the country as the survey objects. A total of 430 questionnaires were distributed, 410 were returned, with a recovery rate of 95.35%, and 400 were valid, with a validity rate of 97.56%.

2.2 Survey Contents

The research was mainly conducted through questionnaires. According to the research purpose, the self-designed questionnaire includes three parts: the first part is personal basic information, including gender, educational background, whether they are only children, family location, etc.; the second part is the survey of innovation and entrepreneurship abilities; the third part is the measurement of the artificial intelligence quotient. All three parts were measured using the Likert five-point scale, where 1 indicates "strongly disagree" and 5 indicates "strongly agree".

2.3 Data Processing

Excel was used to input and preprocess the questionnaire data, and SPSS 23.0 was used to conduct descriptive analysis, analysis of variance, sample tests and multiple linear regression analysis on the data. The close relationship between different sample characteristics and the innovation and entrepreneurship abilities of college students in the context of "artificial intelligence" was analyzed, and the key factors affecting the innovation and entrepreneurship abilities of college students were accurately identified. The test level $\alpha = 0.05$.

3. Results

3.1 Basic Information

In this survey, there were 400 undergraduate students; 170 boys and 230 girls; 244 only children and 156 non-only children. See Table 1 for details.

Table 1. Basic Information of Survey Subjects

Variables	Categories	Frequency	%
Gender	Male	170	42.5
	Female	230	57.5
Grade	Freshman	80	20.0
	Sophomore	132	33.0
	Junior	128	32.0
	Senior	60	15.0
Major	Arts	140	35.0
	Science and Engineering	260	65.0
Family Location	Urban and above	110	27.5
	Rural	209	72.5
Family Monthly Income	Below 2000 yuan	4	1.0
	2000-5000 yuan	14	3.5
	5001-10000 yuan	92	23.0
	Above 10000 yuan	290	72.5
Whether Only Child	Yes	244	61.0
	No	156	39.0
Parents' Highest Education	Undergraduate and above	62	15.5
	Junior college	30	7.5
	High school	192	48.0
	Junior high school	112	28.0
	Primary school and below	4	1.0
Academic Performance Ranking	Top 20%	58	14.5
	21% - 40%	124	31.0
	41% - 60%	130	32.5
	61% - 80%	72	18.0
	Bottom 20%	16	4.0
Entrepreneurial Experience	Yes	58	14.5
	No	342	85.5
Lecture Experience	Yes	276	69.0
	No	124	31.0
Course Experience	Yes	336	84.0
	No	64	16.0

3.2 Factors Affecting Innovation and Entrepreneurship Abilities

The top eight factors in terms of the importance of influencing the formation and development of innovation and entrepreneurship abilities are the importance attached by universities to innovation and entrepreneurship education (accounting for 32%), innovation and entrepreneurship courses (accounting for 24%), family economic situation (accounting for 22%), guidance from innovation and entrepreneurship mentors (accounting for 20%), innovation and entrepreneurship practical experience (accounting for 19%), family

members' entrepreneurial experience (accounting for 17%), family members' support (accounting for 15%), and social atmosphere recognition and support (accounting for 14%).

3.3 Specific Dimension Analysis of College Students' Innovation and Entrepreneurship Abilities

College students' entrepreneurial personality is at an above-average level, with an overall score of 3.61. There are differences in each tertiary ability dimension. The dimension with the highest average score is "steadfast and persistent", and the dimension with the lowest average score is "confident and optimistic", with a difference of 0.11 points between them. Specifically, "steadfast and persistent" scored 3.65 points, "responsible and accountable" scored 3.64 points, "courage and boldness" scored 3.60 points, and "confident and optimistic" scored 3.54 points. See Table 2 for details.

College students' basic entrepreneurial abilities are at an above-average level, with an overall score of 3.61. There are differences in each tertiary ability dimension. The dimension with the highest average score is "learning ability", and the dimension with the lowest average score is "practical ability", with a difference of 0.10 points between them. Specifically, "learning ability" scored 3.60 points, "analytical ability" scored 3.57 points, and "practical ability" scored 3.50 points. See Table 2 for details.

College students' core entrepreneurial abilities are at an above-average level, with an overall score of 3.59. There are differences in each tertiary ability dimension. The dimension with the highest average score is "innovation ability", and the dimension with the lowest average score is "resource integration ability", with a difference of 0.10 points between them. Specifically, "innovation ability" scored 3.64 points, "opportunity grasping ability" scored 3.60 points, "leadership ability" scored 3.57 points, and "resource integration ability" scored 3.54 points. See Table 2 for details.

College students' social coping abilities are at an above-average level, with an overall score of 3.64. There are differences in each tertiary ability dimension. The dimension with the highest average score is "interpersonal communication ability", and the dimension with the lowest average score is "teamwork

ability", with a difference of 0.03 points between them. Specifically, "interpersonal communication ability" scored 3.66 points, "stress resistance ability" scored 3.64 points, and "teamwork ability" scored 3.63 points. See Table 2 for details.

College students' social coping abilities are at an above-average level, with an overall score of 3.64 points. There are differences in each tertiary ability dimension. The dimension with the highest average score is "interpersonal communication ability", and the dimension with the lowest average score is "teamwork ability", with a difference of 0.03 points between them. Specifically, "interpersonal communication ability" scored 3.66 points, "stress resistance ability" scored 3.64 points, and "teamwork ability" scored 3.63 points. The research shows that college students' entrepreneurial personality, basic entrepreneurial abilities, core entrepreneurial abilities and social coping abilities are generally at an above-average level, reflecting the effectiveness of college education and the improvement of students' comprehensive qualities. However, the internal differences in each dimension point out the direction for optimization. For example, "confident and optimistic" in entrepreneurial personality needs to be strengthened to enhance stress resistance and frustration tolerance and reserve strong psychological capital for entrepreneurial challenges; "practical ability" in basic entrepreneurial abilities needs to be deeply cultivated to promote the transformation of knowledge into practice and improve practical proficiency and problem-solving efficiency; "resource integration ability" in core entrepreneurial abilities should be broken through to strengthen the efficiency of resource exploration, coordination and utilization; "teamwork ability" in social coping abilities can be improved to enhance the communication and cooperation tacit understanding among members and unite team forces.

Table 2. Average Values of Items in Each Dimension of the Survey Objects

Variables	Mean	Standard Deviation
Courage and Boldness	3.60	0.865
Responsible and Accountable	3.64	0.854
Steadfast and Persistent	3.65	0.902
Confident and Optimistic	3.54	0.907

Practical Ability	3.50	0.987
Learning Ability	3.60	0.916
Analytical Ability	3.57	0.879
Innovation Ability	3.64	0.883
Opportunity Grasping Ability	3.60	0.872
Resource Integration Ability	3.54	0.922
Leadership Ability	3.57	0.911
Interpersonal Communication Ability	3.66	0.875
Teamwork Ability	3.63	0.892
Stress Resistance Ability	3.64	0.883

3.4 Difference Analysis of College Students' Innovation and Entrepreneurship Abilities

According to the survey, the innovation and entrepreneurship abilities of science and engineering students are higher than those of liberal arts students. The average score of innovation and entrepreneurship abilities of science and engineering students is 3.61, and that of liberal arts students is 3.58. There is a significant difference in innovation and entrepreneurship abilities between majors ($P < 0.05$). The average score of innovation and entrepreneurship abilities of college students with entrepreneurial experience is 3.61, and that of those without entrepreneurial experience is 3.49. There is a significant difference in innovation and entrepreneurship abilities between those with and without entrepreneurial experience ($P < 0.05$). The average score of innovation and entrepreneurship abilities of college students with lecture experience is 3.64, and that of those without lecture experience is 3.50. There is a significant difference in innovation and entrepreneurship abilities between those with and without lecture experience ($P < 0.05$). The average score of innovation and entrepreneurship abilities of college students with course experience is 3.64, and that of those without course experience is 3.55. There is a significant difference in innovation and entrepreneurship abilities between those with and without course experience ($P < 0.05$). See Table 3 for details.

Table 3. Analysis Table of Various Dimensions of College Students' Innovation and Entrepreneurship Ability

Variables	Categories	Sample Size	Mean	Standard Deviation	P-value
Major	Arts	140	3.58	0.75	0.04
	Science and Engineering	260	3.61	0.61	
Entrepreneurial Experience	Yes	58	3.61	0.78	0.05
	No	342	3.49	0.64	
Lecture Experience	Yes	276	3.64	0.67	0.047
	No	124	3.50	0.65	
Course Experience	Yes	336	3.64	0.65	0.045
	No	64	3.35	0.71	

3.5 Difference Analysis of College Students' Artificial Intelligence Quotient

According to the survey, the p-value of majors is less than 0.05, indicating a significant difference between different majors. The average value of liberal arts is 3.58, and that of science and engineering is 3.64. The average value of science and engineering is higher than that of liberal arts. The p-value of whether there is entrepreneurial experience is less than 0.05, indicating a significant difference between those with and without entrepreneurial experience. The average value of those with entrepreneurial experience is 3.61, and that of those without entrepreneurial experience is 3.55. The average value of those with entrepreneurial experience is greater than that of those without entrepreneurial experience. See Table 4 for details.

Table 4. Analysis Table of Artificial Intelligence Quotient of College Students

Variables	Categories	Sample Size	Mean	Standard Deviation	P-value
Major	Arts	140	3.58	0.70	0.026
	Science and Engineering	260	3.64	0.60	
Entrepreneurial Experience	Yes	58	3.61	0.85	0.007
	No	342	3.55	0.65	

3.6 Correlation Analysis between College Students' Innovation and Entrepreneurship Abilities and Artificial Intelligence Quotient

As shown in the table, the simple correlation coefficient between the artificial intelligence

quotient and innovation and entrepreneurship abilities is 0.725, indicating a strong positive correlation between them. The probability P-value of the correlation coefficient test is approximately 0. Therefore, the two are highly correlated. See Table 5 for details.

Table 5. Correlation Analysis between College Students' Innovation and Entrepreneurship Ability and Artificial Intelligence Quotient

	Artificial Intelligence Quotient	Innovation and Entrepreneurship Abilities
Artificial Intelligence Quotient	1	.725***
Innovation and Entrepreneurship Abilities	.725***	1

*P<0.05,**P<0.01,***P<0.001.

3.7 Research on the Impact of Artificial Intelligence Quotient on College Students' Innovation and Entrepreneurship Abilities

From the table, taking the artificial intelligence quotient as the independent variable and the major category, entrepreneurial experience and innovation and entrepreneurship abilities as the dependent variables for linear regression analysis. Since the regression coefficient of the major category is 0.010 (t = 0.371, p = 0.711 > 0.05), it means that the major category has no influence on innovation and entrepreneurship abilities; the regression coefficient of entrepreneurial experience is 0.059 (t = 1.559, p = 0.120 > 0.05), it means that entrepreneurial experience has no influence on innovation and entrepreneurship abilities. Therefore, the model formula is:

$$Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\beta_5X_5+\varepsilon$$

where Y represents the dependent variable (here is innovation and entrepreneurship abilities); β_0 is the constant term (intercept); $\beta_1,\beta_2,\beta_3,\beta_4,\beta_5$ are the regression coefficients of the respective independent variables; X_1 represents the independent variable (artificial intelligence quotient), X_2,X_3,X_4,X_5 represent the control variables (major category, entrepreneurial experience, lecture experience and course experience) respectively; ε is the random error term. The R-square value of the model is 0.856.

The regression coefficient value of the artificial intelligence quotient is 0.898 (t = 48.614, p = 0.000 < 0.01), which means that the artificial intelligence quotient has a significant positive impact on innovation and entrepreneurship abilities.

So the artificial intelligence quotient has a significant positive impact on innovation and entrepreneurship abilities. See Table 6 for details.

4. Discussion and Suggestions

4.1 Discussion

Firstly, this study found that artificial intelligence quotient has a significant impact on college students' innovation and entrepreneurship abilities. The reasons are explained from the following dimensions.

From the dimension of curiosity and imagination about artificial intelligence, as discussed by Yuan et al [4], curious students tend to have more innovative motivation. They actively pay attention to the cutting-edge developments of artificial intelligence. For example, new breakthroughs in the field of intelligent healthcare can inspire them to explore the possibility of applying similar technologies in health management entrepreneurship projects, thus generating unique ideas and injecting new vitality and direction into innovation and entrepreneurship. In the survey, students with higher innovation ability scores generally scored higher on this item, indicating that their curiosity and imagination about artificial intelligence have effectively promoted the expansion of innovative thinking and are an important source of innovation.

Table 6. Results of Linear Regression Analysis (n=400)

	Non-standard coefficient		Standardization coefficient	t	p	Collinearity diagnosis	
	B	Standard Error	Beta			VIF	Tolerance
Constant	0.394	0.123	-	2.823	0.005	-	-
Major	0.010	0.028	0.008	0.371	0.711	1.004	0.996
Entrepreneurial Experience	0.059	0.038	0.034	1.559	0.120	1.010	0.990
Lecture Experience	0.033	0.030	0.024	1.103	0.271	1.042	0.960
Course Experience	0.039	0.038	0.022	1.015	0.311	1.039	0.963

Artificial Intelligence Quotient	0.898	0.018	0.925	48.614	0.000***	1.000	1.000
R^2	0.856						
Adjusted R^2	0.856						
F	F=2363.304,P<0.001***						

Dependent variable = Innovation and entrepreneurship abilities.

The ability to innovatively use artificial intelligence to solve problems is crucial in practice. In entrepreneurship in the logistics industry, if students can use artificial intelligence to optimize transportation route planning and inventory management, they can significantly reduce costs and improve efficiency, enhancing the competitiveness of enterprises. In the survey data, students with strong abilities in this regard scored outstandingly in the core entrepreneurial ability dimension, especially in opportunity grasping and resource integration. This is consistent with the views of Somià and Vecchiarini [5] that the ability to use artificial intelligence to solve problems helps students identify and utilize entrepreneurial opportunities and rationally allocate resources, promoting the implementation and development of entrepreneurial projects.

Having creative thinking to solve qualitative problems [6] that artificial intelligence cannot handle is the key for college students to form a differential advantage in innovation and entrepreneurship. In the cultural and creative industries, when facing complex qualitative problems such as consumers' emotions and cultural preferences, students can develop more attractive cultural and creative products or services by combining their unique thinking with artificial intelligence-assisted analysis. The research results show that among student groups with innovative and unique entrepreneurial projects, the scores on this item are relatively high, indicating that creative thinking not only compensates for the limitations of artificial intelligence but also greatly enhances the innovation and competitiveness of entrepreneurial projects, laying the foundation for entrepreneurial success.

Data acquisition and processing capabilities provide a solid basis for decision-making in innovation and entrepreneurship. From the data, in the basic entrepreneurial ability dimension, students with strong data processing capabilities perform better in analysis and practical abilities, indicating that this ability helps students combine theoretical knowledge with the actual market situation and make smart startup decisions, improving the scientific and effectiveness of entrepreneurial practice [7].

The ability to operate computers and communicate with machines is especially critical in the field of technology entrepreneurship. This is consistent with the views of Koe W L et al.[8]. In entrepreneurship in intelligent hardware development, students can interact efficiently with devices, write and debug programs to ensure the realization and optimization of product functions. The survey found that science and engineering students have an advantage in this item, and it is positively correlated with their overall performance in innovation and entrepreneurship abilities, indicating that this ability provides necessary technical support for entrepreneurial projects involving technology research and development and promotes the implementation and progress of entrepreneurial projects at the technical level.

Good expression and listening abilities are the core elements of entrepreneurial team collaboration [9]. In team cooperation, students who are good at expressing their views can clearly explain their ideas and plans, and those who are willing to listen can absorb the suggestions of team members, promoting the collision of ideas and collaborative innovation among team members. In the survey of social coping ability dimension, students with stronger teamwork abilities scored higher on these two items, indicating that expression and listening abilities help enhance team cohesion, improve the efficiency of team problem-solving, and ensure the smooth progress of entrepreneurial projects.

Fast learning and continuous learning abilities are essential for college students to adapt to the rapidly changing environment in the process of innovation and entrepreneurship [10]. With the continuous update of artificial intelligence technology, students with these abilities can master new technologies and methods in a timely manner and apply them to entrepreneurial practice. For example, in the

field of artificial intelligence education entrepreneurship, entrepreneurs continuously learn new teaching models and technology applications, continuously optimize course content and teaching methods, and maintain the competitiveness of the project. From the research results, students who maintain learning enthusiasm and progress in different entrepreneurial stages have more advantages in their innovation and entrepreneurship abilities in the long term, indicating that continuous learning ability provides power support for the sustainable development of entrepreneurial projects and ensures that entrepreneurial projects can keep up with the pace of the times, continuously innovate and grow.

Secondly, this study found that family factors have a multivariate impact on college students' innovation and entrepreneurship abilities. Family economic status lays a material foundation and buffers risks for entrepreneurship. Sufficient economic resources can help launch projects, expand networks, and promote entrepreneurial practice. This is consistent with the description of the importance of family economic support for entrepreneurship by He et al [11]. Family members' entrepreneurial experience can inherit valuable experience, networks, and risk awareness, shape entrepreneurial values and keen insights, and inspire students to start businesses. The demonstration effect has been confirmed in Zhang's research [12]. The all-round support of family members, including emotional, financial, and network support, stabilizes the entrepreneurial psychology, enhances the practical confidence, and provides emotional and resource guarantees for entrepreneurs [13].

Thirdly, this study found that practical guidance cooperatively promotes college students' innovation and entrepreneurship abilities. Innovation and entrepreneurship tutors, with their profound professional knowledge, rich practical experience, and broad industry vision, provide precise guidance, connect resources, and overcome difficulties for students. They have been identified as an important external force in promoting students' innovation and entrepreneurship breakthroughs in Teng Teng's research. Practical experience is a key link in testing knowledge, tempering abilities, accumulating experience, and adjusting mentality. Students can realize the transformation from theory to practice through it, improve problem-solving and strain capacity, and shape tenacious qualities. This is the core significance of practical training in enhancing students' entrepreneurial abilities emphasized by Ji et al [14].

Finally, this study found that the social atmosphere has a positive impact on the cultivation of college students' innovation and entrepreneurship abilities. Positive social recognition and support create a good entrepreneurial ecosystem. Policy support reduces obstacles, adds resources and opportunities, and cultural tolerance and public praise encourage entrepreneurship, stimulate entrepreneurial motivation and courage. This is consistent with Xu et al.'s discussion [15] on the promotion of college students' entrepreneurship by a positive social environment and injects strong impetus into entrepreneurial activities.

4.2 Suggestions

4.2.1 Empower in multiple dimensions to improve artificial intelligence quotient

Optimize courses to strengthen the foundation: Xu's research [16] shows that in the field of education, the application of artificial intelligence technology to promote teaching reform requires attention to the efficient transmission of basic content. This inspires us that for basic artificial intelligence courses such as mathematics, physics, and computer programming, we should optimize the content and methods of relevant courses to consolidate students' mathematical logic and programming foundation. Li et al [17] pointed out that the use of artificial intelligence technology can realize the diversification and intelligence of teaching resources. For example, the intelligent grouping of English test papers. This prompts us to offer courses such as "Seminar on Advanced Artificial Intelligence Technologies" in artificial intelligence professional courses and invite experts to share to stimulate students' interest. Yuan and Zhang [18] found through analyzing the abilities of students in different fields that intelligent teaching can improve students' specific thinking abilities. This guides us to cultivate students' abilities to solve practical problems and comprehensively apply knowledge through course projects and group assignments in the artificial intelligence curriculum system, laying a foundation for their

innovation and entrepreneurship.

Strengthen practical training to enhance capabilities: As Zhang [19] pointed out, to meet the demand of the artificial intelligence industry for compound application talents, colleges and universities should actively build a rich variety of practical platforms. On campus, it is necessary to build artificial intelligence professional laboratories and equip them with advanced hardware equipment and software tools to meet the needs of students' experiments and project development. At the same time, strengthen school-enterprise cooperation and jointly build internship bases with leading artificial intelligence enterprises. Enterprises provide real project scenarios, and students participate in relevant project practices. In practice, they become familiar with industry processes, master core technologies, and accumulate project experience, so as to exercise teamwork, innovative thinking, and strain capacity and enhance the transformation efficiency of artificial intelligence quotient in innovation and entrepreneurship practice.

Cultivate culture to inspire intelligence: Create an campus artificial intelligence innovation culture atmosphere, hold artificial intelligence science and technology festivals, academic forums, creative workshops and other activities to display cutting-edge achievements, encourage academic exchanges and creative collisions [20]. Set up an artificial intelligence innovation incubation center to provide students with entrepreneurial guidance, financial support and resource connection services to help innovative projects land and transform. Teachers should focus on guiding students to carry out innovative thinking and exploration in teaching, encourage students to break through traditional thinking patterns, cultivate their unique insights and innovation awareness in the field of artificial intelligence, and fully tap the innovation and entrepreneurship potential of students to achieve the coordinated improvement of artificial intelligence quotient and innovation and entrepreneurship abilities.

4.2.2 Deepen family-university collaborative education

Families should actively guide: Parents should establish an innovation education concept and cultivate a family innovation culture [21]. Drawing on the experience of the "Innovation Three-Dimensional Architecture" of Stanford University in the United States, pay attention to the enlightenment of innovation awareness. Share stories of scientific and technological innovation and entrepreneurship and analyze cases of artificial intelligence business changes in daily life, encourage children to participate in scientific and technological innovation activities, and stimulate their entrepreneurial interests. Establish a family innovation incentive mechanism to give affirmation and rewards to children's innovation attempts and cultivate their spirit of daring to explore and not fearing failure.

4.2.3 Expand practical platforms and social support networks

Enrich practical channels: Colleges and universities should jointly build artificial intelligence innovation and entrepreneurship practice bases with enterprises and research institutes. As Guo X. described [22], build a diversified cooperation practice platform to enhance students' abilities. Establish a "University-Enterprise Joint Innovation Laboratory" to focus on research on industry problems and promote the transformation of achievements and entrepreneurial incubation [23]. Kristen believes that it is of great significance to organize students to take rotational internships in artificial intelligence benchmark enterprises. During the internship, participating in the research, development and operation of core projects can connect courses with practice, expand networks, gain market insights, and reserve resources for entrepreneurship, achieving the leap from theoretical knowledge to entrepreneurial practice [24].

Seek social support: The government should improve entrepreneurship policies and regulations. Set up a special support fund for artificial intelligence entrepreneurship, simplify the approval process, increase the subsidy amount, and extend the tax preference period [25]. Plan and build an "artificial intelligence entrepreneurship park" to provide site facilities, supporting services and integrated policy support. Develop entrepreneurship community organizations, carry out activities such as entrepreneurship salons, mentor consultations, and project roadshows to promote resource sharing, experience exchange and win-win cooperation, gather all forces to inject strong impetus into the artificial intelligence innovation and entrepreneurship of college

students, create a good social ecology, and promote the vigorous development of entrepreneurship projects [26].

5. Conclusions

This study focuses on the innovation and entrepreneurship abilities of college students. Through questionnaire surveys and quantitative analysis, the core conclusions are as follows: The overall abilities of Chinese college students are above average, and there are differences in performance in various dimensions. The innovation and entrepreneurship abilities of science and engineering students are slightly higher than those of liberal arts students. There is a highly positive correlation between artificial intelligence quotient and college students' innovation and entrepreneurship abilities, and it is a key factor affecting innovation and entrepreneurship abilities, which can explain 85.6% of the variation in innovation and entrepreneurship abilities.

The key factors affecting college students' innovation and entrepreneurship abilities are diverse and complex. At the educational level, the importance attached by colleges and universities to innovation and entrepreneurship education and the setting of innovation and entrepreneurship courses are crucial; in the family aspect, family economic status, family members' entrepreneurial experience and support play a joint role; in practical guidance, the guidance of innovation and entrepreneurship tutors and students' own practical experience are indispensable; in the social atmosphere, social recognition and support create an external environment.

Based on the above conclusions, to improve college students' innovation and entrepreneurship abilities requires a multi-pronged approach. Colleges and universities should optimize the curriculum system, strengthen practical teaching, and cultivate an innovation culture to enhance students' artificial intelligence quotient. Families should establish an innovation concept and strengthen guidance and incentives. Society needs to expand practical platforms, improve policies and regulations, and build a support network. By integrating various resources and implementing strategies precisely, the innovation and entrepreneurship potential of students can be stimulated, high-quality innovative talents can be cultivated for the artificial intelligence era, the innovation and entrepreneurship practice of college students can be effectively promoted, and continuous impetus can be provided for the innovation and development of the economy and society, helping to implement the national innovation-driven strategy and promote the transformation and upgrading of the economic structure.

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