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Research on the Influencing Factors of College Students' Entrepreneurship under the Background of Industry-Education Integration

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Abstract: In recent years, the global and regional employment situation has become increasingly severe, leaving college students relatively passive in an intensely competitive job market. This vulnerability is primarily due to their weak professional competitiveness, a lack of practical experience, and blocked information channels that limit their access to viable career opportunities. To address these critical challenges, carrying out robust school-enterprise cooperation from the perspective of industry-education integration emerges as a highly effective strategy. This integrated approach can significantly promote the entrepreneurship and employment of college students through three main pathways. First, it substantially improves students' professional and technical levels by aligning academic curricula with real-world industrial demands. Second, it optimizes the overall employment environment and expands available job posts by fostering direct pipelines between educational institutions and corporate sectors. Third, it provides essential structural support for college students' entrepreneurial endeavors, thereby improving the overall success rate of new business ventures. Therefore, to make full use of the positive role of "industry-education integration" in the employment and entrepreneurship of college students, a multi-stakeholder approach is required. Local governments, colleges and universities, and enterprises should start from various aspects to jointly promote industry-education integration. By strengthening collaboration between higher education and enterprises, giving full play to the practical education role of corporate entities, and standardizing enterprise practical activities, stakeholders can cultivate a highly skilled, adaptable, and entrepreneurial future workforce.

Keywords: industry-education integration; college students; entrepreneurship; employment competitiveness; school-enterprise cooperation

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1. Introduction

Since the introduction of the concept of "Mass Entrepreneurship and Innovation" in 2014, numerous colleges and universities have actively embraced entrepreneurship education. Industry-education integration, as a fundamental characteristic of education, distinguishes vocational education from other educational forms. This approach facilitates the cultivation of talent, the transformation of academic achievements into practical applications, and the advancement of technological innovation and industrial development. However, despite the progress made in entrepreneurship education within this framework, significant challenges persist [1]. By focusing on college students as the primary research subject, this paper explores the factors influencing their entrepreneurial endeavors in the context of industry-education integration. It also proposes targeted strategies and recommendations to enhance the efficiency and effectiveness of entrepreneurial talent cultivation, thereby contributing valuable theoretical insights to this field.

A review of existing literature reveals that researchers in China have extensively examined the relationship between industry-education integration and college students'

entrepreneurship. Studies have highlighted that the integration of resources and the deepening of industry-education collaboration play a pivotal role in clarifying talent cultivation frameworks, improving educational conditions, and fostering innovative models. Furthermore, the synergy between industry-education integration and school-enterprise cooperation has been identified as a critical driver of innovation and entrepreneurship education in higher education institutions [2, 3]. This collaboration not only supports enterprise development but also serves as an intrinsic force propelling the growth and evolution of colleges and universities [4].

Research on the practical implications of industry-education integration for college students' entrepreneurship has identified several challenges. These include the inadequacy of practical teaching platforms, limited participation from enterprises, insufficient interaction between schools and businesses, and a lack of alignment between academic disciplines and innovation-focused entrepreneurship education [5]. Additionally, issues such as unclear conceptual frameworks for innovation and entrepreneurship education, incomplete support mechanisms, and the absence of comprehensive school-enterprise collaborative initiatives have been noted. These challenges underscore the need for a more cohesive and integrated approach to fostering entrepreneurial skills and opportunities among students.

Further studies emphasize the necessity of achieving substantive integration in educational practices to deepen industry-education collaboration. This involves establishing entrepreneurial think tanks and creating a multidimensional education community that includes schools, enterprises, government bodies, and research institutions [6]. Such a framework aims to optimize resource allocation and enhance the conditions for talent cultivation. Additionally, the implementation of collaborative education mechanisms for innovation and entrepreneurship requires concerted efforts from various stakeholders, including government agencies, educational institutions, enterprises, and students. These collaborative efforts are essential for building a robust ecosystem that supports innovation and entrepreneurial development.

Through an extensive review of the literature, it becomes evident that while domestic research on the impact of industry-education integration on college students' entrepreneurship has yielded significant findings, there remains a gap in establishing a comprehensive theoretical framework to explain the underlying mechanisms. Addressing this gap is crucial for enhancing the quality of entrepreneurship education under the industry-education integration model. This paper seeks to address these deficiencies by providing a detailed analysis and proposing actionable strategies to improve the entrepreneurial outcomes of college students within this context [4, 7]. By doing so, it aims to contribute to the ongoing efforts to refine and advance entrepreneurship education in alignment with industry-education integration principles [8].

2. Current Situation of College Students' Entrepreneurship

2.1. Entrepreneurship Cognition

College students generally exhibit optimism regarding their personal development and future prospects. However, many lack a comprehensive understanding of their own capabilities, the dynamics of the market environment, and the critical thinking skills necessary for entrepreneurial success. This disconnect often leads to an overestimation of their abilities and an unclear sense of direction for their future endeavors. While they tend to focus on the potential economic benefits, social recognition, and elevated status that entrepreneurship might bring, they frequently overlook the challenges, uncertainties, and prolonged efforts required during the entrepreneurial journey. This superficial approach to entrepreneurship reflects a lack of deep reflection and strategic planning, which can hinder their ability to adapt and thrive in a rapidly evolving society. Furthermore, many college students adopt an idealistic view of entrepreneurship, perceiving it as a pursuit of dreams and values rather than a pragmatic approach to generating sustainable economic outcomes. This mindset, while inspiring, often clashes with the practical realities of

business development, such as resource allocation, market competition, and risk management. To succeed, it is essential for students to cultivate a balanced perspective that integrates their aspirations with a realistic understanding of the entrepreneurial landscape. By fostering critical thinking and encouraging a more nuanced approach to entrepreneurship, educational institutions can help students align their ambitions with actionable strategies, ultimately enhancing their chances of achieving meaningful and sustainable success.

2.2. Entrepreneurship Attitude

College students often encounter two significant challenges upon graduation: securing employment and pursuing entrepreneurial ventures. Many students experience uncertainty during the job search process, stemming from concerns about potential rejection by employers and doubts about their ability to meet workplace expectations. Similarly, the prospect of entrepreneurship can evoke apprehension, as students worry about the risks of failure and the possibility of missing out on stable employment opportunities. Despite these challenges, a majority of students maintain a positive outlook, demonstrating confidence in their ability to overcome obstacles within a relatively short timeframe. This optimism is largely attributed to their personal capabilities, as well as external support systems such as school initiatives, government subsidies, and access to small loans. These resources foster an encouraging environment that helps students cultivate constructive attitudes toward their future endeavors. However, entrepreneurial attitudes vary significantly based on family background. Students from economically disadvantaged families often exhibit a more cautious approach, prioritizing job stability over entrepreneurial risks due to concerns about financial security [9, 10]. In contrast, students from affluent families tend to display greater optimism and willingness to explore entrepreneurial opportunities, as their financial circumstances provide a safety net that mitigates the perceived risks associated with starting a business. These disparities highlight the influence of socioeconomic factors on students' career decision-making processes and underscore the importance of tailored support mechanisms to address the diverse needs of graduates from varying backgrounds.

2.3. Entrepreneurship Ability

At present, the majority of college courses emphasize the acquisition of professional knowledge, which is beneficial for students to excel in specific job roles. However, this focus often limits their ability to navigate broader career development pathways. Entrepreneurship, as a multifaceted endeavor, demands a combination of planning skills, a thorough understanding of national policies, interpersonal communication abilities, and self-management competencies. These essential skills are rarely integrated into traditional classroom instruction, leaving students ill-prepared for entrepreneurial challenges. Furthermore, the lack of practical social experience among students exacerbates this issue, as they struggle to engage in independent skill development. This deficiency not only diminishes their awareness of enterprise dynamics but also hinders their ability to adapt to the demands of the entrepreneurial landscape. Additionally, the mental state of students plays a critical role in their entrepreneurial readiness. The uncertainty associated with entrepreneurship often leads to anxiety, which can undermine their confidence and overall capability [11]. Addressing these gaps requires a more holistic approach to education, incorporating experiential learning opportunities, mentorship programs, and targeted training in entrepreneurial competencies. By fostering these skills, students can better align their academic knowledge with the practical demands of entrepreneurship, ultimately enhancing their ability to succeed in this competitive field.

3. Analysis of Influencing Factors of College Students' Entrepreneurship

3.1. *Disconnection between College Courses and Social Needs*

Many colleges and universities continue to rely on traditional teaching methods that have remained largely unchanged for decades. These methods often emphasize theoretical disciplines, requiring students to grasp abstract concepts and engage in independent learning. However, this approach can present significant challenges for students, as it demands a high level of cognitive ability to comprehend complex theories. Consequently, many students struggle to fully understand the material, which can lead to a lack of engagement, reduced autonomy, and a decline in overall teaching quality. Furthermore, the knowledge imparted through these courses tends to focus heavily on theoretical research, which does not align well with the practical demands of the job market. This mismatch creates a situation where graduates find it difficult to secure employment, as there are limited opportunities for roles that prioritize theoretical expertise. Beyond employment challenges, the gap between academic knowledge and the multifaceted realities of society often leaves graduates ill-prepared to navigate real-world complexities. This disconnect can result in confusion and uncertainty, further complicating their ability to adapt to professional environments or pursue entrepreneurial ventures. Addressing these issues requires a comprehensive reevaluation of educational strategies to ensure that academic programs are more closely aligned with societal needs and the evolving demands of the workforce. By integrating practical skills and real-world applications into the curriculum, institutions can better equip students to transition seamlessly from academic settings to professional or entrepreneurial endeavors, ultimately enhancing their prospects for success in an increasingly competitive environment.

3.2. *Lack of Practical Work Experience for College Students*

Traditional universities are often referred to as "ivory towers," a term that highlights their role in providing a focused and stable environment for academic learning. This setting is beneficial for students to acquire advanced theoretical knowledge without external distractions. However, this academic isolation can inadvertently result in a significant gap in practical skills and social understanding. College students frequently lack exposure to essential workplace competencies, such as effective communication techniques, professional etiquette, and the ability to navigate real-world business scenarios. These deficiencies can pose substantial challenges when students transition from academic life to employment or entrepreneurial ventures. Without adequate preparation in these areas, graduates may struggle to adapt to the dynamic demands of the professional world, potentially limiting their career growth and opportunities. To address this issue, universities could consider integrating more practical training into their curricula, such as internships, workshops, and collaborative projects with industry partners. These initiatives would help bridge the gap between theoretical knowledge and practical application, equipping students with the skills necessary to thrive in competitive environments. Furthermore, fostering a culture of experiential learning can enhance students' confidence and adaptability, enabling them to contribute effectively to society and the workforce. By striking a balance between academic rigor and practical exposure, higher education institutions can better prepare students for the complexities of modern professional life.

3.3. *Lack of Understanding of College Students by Enterprises*

Under the current higher education and employment model, enterprises generally have minimal interaction with students during their academic studies. This disconnect arises because most companies only engage with students when they are nearing graduation, typically during the recruitment process. The interview stage often serves as the first point of contact between enterprises and students, which creates significant challenges. Due to this lack of prior engagement, enterprises frequently harbor concerns

about the readiness and suitability of graduates for professional roles. These apprehensions can lead to a reduced willingness to hire recent graduates, thereby negatively impacting overall employment rates. Furthermore, this limited interaction also poses challenges for students who aspire to start their own businesses. Without meaningful communication or collaboration with companies during their studies, these entrepreneurial students face significant barriers in understanding market demands, accessing industry insights, and building essential networks. This gap in interaction not only hinders the professional development of students but also limits the ability of enterprises to identify and nurture potential talent early on. Addressing this issue requires a more integrated approach, where enterprises and educational institutions collaborate to create opportunities for students to engage with the corporate world throughout their academic journey. Such initiatives could include internships, mentorship programs, and industry-academic partnerships, which would foster mutual understanding and benefit both parties in the long term [7, 12].

4. Countermeasures and Suggestions

4.1. Strengthen the Publicity and Education of the "Industry-Education Integration" Training Model

The "industry-education integration" model represents a dynamic approach to education that combines teaching within real-world production environments and integrating production activities into the educational process. This model fosters a seamless connection between academic learning and practical application, enabling students to gain hands-on experience while simultaneously contributing to productive outcomes. To maximize the benefits of this approach, it is essential to enhance awareness and understanding of the "industry-education integration" model among colleges, universities, enterprises, educators, and students. By doing so, stakeholders can better appreciate its transformative impact on higher education institutions, businesses, and learners. Specifically, this model plays a pivotal role in equipping students with entrepreneurial skills, fostering innovation, and preparing them for the challenges of the modern workforce [13, 14]. Institutions should prioritize targeted campaigns, workshops, and training sessions to disseminate knowledge about this model, emphasizing its ability to bridge the gap between theoretical knowledge and practical expertise. Furthermore, enterprises can collaborate with educational institutions to create immersive learning environments that simulate real-world scenarios, thereby enhancing students' adaptability and problem-solving capabilities. By cultivating a shared understanding of the importance of this integration, stakeholders can collectively contribute to the development of a robust ecosystem that supports student entrepreneurship and drives sustainable growth in both education and industry.

4.2. Promote Industry-Education Integration and Strengthen Education Cooperation between Colleges and Enterprises

To enhance the entrepreneurship and high-quality development of college graduates, it is essential to establish a robust and interactive mechanism for school-enterprise cooperation. Such a mechanism can significantly improve students' employability, optimize the employment environment, and contribute to the sustainable development of employment and entrepreneurship. Colleges and universities must first define their roles and responsibilities clearly, ensuring that their training objectives and methodologies align with the demands of the job market. By integrating professional teaching characteristics with the specific needs of various enterprises, institutions can develop tailored and effective implementation plans that foster meaningful collaboration. This approach ensures that students acquire practical skills and knowledge that directly correspond to industry requirements, thereby enhancing their readiness for the workforce. Furthermore, the government plays a pivotal role as an external driving force in promoting industry-education integration [15, 16]. By creating a supportive environment

for school-enterprise partnerships, the government can encourage active participation from enterprises. Financial incentives, for instance, can serve as a powerful motivator for businesses to engage in cooperative initiatives. Additionally, the establishment of dedicated platforms for school-enterprise collaboration can facilitate communication and resource sharing, ultimately benefiting both students and enterprises. Such platforms can serve as hubs for innovation, enabling the exchange of ideas and fostering the development of new opportunities for employment and entrepreneurship. By aligning the efforts of educational institutions, enterprises, and government bodies, a comprehensive and sustainable framework for industry-education integration can be achieved. This framework not only addresses the immediate needs of the labor market but also lays the foundation for long-term economic and social development, ensuring that college graduates are well-equipped to contribute meaningfully to society.

4.3. Attach Importance to School-Enterprise Cooperation and Give Full Play to the Important Role of Enterprise Practice in Education

Further deepening the integration of industry and education while accelerating school-enterprise cooperation plays a crucial role in fostering college students' professional skills and enhancing their overall quality. This approach not only deepens students' understanding of enterprise operations and workplace dynamics but also guides them in forming appropriate career aspirations. By addressing employment mismatches and improving alignment between students' competencies and job requirements, such cooperation alleviates employment challenges faced by graduates and contributes to higher-quality employment and entrepreneurial outcomes. Colleges and universities should prioritize the cultivation of students' professional qualities and practical abilities, ensuring that educational content is seamlessly integrated with enterprise practices. This integration allows theoretical knowledge to be effectively applied in practical scenarios, thereby enhancing students' competence and adaptability [10]. Furthermore, institutions should emphasize the development of professional ethics and craftsmanship, fostering a sense of dedication and responsibility among students. The teaching system must respect the pivotal roles played by enterprises and students, creating a collaborative environment where both parties contribute to the learning process. By aligning educational objectives with industry needs, universities can produce graduates who are not only technically proficient but also possess the ethical and professional attributes required to excel in their careers. This holistic approach ensures that students are well-prepared to meet the demands of the modern workforce, ultimately benefiting both individuals and society as a whole.

5. Conclusion

College students represent a vital reservoir of talent for enterprises, serving as a critical resource for fostering innovation and driving sustainable growth. The development of high-quality industry-education integration and the deepening of school-enterprise cooperation offer multifaceted benefits. For enterprises, these initiatives streamline the recruitment of skilled professionals, enhance workforce quality, and contribute to their long-term development by aligning educational outcomes with industry needs. For students, such collaborations provide opportunities to cultivate professional literacy, develop comprehensive abilities, and gain practical experience that bridges the gap between academic learning and real-world applications. These experiences not only enrich their educational journey but also significantly enhance their employability and entrepreneurial capabilities, equipping them to navigate competitive job markets and contribute to innovation-driven economies. Furthermore, fostering industry-education integration and strengthening school-enterprise partnerships have broader societal implications. By improving the employment and entrepreneurship quality of college graduates, these efforts support economic stability, drive social progress, and promote sustainable development. Future research should explore innovative models

of collaboration, assess long-term impacts on workforce readiness, and identify strategies to scale successful practices across diverse industries and educational institutions. In conclusion, leveraging the industrial advantages of enterprises and prioritizing collaborative frameworks between schools and businesses is essential for cultivating a dynamic, skilled workforce and ensuring the healthy development of both the economy and society.

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