

## The impact of internet financial attributes and internet non-financial attributes on the entrepreneurial intention of college students

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**Abstract:** With the rapid development of the internet, its inherent financial and non-financial attributes have significantly promoted the growth of national enterprises, particularly entrepreneurial activities among college students. Although online business loans have become increasingly prevalent, the evolution of the internet has also introduced new challenges to enterprises' financial needs to some extent. This study aims to explore the combined impact of Internet Financial Attributes and Internet Non-financial Attributes on college students' Entrepreneurial Intention. Employing a questionnaire survey method targeting students with innovation and entrepreneurship aspirations, it systematically analyzes how these attributes influence their Entrepreneurial Intention to identify key factors. The findings indicate that both the non-financial and Internet Financial Attributes exert a significant positive influence on college students' entrepreneurial intentions. Specifically, the Internet Financial Attributes positively impact entrepreneurial intentions through three dimensions: broadening financing channels, reducing financing costs, and enhancing financial risk perception. Meanwhile, the Internet Non-financial Attributes exert a positive influence by fostering entrepreneurship cultivation, promoting human capital accumulation, and strengthening innovation and entrepreneurship education. Based on these findings, this study proposes targeted policy recommendations centered on six key factors of financial and non-financial attributes, aiming to provide theoretical reference and practical guidance for entrepreneurial practices among Chinese college students.

**Keywords:** College students', Entrepreneurial Intention, Financial attributes, Internet, Non-financial attributes.

### 1. Introduction

In September 2014, then-Premier of the State Council of China Li Keqiang formally proposed the strategic concept of Mass Entrepreneurship and Innovation at the World Economic Forum's Annual Meeting of the New Champions (Summer Davos Forum) [1]. The essence of the aforementioned initiative lies in stimulating endogenous momentum for economic development and market vitality across society, deepening supply-side structural reforms, optimizing resource allocation efficiency, and ultimately propelling China's economic development model from factor-driven to innovation-driven. This will achieve a transformation and upgrade characterized by higher quality, greater efficiency, and a more optimized structure. Subsequently, China's State Council and relevant ministries and commissions responded swiftly by systematically issuing and implementing a series of policy documents and incentive measures centered on innovation-driven development and entrepreneurship support. These initiatives span multiple dimensions, including fiscal support, tax incentives, financial services, talent recruitment, intellectual property protection, and the development of entrepreneurial incubation platforms [2]. They aim to foster a robust ecosystem conducive to the vigorous growth of innovation and entrepreneurship. Among these measures, the establishment of a national venture capital guidance fund, the streamlining of registration procedures for market entities, and the encouragement of university and research institute personnel to engage in part-time entrepreneurship have significantly

lowered barriers to entrepreneurship and provided comprehensive policy safeguards. This has not only effectively stimulated the endogenous dynamics of market players, promoted the emergence of new economic forms and the upgrading of traditional industries, but also injected new growth momentum into the Chinese economy, accelerated the optimisation and adjustment of the economic structure, and gradually constructed a modernised economic system with innovation at its core, laying a solid foundation for the Chinese economy to achieve sustainable high-quality development.

At present, China's economy has entered a critical stage of transformation from high-speed growth to high-quality development, and it has become a core priority to deeply stimulate the economy's endogenous power and innovation vitality [3]. The state has clearly instructed that it will continue to support the innovation and development of small and medium-sized enterprises, enhance the core competitiveness of the manufacturing industry, and strengthen the cultivation and leadership of "specialty, speciality, and new" small-giant enterprises. This has created a strategic opportunity for innovation and entrepreneurship, and the government has continued to guide its deeper development [4]. Due to the enterprising and fast-adapting qualities of the university student population, Chinese university students play a pivotal role in China's wave of innovation and entrepreneurship. To this end, the national level has intensively introduced incentive policies and pushed colleges and universities to deepen the reform of the Innovation and Entrepreneurship Education system and mechanism, mainly in order to improve the curriculum system and solve core challenges such as financing, experience, practice platforms, and teaching methods [5]. By organizing national competitions such as the "Internet Plus" Innovation and Entrepreneurship Competition for College Students and the "Challenge Cup" Entrepreneurship Plan Competition for Chinese College Students, the education sector has effectively put into practice the concept of "promoting creativity and education through competitions." The concept of "promoting creativity through competition and promoting teaching through competition" has been effectively implemented, and efforts have been made to cultivate students' awareness of innovation and practical abilities [6]. At the same time, governments at all levels and colleges and universities are actively building incubators and organizing all kinds of innovation and entrepreneurship activities, which provide space and theoretical support for college students to show their talents, and lay a solid foundation for them to devote themselves to innovation and entrepreneurship in the future, and to serve the modernization of the country.

The sustainable development of innovation and entrepreneurship not only relies on policy support but also requires a diversified and adaptable funding mechanism [7]. Currently, China's start-ups and SMEs are financed mainly through two paths: equity and debt. However, equity financing channels such as the securities market have high entry thresholds, which are difficult for early-stage innovation and entrepreneurship enterprises to reach; while private equity investment is limited by the imperfect exit mechanism of the capital market, and its development is inhibited. In terms of debt financing, traditional commercial banks, due to their risk appetite and information asymmetry issues, are less willing to lend to start-ups that lack business records and collateral, resulting in high financing costs [8]. Funding bottlenecks have severely constrained the growth and expansion of innovative and entrepreneurial enterprises, creating a vicious cycle of financing difficulties. Internet finance, as a new technology-driven financial industry, integrates information and communication technology and covers crowdfunding, financial e-commerce, and third-party payment modes [9]. Since 2014, the Chinese government has encouraged its healthy development and promoted deep integration with the real economy. After 2018, it has increasingly moved toward standardized regulation. Its scaled development has effectively alleviated information asymmetry, optimized resource allocation, and served as a valuable supplement to traditional finance, providing crucial support for the high-quality development of innovation and entrepreneurship. In 2025, the Renmin University of China series "China College Student Entrepreneurship Report" revealed that as China's scientific and technological innovation and technological development levels continue to advance, the willingness of college students to engage in innovation and entrepreneurship shows a sustained upward trend [10]. However, compared to countries like the United States, which have cultivated robust ecosystems for college student innovation

and entrepreneurship since the 1970s, the proportion of college students in China expressing entrepreneurial aspirations remains notably low. Given the high level of technological innovation, literacy, and strong adaptability commonly found among college students, they are regarded as a key driving force for innovation and entrepreneurship. They demonstrate significant potential, particularly in fostering specialized, refined, distinctive, and innovative “small giant” enterprises. Fully stimulating and guiding the innovative and entrepreneurial vitality of this group holds strategic significance for advancing the nation's high-quality economic development.

This study aims to construct a comprehensive analytical framework to deeply explore the influence mechanism of internet finance and non-finance dual dimensions on college students' willingness to engage in internet-based innovation and entrepreneurship. Against the backdrop of China's slowing economic growth and a complex and volatile international environment, this research seeks to inject new momentum into social development by enhancing students' innovation and entrepreneurship capabilities. Therefore, a cross-sectional design will be adopted to conduct direct surveys among college students, precisely identifying the key drivers influencing their enthusiasm for internet-based innovation and entrepreneurship. The theoretical and practical significance of this research lies in its in-depth analysis of how six core elements, the financial attributes of the internet (expanding financing channels, reducing financing costs, and enhancing financial risk awareness) and its non-financial attributes (fostering entrepreneurial spirit, accumulating human capital, and promoting innovation and entrepreneurship education), specifically influence university students' entrepreneurial behavior. The anticipated findings will not only provide highly actionable practical guidance for Chinese university students to effectively mitigate potential risks during entrepreneurship but also offer valuable insights for policymakers. This will further optimize the ecosystem supporting student innovation and entrepreneurship, thereby promoting their comprehensive development and contributing to national modernization efforts.

## 2. Literature Review

### 2.1. Connotations of Internet Financial Attributes

Internet finance, as an innovative product, has had a profound impact on the traditional financial model. Wei [11] conducted a study on the regulation and supervision of Internet banking under network finance. Wei [11]. Yao [12] was the first to introduce the concept of Internet finance in China, and they believe that it influences the financial model through modern information science and technology. As an important supplement to traditional finance, it can effectively reduce transaction costs and improve the efficiency of resource allocation Yao [12]. Guo [13] also emphasized the positive role of internet finance in optimizing resource allocation, risk distribution, and payment settlement [13]. Internet finance has promoted the change of China's traditional financial transactions and mode of operation, and at the same time, it has had a significant impact on the production and life of residents and the development of enterprises [14].

Several studies have explored the specific mechanisms by which Internet finance influences the willingness to innovate and start a business. Valdez-Juárez et al. [15] analyzed the effect of personal traits on men's and women's innovative entrepreneurial intentions through an experimental test. Valdez-Juárez et al. [15]. Shahrar et al. [16] said that financing channels and financing costs are the key factors affecting women's intention to innovate and start a business, while risk-taking ability and value orientation mainly affect men's intention to innovate and start a business, suggesting that there are significant differences between men and women in the factors influencing their willingness to innovate and start a business Shahrar et al. [16]. Sulillari [17] also argued that factors such as funding channels, costs, and the risk of entrepreneurial funding all have an impact on the willingness to innovate and start a business [17].

Internet finance is significantly different from the traditional financial transaction model, and its core advantage lies in broadening financing channels. Guo [13] points out that internet finance enables efficient matching of data, so that financing activities do not have to rely entirely on traditional financial

institutions and can be conducted directly through the internet Guo [13]. D'Andrea and Limodio [18] said that Internet finance improves the speed of capital flow through online channels and promotes the development of interest rate marketization, thus effectively boosting the willingness of college entrepreneurs D'Andrea and Limodio [18]. Yin [19] further argues that Internet finance solves the problem of a single financing channel for SMEs, provides more diversified financing options, improves financing efficiency, and reduces financing costs for SMEs in the process of development, which makes college students more inclined to start their own business through the Internet [19].

The ease of Internet finance directly leads to reducing financing costs. Hasan et al. [20] emphasized that the rapid development of Internet finance has improved social financial services, effectively addressed issues of financing difficulties, high financing costs, and slow financing for small and micro-enterprises, and laid the foundation for university students' entrepreneurship Hasan et al. [20]. Piao and Lin [21] find that Internet finance can enhance the efficiency of financial resource allocation, which in turn significantly promotes corporate R&D innovation Piao and Lin [21]. Saroj et al. [22] believe that the higher the level of industrial development, the level of traditional financial development, and the level of human capital development, the stronger the role of Internet finance in promoting entrepreneurship and innovation among college students [22].

However, Internet finance also requires entrepreneurs to have a strong focus on risk management. Qiao et al. [23] argue that Internet finance can change the sensitivity of bank risk behavior to monetary policy, has a greater impact on large banks than on private banks, and that the entrepreneurial intention of college students is significantly affected by Qiao et al. [23]. Jin and Liu [24] pointed out that the development of Internet finance fits the characteristics of the innovative financing needs of small and micro-enterprises and can enrich the supply of funds in the regional financial market Jin and Liu [24]. Iannamorelli et al. [25] warn that the problem of information asymmetry between borrowers and lenders may increase the risk of financing, so the impact of perceived risk on the Entrepreneurial Intention of College Students is crucial [25].

## 2.2. Connotations of Internet Non-Financial Attributes

Studies have generally found that the personality characteristics of university student entrepreneurial groups, including factors such as entrepreneurship, human resource accumulation, and innovation and entrepreneurship education and training, are key elements in analyzing youth entrepreneurial activity and revealing the intrinsic dynamics that drive innovative behavior. Mia et al. [26] employed the theory of planned behavior framework in their research, indicating that entrepreneurs' decision-making processes are constrained by individual factors such as emotional experiences, value judgments, and cognitive understanding. Mia et al. [26]. Gelfand et al. [27] elucidated that when individuals encounter uncertain events, the perception of social norms and behavioral control jointly constitute key variables in the evolution of such events. Gelfand et al. [27]. Li et al. [28], on the other hand, defined proactive personality traits, emphasising that this type of personality not only shapes individual behaviour and environmental interactions but also enhances job performance and career trajectories, as well as positively affects willingness to innovate in practice, thus effectively facilitating creative activity in entrepreneurial processes [28].

The widespread entrepreneurship in the online environment significantly increases the motivation of university students to participate in innovation and entrepreneurship. Porfirio et al. [29] demonstrated that specialized training aimed at entrepreneurship has a significant effect on enhancing willingness to innovate and start a business Porfirio et al. [29]. Ganefri et al. [30] pointed out that the ever-reinforcing entrepreneurial innovation concepts and developmental awareness of online platforms tend to make university students form a dependent mindset Ganefri et al. [30]. Zhang et al. [31] believe that, in contrast, the adoption of practice-oriented innovation and entrepreneurship training programmes and hands-on training can produce a more prominent effect, which plays a key role in mobilising university students' enthusiasm for innovation and entrepreneurship [31].

The optimal allocation of human resources in the online environment has also significantly increased the motivation of university students to engage in entrepreneurial activities. Research data from Ren et al. [32] show that the proportion of young people involved in Innovation and Entrepreneurship Education with post-secondary education is as high as 85 percent [32]. This phenomenon is a good indication that university students have become the core force driving the development of the innovation economy. Notably, the pursuit of personal ideals and the creation of economic value constitute key factors in stimulating college students' entrepreneurial enthusiasm. This reflects the unique talent advantages this group possesses in innovation and entrepreneurship, making in-depth exploration of their individual characteristics of significant practical value.

Innovation and entrepreneurship education play a crucial role in fostering entrepreneurial awareness among college students. Shahriar et al. [16] demonstrated through research based on the Global Entrepreneurship Monitor (GEM) framework that factors such as educational training and domestic market openness exert a significant influence on college students' entrepreneurial intentions, while government support programs and the sociocultural environment exert a moderate influence. Shahriar et al. [16]. Atchley et al. [33] point out that Higher education continues to influence the cognitive development of university students, making them highly receptive to policy information Atchley et al. [33]. Chahal et al. [34] believe that a sound policy framework can effectively motivate university students to start their own businesses [34].

### 2.3. Hypothesis Development

#### 2.3.1. Internet Financial Attributes and Entrepreneurial Intention

Internet finance is defined as the product of the effective integration of internet technology and financial functions [35]. On the one hand, it leverages advanced technologies such as artificial intelligence and cloud computing to achieve a fundamental technological revolution in financial transactions, thereby giving rise to an "internet economy" model characterized by sociological and psychological features. On the other hand, according to the analytical perspective of the financial function view, Internet finance still has the core functions of traditional finance, including the allocation of resources, risk management, payment and settlement, as well as the transmission of information. Therefore, despite the emergence of Internet finance as a new mode of financial business, the essence of its inherent financial function has not changed. With the rapid development of information technology and digitalization, Internet finance has made a "destructive creation" of the traditional financial model in many aspects, such as capital financing, commodity clearing, and financial services. The Internet can effectively alleviate the problem of information asymmetry prevalent in the market by breaking down the time and space constraints of the trading parties [36]. In addition, Internet finance, based on big data, provides a more convenient and efficient means of payment and settlement, and promotes the precise matching of the supply and demand of funds, thus realizing the optimal re-allocation of resources and significantly improving the overall efficiency of financial operations. In view of the profound transformative power demonstrated by Internet finance and its role in reshaping the financial ecosystem, this study will focus on the three most critical aspects of its Internet financial attributes for in-depth discussion. These aspects mainly include broadening financing channels, reducing financing costs, and enhancing financial risk perception.

*H<sub>1</sub>: Internet Financial Attributes Have a Significant Impact on Entrepreneurial Intention of College Students.*

Internet finance, through its unique mechanisms, can significantly promote the realization of college students' dreams of innovation and entrepreneurship. Internet finance leverages emerging information technologies such as "Internet Plus" to significantly reduce the time required for fundraising and financing while substantially lowering associated costs. According to the information asymmetry theory, there is often a mismatch between demand and supply in traditional financial business, which increases the search costs for both parties to the transaction. However, internet technology is able to use big data processing to accurately match the most suitable lenders and borrowers, thus effectively reducing the costs incurred in finding partners [37]. In addition, buyers and sellers on the Internet

platform can increase the frequency of exchange of transaction information through online communication, which in turn increases the probability of reaching a deal, enabling college students to focus more on their core business in the process of innovation and entrepreneurship, and strive for more project implementation time. With the aid of Internet finance, the interest costs incurred in the process of university student entrepreneurship are expected to drop significantly [38]. Traditional financial lending is categorised into direct and indirect lending [39]. Direct lending usually refers to financing through small lending companies or private sources, which, while pursuing higher profits, are accompanied by a certain level of compliance risk and, therefore, generally have higher interest rates on their financing than indirect lending. Indirect lending, on the other hand, is mainly conducted through third-party financial institutions, such as banks, which earn interest margins in the lending process. Internet finance can effectively address the drawbacks of these two types of traditional lending methods. Internet finance achieves economies of scale through the creation of standardised products, which enables it to meet the capital needs of "long-tail customers" and thus reduce overall transaction costs. For university students at the start-up stage, this type of low-interest or even interest-free borrowing can greatly alleviate their borrowing pressure and provide a relatively low-risk business environment, thus significantly enhancing the feasibility of innovation and entrepreneurship. Internet finance makes full use of the advantages of information technology, effectively reducing the time and capital costs of borrowing [18]. This reduction in cost will reduce the financial pressure on students to be innovative and entrepreneurial, create a more favourable environment for development, and empower students to spend more time and energy pursuing and realizing their entrepreneurial intentions.

*H<sub>16</sub>: Reducing Financing Costs within Internet Financial Attributes significantly impacts the Entrepreneurial Intention of College Students.*

As a new form of financial means, the mode of Internet finance is more innovative than traditional financial methods, covering diversified channels such as online payment, e-commerce sales, and online crowdfunding, and therefore, the existence of financial risks is also more diversified. Enhancing the financial risk perception of college students can effectively increase their entrepreneurial intention [16]. As Internet financial products continue to emerge, so does the demand for users' financial literacy. Most university student groups have extensively used online financial payment tools, but due to a lack of necessary theoretical knowledge in financial risk management, university students often fail to take full advantage of Internet finance. Although Internet finance provides convenient and efficient channels for borrowing and fundraising, its interest rate structures, repayment methods, and profit models remain relatively complex. For example, e-commerce financing channels can be subdivided into various types such as B2C, C2C, CPS, O2O, and independent malls [40]. There are significant differences between the various types of channels in terms of information exchange, capital flows, business plans, and tax payments. If users fail to deeply understand and analyze these specific operation processes and profit models, and control the risk factors, it may lead to wrong investment decisions, thus making the cost of online financial lending far exceeding the cost of traditional bank loans, which in turn reduces the innovation and entrepreneurship enthusiasm of college students. In contrast, those college students with extensive financial risk perception knowledge were able to clearly understand the profit models of each platform. College students can find the best financing options for themselves and save money. This ability to make risk-aware, informed decisions not only boosts their confidence and interest in financial instruments but also contributes to a greater tendency for university students to actively participate in innovative entrepreneurial activities. Therefore, financial risk perception plays a crucial role in the process of college students using internet finance to realize their innovative entrepreneurial dreams, which directly affects the financing efficiency and the possibility of entrepreneurial success.

*H<sub>16</sub>: Financial risk perception in internet financial attributes has a significant effect on the entrepreneurial intention of college students.*

### 2.3.2. Internet Non-Financial Attributes and Entrepreneurial Intention

The impact of Internet financial attributes on entrepreneurial intention of college students, in addition to its significant financial attributes, the role of its Internet non-financial attributes should not be ignored [41]. First of all, the development of Internet finance has broadened the horizons of college students from an entrepreneurial perspective, effectively stimulated their sense of innovation, and fostered innovative thinking. At the same time, it has enabled college students to build extensive professional networks during their studies, significantly enhancing their practical skills. Moreover, innovation and entrepreneurship education conducted within universities has further strengthened students' entrepreneurial intentions [41]. College students can learn about cutting-edge fields such as financial markets and artificial intelligence while using internet financial tools. It is worth noting that in the e-commerce financing model, the fund supplier is usually an e-commerce enterprise or a microfinance company, which sets specific restrictions and requirements on the demand side of the funds, which are usually limited to the customers of the e-commerce platform and need to have corresponding transaction records [42]. E-commerce companies also analyze transaction data to assess customers' growth potential, thereby determining loan limits [43]. Many university students must continue to optimize their sales strategies and business models if they wish to try their hand at innovative entrepreneurship and obtain a more stable and abundant flow of capital through new product development, online shop sales, or live streaming. This practical process encourages university students to rapidly expand their network of contacts and adapt to market demands. In this era of rapid advancement in the internet and information technology, winning consumer favor requires the deep integration of big data platforms and cloud computing [44]. This includes achieving intelligent recognition of consumer preferences, implementing iterative upgrades to product designs, and optimizing marketing approaches. These are the core components of Innovation and Entrepreneurship Education, designed to equip college students with strong market awareness [45]. Entrepreneurship cultivation, human capital accumulation, and high-quality innovation and entrepreneurship education not only stimulate innovative thinking among university students but, more importantly, significantly boost their confidence and intrinsic motivation for innovation and entrepreneurship once their ideas gain market recognition. This, in turn, strengthens their commitment to pursuing innovation and entrepreneurship.

*H<sub>2</sub>: Internet Non-financial Attributes Significantly Influence the Entrepreneurial Intention of College Students.*

Internet finance has significantly enhanced the entrepreneurial intention of college students by cultivating core entrepreneurial competencies such as innovative spirit, pioneering spirit, and contemporary spirit. Entrepreneurship is typically defined as a comprehensive capability characterized by innovation, creativity, and the courage to explore boundless development potential, enabling the generation of maximum economic benefits with minimal capital investment [46]. This quality holds immense appeal for college graduates just entering the workforce. Internet finance provides college students with a platform to engage with and understand new business models through its diverse products and service offerings [47]. At times, the crowdfunding model within internet finance encourages individuals to transform innovative concepts into fundable projects. This necessitates that college students possess the ability to concretize abstract ideas and effectively communicate them to the market, thereby directly stimulating their innovative thinking. The spirit of the times embodied in internet finance, namely, the keen insight into and application of information technology and digital trends, has also profoundly influenced university students [48]. By participating in internet finance activities, college students gain firsthand experience with the business logic of “leveraging small investments for big returns”, that is, how to achieve substantial returns with relatively modest initial investments through innovative business models and efficient resource integration. The exemplary impact of these success stories, coupled with the sense of accomplishment gained through practical experience, has significantly boosted university students' entrepreneurial confidence and intrinsic motivation. Therefore, internet finance not only provides a financing tool but, more importantly, serves

as a practical platform and educational arena that comprehensively shapes college students' entrepreneurial spirit, thereby strengthening their resolve and willingness to engage in innovation and entrepreneurship.

*H<sub>2a</sub>: Entrepreneurship Cultivation within the Internet Non-financial Attributes exerts a significant influence on the Entrepreneurial Intention of College Students.*

Human capital accumulation also constitutes a significant factor influencing the entrepreneurial intention of college students. The internet, with its inherent openness, functions like a vast open marketplace platform [49]. When utilizing internet finance for funding, college students must gain a thorough understanding of the personnel structure, business processes, and resource allocation of relevant enterprises [50]. This learning process effectively establishes their business concepts and deepens their understanding of market exchange and cooperation mechanisms. Particularly noteworthy is that college students can gradually accumulate valuable project contacts and practical management experience by continuously advancing their business operations and participating in project investments. According to Arrow [51] Learning by Doing theory, the continuous accumulation of human capital and operational experience can significantly enhance work and production efficiency, with this improvement being particularly pronounced in the initial stages [52]. Therefore, accumulating knowledge and practical experience related to innovation and entrepreneurship through internet finance platforms during one's student years can provide the fundamental human capital elements necessary for students to genuinely engage in innovation and entrepreneurship practices later on. This early accumulation of human capital reserves can effectively reduce trial-and-error costs in future innovation and entrepreneurship endeavors, thereby significantly increasing the success rate of such initiatives. Enhanced expectations of success, in turn, bolster college students' entrepreneurial confidence, thereby significantly increasing their Entrepreneurial Intention of College Students [53]. Internet finance not only provides a financing tool but also serves as a practical arena where college students learn and grow through hands-on experience, accumulating the core competencies needed to navigate market challenges. Together, these elements form a solid foundation for college students to engage in innovation and entrepreneurship.

*H<sub>2b</sub>: Human Capital Accumulation within the Internet Non-financial Attributes significantly influences the Entrepreneurial Intention of College Students.*

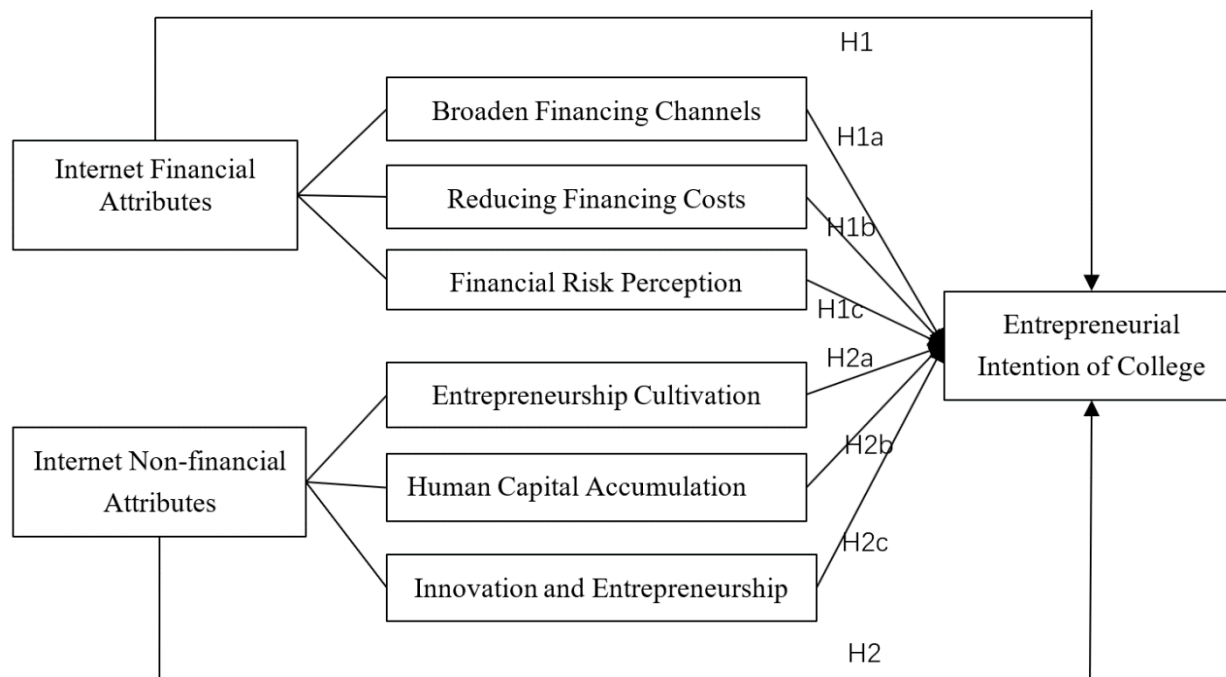
New entrepreneurship education has a significant impact on the entrepreneurial intention of college students. Internet finance encompasses multiple financing models, while innovation and entrepreneurship projects also exhibit diverse characteristics, such as new product development, innovative service model design, and retail online store operations [54]. Different types of innovation and entrepreneurship projects have distinct requirements for financing models. New product development projects typically involve high uncertainty, high upfront sunk costs, and inherent risks [55]. In such innovation and entrepreneurship endeavors, project teams may adopt a partnership model where risks are shared and profits are distributed equally. The specific internet finance model chosen for financing is closely tied to the industry sector, project type, and implementation approach of the innovation or startup. This necessitates entrepreneurs to analyze each situation individually and flexibly utilize various financial instruments. If college students lack a clear understanding of the concepts and knowledge related to innovation and entrepreneurship, even with the financial backing provided by internet finance, they may fail to achieve optimal resource allocation. This would significantly diminish the positive impact of internet finance [56]. In such circumstances, funds may be used inefficiently, potentially leading to project failure and subsequently dampening their entrepreneurial enthusiasm. In stark contrast, if college students receive systematic and comprehensive Innovation and Entrepreneurship Education before utilizing internet finance for innovation and entrepreneurship, they will be better equipped to accurately identify and select the optimal lending model. This capacity for informed decision-making not only enables the positive role of internet finance to be better leveraged, maximizing its capital efficiency, but also significantly enhances the success rate of entrepreneurial projects. Therefore, Innovation and Entrepreneurship Education plays an indispensable and pivotal role



in guiding college students to effectively utilize internet financial resources, make wise financing decisions, and ultimately boost their Entrepreneurial Intention of College Students.

*H<sub>2c</sub> Innovation and entrepreneurship education within internet non-financial attributes significantly influences the entrepreneurial intention of college students.*

#### 2.4. Research Framework



**Figure 1.**  
Research Framework.

### 3. Methodology

#### 3.1. Participants

To ensure the cutting-edge nature and validity of the research data, this study employed a purposive sampling strategy to select and identify the survey subjects [57]. The researchers defined the target group as Chinese university students who demonstrated Entrepreneurial Intention and had already engaged in entrepreneurial activities between September 2024 and September 2025, specifically those graduating in the classes of 2024 and 2025. Setting research scope limitations aims to mitigate potential cognitive biases. Specifically, this approach ensures that surveyed college students possess actual entrepreneurial experience, enabling them to clearly recognize factors influencing their startup journeys and provide the most accurate assessments. This avoids cognitive biases that might arise from merely expressing Entrepreneurial Intention or experiencing unsuccessful ventures, thereby enhancing the quality of research data. During data collection, to specifically identify and include university students with practical entrepreneurial experience, the research team established in-depth partnerships with several prominent Chinese online entrepreneurship platforms. These platforms include but are not limited to 36Kr, Lieyunwang, AngelHub, Yunmai, WeChat Official Accounts, Weibo bloggers, Douyin creators, and NetEase Cloud Classroom. The aforementioned internet-based startup platform provided a list of potential research subjects for the sample selection in this study. Subsequently, this study primarily focused on college students in Guangdong, Fujian, Jiangsu, Henan, and Hebei provinces. Researchers conducted both paper-based and electronic questionnaire surveys using randomly selected

participants from these lists. To ensure data authenticity and reliability, the research team implemented strict measures to guarantee that each questionnaire was completed independently by the respondent. This process aimed to minimize external interference, thereby enhancing the data's internal validity.

### 3.2. Instruments

To ensure systematic and standardized data collection, this study employed a structured questionnaire built using a five-point Likert scale for information gathering [58]. The questionnaire design follows a hierarchical indicator system, primarily comprising three primary indicators and six secondary indicators, which are further broken down into twenty-one tertiary indicators. The primary indicators of the questionnaire include Internet Financial Attributes, Internet Non-financial Attributes, and the Entrepreneurial Intention of College Students. These primary indicators constitute the core dimensions of the study. At the secondary indicator level, the questionnaire further breaks down the specific manifestations of each attribute. Among these, the secondary indicators about internet finance primarily encompass Broadening Financing Channels, Reducing Financing Costs, and Financial Risk Perception. These indicators are designed to measure the specific role of internet finance in providing funding support and risk management for college student entrepreneurship. Correspondingly, secondary indicators about Internet Non-financial Attributes include Entrepreneurship Cultivation, Human Capital Accumulation, and Innovation and Entrepreneurship Education. These metrics aim to evaluate the impact of non-financial factors on enhancing the entrepreneurial intention and capability development of college students. The twenty-one tertiary indicators constitute the specific consultation questions within the questionnaire. They further refine the content covered by the secondary indicators, thereby ensuring a comprehensive and in-depth measurement of the research variables. This multi-level indicator system design aims to comprehensively capture the diverse factors influencing the Entrepreneurial Intention of College Students and lay a solid foundation for subsequent data analysis.

**Table 1.**  
Survey Scale.

Primary indicator	Second-level indicators	Observation Indicators	Scope of Questions	References
Internet Financial Attributes (IFA)	Broaden Financing Channels (BFC)	Debt Financing (BFC-1) Government Subsidies (BFC-2) Venture Capital (BFC-3)	Five-Level Evaluation Criteria	Claessens and Perotti [59], Greenwood [60], and Gupta and Sapienza [61]
	Reducing Financing Costs (RFC)	Reduce Interest Expenses (RFC-1) Optimize Capital Structure (RFC-2) Enhance Credit Rating (RFC-3)	Five-Level Evaluation Criteria	Filatova et al. [62], Goldstein and Huang [63], and Song et al. [64]
	Financial Risk Perception (FRP)	Market Fluctuations (FRP-1) Policy Changes (FRP-2) Industry Competition (FRP-3)	Five-Level Evaluation Criteria	Burns et al. [65], Chang [66] and Pflueger et al. [67]
Internet Non-financial Attributes (INFA)	Entrepreneurship Cultivation (EC)	Social Responsibility (EC-1) Global Perspective (EC-2) Industry Growth Potential (EC-3)	Five-Level Evaluation Criteria	Reis et al. [68], Taylor and Zhang [69], and Xia [70]
	Human Capital Accumulation (HUA)	Digitalization of Human Resources (HUA-1) Flexibility of Compensation (HUA-2) Extent of Professional Network (HUA-3)	Five-Level Evaluation Criteria	Catalano et al. [71], Ivanová et al. [72], and Martinez-Sanchez et al. [73]
	Innovation and Entrepreneurship Education (IEE)	Entrepreneurial Opportunities (IEE-1) Business Plans (IEE-2) Startup Projects (IEE-3)	Five-Level Evaluation Criteria	Kayyali [74] Matoug et al. [75], and Mukhamedshin et al. [76]
Entrepreneurial Intention of College Students (EICS)	—	Employment Situation (EICS-1) Entrepreneurship Support (EICS-2) Social Environment (EICS-3)	Five-Level Evaluation Criteria	Al-Qadasi et al. [77], Barba-Sánchez et al. [78], and Lu et al. [79]

**Source:** Compiled by researchers based on historical documents.

After determining the main content of the research, the researcher proceeded to develop the questionnaire. The questionnaire is primarily divided into two sections. Part One aims to collect demographic statistics, covering five dimensions: gender, educational attainment, province of entrepreneurship, reasons for starting a business, and outcomes of entrepreneurship. These data provide essential contextual information for subsequent variable analysis. The second part of the questionnaire contains the core content of this survey, the primary variables of interest to researchers.

During the initial stages of questionnaire development, the research team primarily employed the Delphi method. By inviting domain experts to evaluate and iteratively refine the questionnaire content, the researchers ensured the validity of the measurement tool. This expert review process effectively enhanced both the theoretical rigor and practical applicability of the questionnaire. To further guarantee the questionnaire's validity and reliability, the researchers conducted a pre-survey. The research team randomly selected 80 respondents from the target survey population and distributed the questionnaire to them. The pilot study yielded 78 valid responses, achieving a 97.5% response rate. Reliability analysis of the pilot data revealed that Cronbach's alpha coefficients for all measured constructs exceeded the widely accepted threshold of 0.70. This outcome demonstrates the questionnaire's strong internal consistency and reliability, confirming its ability to accurately measure the variables under investigation. Consequently, the questionnaire meets all necessary conditions for conducting the subsequent formal survey.

### 3.3. Sample and Data Collection

According to statistics from China's Ministry of Education, the number of university graduates in China reached 11.79 million in 2024 and is projected to reach 12.22 million in 2025. Therefore, the cumulative target population size for this study amounts to 24.01 million.

Based on the classic sample size calculation method proposed by Krejcie and dan Morgan [80], a sample size of 384 is sufficient to achieve statistical significance when the population size exceeds 1 million [80]. In light of this, the target sample size for this study was set at 400 questionnaires. The research team fully considered potential issues during data collection, such as respondent non-cooperation, questionnaire loss, and non-standard completion, and made corresponding projections. Ultimately, the team obtained 384 valid questionnaires. This valid sample size precisely meets the minimum statistical requirement, ensuring the reliability of the research findings. Consequently, the sample collection process for this study is deemed valid and capable of supporting subsequent data analysis and conclusion inference.

### 3.4. Data Analysis

The main research scale used in this study is a second-order scale design, which helps to better capture the complex structure of latent variables. Therefore, the researchers decided to use Analysis of Moment Structures (AMOS) statistical software for data analysis. First, researchers will utilize AMOS to analyze the correlations among variables, thereby gaining an initial understanding of the interrelationships between them. Subsequently, this study will construct a structural equation model (SEM). Structural equation modeling can simultaneously handle multiple causal relationships and assess measurement relationships between latent variables and observed variables. By constructing and testing structural equation models, researchers aim to validate the hypotheses proposed in this study, thereby elucidating the correlations among variables and their underlying mechanisms. This analytical approach provides a more comprehensive and nuanced picture of the relationships between variables, offering robust statistical support for the research conclusions.

## 4. Results

### 4.1. Construct Reliability and Validity

This study will employ a series of statistical indicators to conduct rigorous reliability and validity analyses of the scales used. Researchers will calculate Cronbach's  $\alpha$  to assess the internal consistency reliability of the scales [81]. Simultaneously, researchers will calculate two metrics: Composite Reliability (CR) and Average Variance Extracted (AVE). These metrics will be used collectively to assess the scale's structural reliability and convergent validity [82]. By analyzing these key indicators, this study aims to comprehensively validate the measurement quality of the scale, ensuring the accuracy of subsequent data analysis and the reliability of conclusions.

**Table 2.**  
Reliability and Validity Test Results.

Primary Dimension	Secondary Dimension	Variable	Factor Loadings	Cronbach's	CR Value	Ave Value
IFA	BFC	BFC-1	0.874	0.870	0.912	0.776
		BFC-2	0.907			
		BFC-3	0.861			
	RFC	RFC-1	0.856	0.834	0.887	0.724
		RFC-2	0.859			
		RFC-3	0.838			
	FRP	FRP-1	0.873	0.878	0.911	0.773
		FRP-2	0.893			
		FRP-3	0.871			
INFA	EC	EC-1	0.880	0.863	0.908	0.767
		EC-2	0.905			
		EC-3	0.841			
	HUA	HUA-1	0.910	0.915	0.936	0.830
		HUA-2	0.921			
		HUA-3	0.902			
	IEE	IEE-1	0.865	0.877	0.908	0.768
		IEE-2	0.896			
		IEE-3	0.867			
EICS	—	EICS-1	0.802	0.806	0.856	0.665
		EICS-2	0.834			
		EICS-3	0.811			

The measurement tools in this study comprise three primary latent variables. Among them, the latent variable “Internet Financial Attributes” consists of three secondary dimensions and nine observed indicators; similarly, the latent variable “Internet Non-financial Attributes” comprises three secondary dimensions and nine observed indicators. The latent variable “Entrepreneurial Intention of College Students” is directly composed of three observed indicators without secondary dimensions.

Researchers conducted reliability testing on the 21 core measurement items in the questionnaire, primarily employing Cronbach's  $\alpha$ . Analysis results indicate that Cronbach's alpha coefficients for all measured constructs ranged between 0.806 and 0.915. These values exceeded the widely accepted threshold of 0.80, indicating strong internal consistency among the measured variables. Consequently, each indicator in this questionnaire effectively and reliably reflects its corresponding latent variable, fully demonstrating the measurement tool's validity and providing a robust data foundation for subsequent research.

Concurrently, this study employed Composite Reliability (CR) to assess the reliability of the scales utilized. The analysis revealed that the CR values for all measured constructs ranged between 0.856 and 0.936. These figures significantly exceeded the widely accepted benchmark of 0.80. These results conclusively demonstrate that each measured construct exhibits strong internal consistency reliability, thereby providing a robust data foundation for subsequent in-depth research.

More crucially, this study employed Average Variance Extracted (AVE) to examine the convergent validity of the scales. Analysis revealed that the AVE values for all measured constructs ranged from 0.665 to 0.830. These values significantly exceeded the widely accepted threshold of 0.50. This fully demonstrates that each observed indicator effectively and accurately reflects its corresponding latent construct, confirming the scale's sound internal structure. Consequently, the measurement tools developed in this study exhibit excellent convergent validity, providing a reliable foundation for subsequent data analysis and hypothesis testing.

#### 4.2. Factor Analysis

This study will employ Exploratory Factor Analysis (EFA) to process the data. This method primarily utilizes two statistical procedures, the Kaiser-Meyer-Olkin (KMO) test and Bartlett's

sphericity test, to assess whether variables share a common factor structure and to evaluate the suitability of factor analysis. The KMO test measures whether the sample data is suitable for factor analysis, while Bartlett's sphericity test determines whether significant correlations exist among variables. Subsequently, researchers will evaluate the cumulative variance contribution rate of the final factor solution to quantify the overall explanatory power and effectiveness of the extracted common factors in accounting for the variance of the original variables. Through these steps, researchers aim to identify and confirm the underlying dimensional structure.

**Table 3.**

Validity Test Results for the Entrepreneurial Intention of College Students Scale.

		Variant	BFC	RFC	FRP	EC	HUA	IEE	EICS
IFA	BFC	BFC-1				0.874			
		BFC-2				0.907			
		BFC-3				0.861			
	RFC	RFC-1						0.856	
		RFC-2						0.859	
		RFC-3						0.838	
	FRP	FRP-1		0.873					
		FRP-2		0.893					
		FRP-3		0.871					
INFA	EC	EC-1					0.880		
		EC-2					0.905		
		EC-3					0.841		
	HUA	HUA-1	0.910						
		HUA-2	0.921						
		HUA-3	0.902						
	IEE	IEE-1			0.865				
		IEE-2			0.896				
		IEE-3			0.867				
EICS		EICS-1							0.802
		EICS-2							0.834
		EICS-3							0.811
KMO			0.770						
$\chi^2$			4364.016						
df			210						
Significance			0.000						
Eigenvalue (Math.)			4.609	2.826	2.346	2.000	1.918	1.612	1.388
Percentage of Variance (%)			21.948	13.456	11.172	9.525	9.131	7.677	6.610
Percentage of Cumulative Variance (%)			21.948	35.404	46.576	56.100	65.232	72.908	79.518

The results of the KaiKMO test for exploratory factor analysis show a KMO value of 0.770. This value is significantly higher than the generally accepted threshold of 0.7, indicating the presence of a common factor structure among the observed variables. Therefore, the data are suitable for factor analysis.

The Bartlett's sphericity test results show a  $\chi^2$  value of 4364.016 (df=210), with a significance level p far below 0.001. This result strongly rejects the null hypothesis of independence among variables, confirming the suitability of the correlation matrix for factor extraction.

The cumulative variance explained by the common factors reached 79.518%. This high level of explanatory power fully demonstrates that the constructed scale effectively captures the core information of the target construct, with its construct validity fully meeting the ideal standards for academic research.

#### 4.3. Correlation Analysis

To thoroughly examine the independence among constructs, this study first assessed discriminant validity. Specifically, the researchers employed Pearson correlation analysis to investigate the relationships between three primary indicators and six secondary indicators. This analysis aimed to evaluate whether excessive overlap or conceptual confusion existed between different constructs or variables, thereby confirming their sufficient theoretical and empirical distinctiveness.

**Table 4.**  
Correlation Analysis Results Among Variables.

		BFC	RFC	FRP	IFA	EC	HUA	IEE	INFA	EICS
BFC	Pearson Correlation	1	0.189**	0.152**	0.641**	0.017	0.091	0.053	0.080	0.224**
	Sig (two-tailed)		0.000	0.003	0.000	0.735	0.076	0.298	0.116	0.000
	Number of cases	384	384	384	384	384	384	384	384	384
RFC	Pearson Correlation	0.189**	1	0.269**	0.703**	0.063	0.055	0.081	0.097	0.239**
	Sig (two-tailed)	0.000		0.000	0.000	0.217	0.283	0.111	0.058	0.000
	Number of cases	384	384	384	384	384	384	384	384	384
FRP	Pearson Correlation	0.152**	0.269**	1	0.682**	0.160**	0.078	0.052	0.133**	0.240**
	Sig (two-tailed)	0.003	0.000		0.000	0.002	0.128	0.307	0.009	0.000
	Number of cases	384	384	384	384	384	384	384	384	384
IFA	Pearson Correlation	0.641**	0.703**	0.682**	1	0.117*	0.119*	0.097	0.150**	0.360**
	Sig (two-tailed)	0.000	0.000	0.000		0.022	0.020	0.057	0.003	0.000
	Number of cases	384	384	384	384	384	384	384	384	384
EC	Pearson Correlation	0.017	0.063	0.160**	0.117*	1	0.093	0.179**	0.559**	0.210**
	Sig (two-tailed)	0.735	0.217	0.002	0.022		0.068	0.000	0.000	0.000
	Number of cases	384	384	384	384	384	384	384	384	384
HUA	Pearson Correlation	0.091	0.055	0.078	0.119*	0.093	1	0.221**	0.632**	0.191**
	Sig (two-tailed)	0.076	0.283	0.128	0.020	0.068		0.000	0.000	0.000
	Number of cases	384	384	384	384	384	384	384	384	384
IEE	Pearson Correlation	0.053	0.081	0.052	0.097	0.179**	0.221**	1	0.735**	0.305**
	Sig (two-tailed)	0.298	0.111	0.307	0.057	0.000	0.000		0.000	0.000
	Number of cases	384	384	384	384	384	384	384	384	384
INFA	Pearson Correlation	0.080	0.097	0.133**	0.150**	0.559**	0.632**	0.735**	1	0.371**
	Sig (two-tailed)	0.116	0.058	0.009	0.003	0.000	0.000	0.000		0.000
	Number of cases	384	384	384	384	384	384	384	384	384
EICS	Pearson Correlation	0.224**	0.239**	0.240**	0.360**	0.210**	0.191**	0.305**	0.371**	1
	Sig (two-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Number of cases	384	384	384	384	384	384	384	384	384

**Note:** \*\*. At the 0.01 level (two-tailed), the correlation is significant.

\*. At the 0.05 level (two-tailed), the correlation was significant.

The analysis results of this study reveal statistically significant positive correlations among all core latent variables. The specific Pearson correlation coefficients and their significance levels are as follows:

Internet Financial Attributes and Entrepreneurial Intention:  $r = 0.360$ ,  $p < 0.01$

Broaden Financing Channels and Entrepreneurial Intention:  $r = 0.224$ ,  $p < 0.01$

Reducing Financing Costs and Entrepreneurial Intention:  $r = 0.239$ ,  $p < 0.01$

Financial Risk Perception and Entrepreneurial Intention:  $r = 0.240$ ,  $p < 0.01$

Internet Non-financial Attributes and Entrepreneurial Intention:  $r = 0.371$ ,  $p < 0.01$

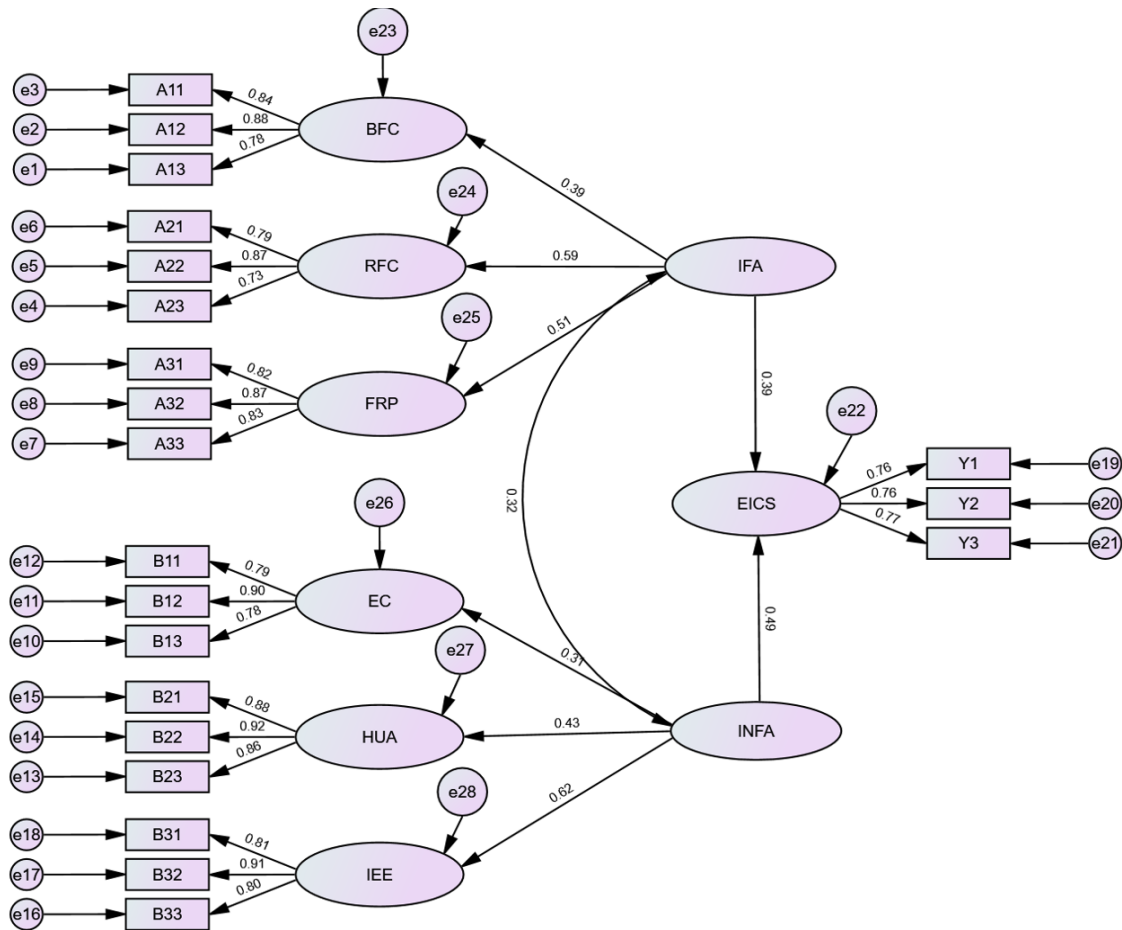
Entrepreneurship Cultivation and Entrepreneurial Intention:  $r = 0.210$ ,  $p < 0.01$

Human Capital Accumulation and Entrepreneurial Intention:  $r = 0.191$ ,  $p < 0.01$

Innovation and Entrepreneurship Education and Entrepreneurial Intention:  $r = 0.305$ ,  $p < 0.01$

#### 4.4. Modelling

To further examine the causal relationships among different latent variables within this study's theoretical model, the researchers employed Structural Equation Modeling (SEM). Specifically, they utilized the Amos statistical software package to construct the corresponding structural model and analyzed the specified structural equations to validate or refute the previously proposed research hypotheses.



**Figure 2.**  
Structural equation model.

After constructing the structural equation model, researchers need to effectively evaluate its robustness. For this purpose, this study employed goodness-of-fit tests.

**Table 5.**  
Structural Equation Model Fit Indices ( $n=384$ ).

Measurement Model	$\chi^2/df$	GFI	AGFI	NFI	CFI	RMSEA
Evaluation Indicators	$<5$	$>0.90$	$>0.90$	$>0.90$	$>0.90$	$<0.08$
Outcome Modelling	1.486	0.939	0.922	0.94	0.979	0.036
Test Results	Fit	Fit	Fit	Fit	Fit	Fit



This study conducted a comprehensive assessment of the model fit for the structural equation model. The  $\chi^2/\text{df}$  ratio was 1.486, precisely within the ideal range of 1 to 3, indicating good parsimony of the model. Regarding absolute fit indices, the GFI was 0.939, and the AGFI was 0.922. Both values significantly exceeded the acceptable threshold of 0.90. For incremental fit indices, the NFI was 0.940, and the CFI was 0.979. These values substantially surpassed the recommended standard of 0.90, with the CFI particularly highlighting the model's exceptional alignment with observed data. Furthermore, the RMSEA was 0.036. This value is substantially below the 0.08 criterion, further confirming the model's excellent fit. In summary, all fit indices consistently and robustly demonstrate a high degree of consistency between the theoretical model constructed in this study and the observed data, indicating excellent construct validity of the model.

## 5. Discussion

The strength of the entrepreneurial intention of college students plays a pivotal role in their personal career development, value formation, and the realization of the national goal of 'mass entrepreneurship and innovation.' This study delves into the factors influencing the entrepreneurial intention of college students, revealing that both the internet financial attributes and internet non-financial attributes exert a significant impact on their entrepreneurial aspirations.

### 5.1. Internet Financial Attributes Significantly Influence the Entrepreneurial Intention of College Students

The findings of this study indicate that Internet Financial Attributes exert a significant positive influence on the Entrepreneurial Intention of college students. This impact manifests primarily through three dimensions: broadening financing channels, reducing financing costs, and enhancing financial risk perception.

Research indicates that the expansion of financing channels brought about by internet finance significantly positively impacts the entrepreneurial intention of college students. Internet financial platforms provide student entrepreneurs with more diverse debt financing avenues, such as peer-to-peer lending and crowdfunding. These channels lower the barriers to traditional bank loans, making them more accessible to students in the early stages of entrepreneurship [83]. Consequently, this enhances their acceptance of debt financing and willingness to pursue it. University student entrepreneurs can launch crowdfunding campaigns through online platforms. Student startup teams not only secure seed funding but also validate the market appeal of their products or services during the initial phase. Furthermore, the information aggregation and dissemination capabilities of internet finance enable student entrepreneurs to more conveniently access and apply for various government subsidies supporting innovation and entrepreneurship. The Chinese government's support policies for student entrepreneurship continue to intensify [84]. These policies, efficiently communicated and streamlined through internet platforms, further ignite students' entrepreneurial enthusiasm. A large number of student entrepreneurs can benefit from government startup subsidies and tax incentives, which can be precisely targeted and delivered through online platforms, effectively guiding student teams to utilize these resources. From a venture capital perspective, the internet finance ecosystem also provides university student startup projects with broader platforms for connecting with angel investors and venture capital institutions. Through online roadshows, project presentations, and similar formats, student entrepreneurs can engage with potential investors at an earlier stage [85]. This not only offers the possibility of securing funding but also allows them to mitigate certain financial risks through professional guidance, thereby increasing the success rate of their ventures. Some internet finance incubators or accelerators specialize in providing mentoring and funding matching services for university student startup projects, helping them effectively connect with market resources.

Secondly, the reduced financing costs stemming from the Internet Financial Attributes have also demonstrated a significant positive impact on the Entrepreneurial Intention of college students. Internet finance, through big data analysis and information sharing, has greatly alleviated the information asymmetry inherent in traditional finance [86]. This enables lenders and borrowers to gain

more transparent insights into each other's information, thereby reducing the risk premium arising from information asymmetry and effectively cutting financing interest costs. Credit assessments based on individual or team online behavioral data enable student entrepreneurs to secure loans at lower interest rates even without traditional collateral. Furthermore, internet finance offers diverse financing tools, including equity crowdfunding, debt crowdfunding, and supply chain finance, allowing student entrepreneurs to flexibly select the most suitable financing method according to their business stage and specific needs [87]. This effectively optimizes corporate capital structures and reduces overall financing costs. Through equity crowdfunding, entrepreneurs can secure development capital without increasing debt while introducing early supporters to diversify equity risks. As financing risks are effectively managed and capital structures continuously optimized, student entrepreneurs gradually build and enhance their credit records within the internet finance ecosystem. A strong credit rating not only facilitates access to more abundant and favorable financing opportunities but also creates a virtuous cycle. Consistent positive performance further solidifies their market credibility, laying a solid foundation for future growth. By demonstrating timely repayments and achieving project milestones through online platforms, most student entrepreneurs can progressively build their “digital credit profiles”, an achievement difficult to attain through traditional financial institutions.

Finally, the Internet Financial Attributes significantly enhance college students' Financial Risk Perception and positively influence their Entrepreneurial Intention. The transparency and immediacy of information within the internet-based financial ecosystem enable student entrepreneurs to swiftly access market fluctuation data, conduct in-depth market research, and analyze underlying causes of these fluctuations [88]. This efficient information acquisition and analytical capability provides crucial decision-making value for formulating flexible business strategies and risk mitigation measures. Numerous startups utilize big data analytics tools to monitor shifts in consumer behavior and industry trend reports, enabling student entrepreneurs to anticipate market risks and promptly adjust product strategies or business models. Internet platforms play a pivotal role in disseminating national policies and industry developments, delivering the latest macroeconomic policies, regulatory requirements, and market trends to student entrepreneurs in a timely and accurate manner. For resource-constrained student startups, timely access to this information is vital for survival and growth, helping them navigate policy risks and seize development opportunities [89]. Many government departments and industry associations publish policy interpretations via official websites and social media platforms. Student entrepreneurs can subscribe to updates or follow specialized media to ensure they do not miss critical information. The openness and transparency of internet finance foster healthy competition within the industry. Student entrepreneurs can leverage online platforms to analyze competitors' products, services, and pricing strategies, enabling them to better position their unique strengths and pursue differentiated development [90]. This transparent competitive environment not only drives continuous innovation and service quality improvements but also elevates the industry's overall value, allowing student entrepreneurs to thrive in a healthier market ecosystem. By utilizing competitive analysis tools and industry forums, student startups can learn from leading companies' success stories and identify market gaps. This enables them to carve out a niche within the fiercely competitive marketplace.

## *5.2. Internet Non-financial Attributes exert a significant influence on the Entrepreneurial Intention of College Students*

Internet non-financial attributes exert a significant positive influence on the entrepreneurial intention of college students. This impact manifests primarily in three dimensions: entrepreneurship cultivation, human capital accumulation, and innovation and entrepreneurship education.

First, Internet non-financial attributes have significantly fostered entrepreneurship cultivation among college students. From a social responsibility perspective, the internet provides a platform for student entrepreneurs to demonstrate social value and address societal challenges [91]. Through entrepreneurial practice, they can create new employment opportunities, thereby contributing positively

to social development and stability. Through social media platforms, student entrepreneurs launch social enterprise projects or public welfare crowdfunding campaigns, enabling them to rapidly gain public attention and resource support, thereby unifying social and economic benefits. From an international perspective, the internet has greatly expanded students' cognitive boundaries, allowing them to conveniently access cutting-edge industry information, innovative models, and market trends worldwide. This global perspective helps student entrepreneurs identify worldwide market opportunities and position their startups for international growth from the outset. Notably, students can study leading global business cases through international online forums and Massive Open Online Courses (MOOCs), and even collaborate remotely with international teams, thereby enhancing their enterprises' global competitiveness [92]. From the perspective of industry development potential, the internet effectively accelerates the growth of student startups by providing information-sharing platforms and low-cost promotional channels, infusing traditional industries with youthful vitality and innovative elements. Currently, most student entrepreneurs leverage specialized online communities to gain expert guidance, seek potential partners, and rapidly bring their innovative concepts to market, thereby spawning new business models and growth opportunities.

Secondly, Internet non-financial attributes exert a positive influence on college students' human capital accumulation, though its impact remains relatively limited. In terms of the digitalization of human resources, the proliferation of emerging technologies such as artificial intelligence, big data, and cloud computing has fueled growing corporate demand for human capital possessing digital skills [93]. The internet provides students with convenient access to this cutting-edge knowledge and skills. Through online programming courses, data analysis platforms, and virtual laboratories, students can better adapt to future corporate requirements for digital talent. Regarding compensation flexibility, new work models and performance evaluation systems supported by internet technology enable startups to offer more flexible compensation incentive mechanisms aligned with contemporary youth values [94]. Numerous startups now adopt project-based pay and equity incentive plans, transcending the limitations of traditional "cold numbers" and better meeting the expectations of student entrepreneurial teams regarding work value and rewards. Regarding networking opportunities, internet platforms possess powerful connectivity functions that effectively help student entrepreneurs expand their professional networks. Through career networking platforms, industry communities, and online events, students can more easily connect with mentors, investors, partners, and potential clients, thereby fulfilling their diverse resource needs during the entrepreneurial journey [95]. Professional networking platforms like LinkedIn now empower students to proactively engage with industry leaders, seeking advice or collaboration opportunities for their startups.

Finally, the Internet's non-financial attributes significantly promote innovation and entrepreneurship education, exerting a pronounced positive influence on the entrepreneurial intention of college students. Regarding entrepreneurial opportunity identification, the Internet provides vast amounts of market data, industry reports, and user feedback, enabling students to analyze market gaps and uncover potential business opportunities more effectively using this information [96]. Students excel at utilizing tools like social media trend analysis and online surveys to discover and validate emerging market needs, thereby developing promising entrepreneurial concepts. Regarding business plan development, the Internet offers rich learning resources and tools, enabling students to draft business plans more professionally and systematically under the guidance of innovation and entrepreneurship education. Most online courses for college students cover business model canvases and market analysis methodologies, while various templates and collaborative document tools (like Google Docs and Microsoft Teams) support team members in jointly revising and refining plans [97]. Regarding entrepreneurial project implementation, internet technology provides low-cost testing environments and efficient iteration mechanisms for incubating and launching student innovation and entrepreneurship projects. Students can leverage open-source software, cloud services, and online prototyping tools to rapidly transform ideas into testable products or services, receiving immediate user feedback for optimization. Some student entrepreneurs develop apps or e-commerce platforms, enabling

them to test and promote their offerings online at minimal cost. This approach allows for swift validation of market viability and rapid iteration based on user feedback.

## 6. Research Contributions, Impact, and Limitations

### 6.1. Research Contributions

The innovation and entrepreneurship capabilities of college students are widely recognized as a crucial driving force for advancing societal innovation and fostering high-quality economic development. During their entrepreneurial journeys, high-caliber startup achievements make pivotal contributions to national economic growth, industrial restructuring and upgrading, and employment market stability [98]. Concurrently, internet finance, as an emerging form of business services, provides crucial funding support for startups and holds significant potential to accelerate their growth. Therefore, this study delves into the influence mechanism of internet finance on college students' entrepreneurial intentions, demonstrating not only significant theoretical value but also broad practical applications.

Although academia has conducted relatively systematic and in-depth discussions on topics such as college students' internet financial literacy and innovation and entrepreneurship intentions, research specifically examining how internet finance impacts their entrepreneurial intentions of college students remains relatively scarce [99]. The findings of this study not only enrich the existing knowledge framework in the field of university student innovation and entrepreneurship but also provide valuable insights for expanding research on the institutional and mechanistic aspects of internet finance's influence on university student innovation and entrepreneurship in China. Specifically, it helps identify and quantify the role of internet finance in stimulating entrepreneurial enthusiasm and lowering barriers to entrepreneurship among university students, thereby providing empirical evidence for subsequent policy formulation.

This study provides important references for government departments to establish and improve support systems for college students' innovation and entrepreneurship, as well as to optimize relevant policies. For instance, based on the findings, governments can incorporate more internet finance elements into policy design, such as encouraging fintech platforms to offer specialized loans, equity crowdfunding, or venture capital matching services for student startup projects [100]. Additionally, the results can guide education authorities in integrating internet finance knowledge into Innovation and Entrepreneurship Education curricula, thereby enhancing students' financial literacy and risk identification capabilities.

Beyond this, the study contributes to refining and optimizing internet finance service models tailored for Chinese university students. It offers clear normative guidance for the development path of internet finance services, aiming to address operational shortcomings, resolve challenges, and overcome developmental barriers. By analyzing specific issues university students encounter when utilizing internet finance services, this research can drive relevant platforms to improve user experience and enhance risk control capabilities [101]. Simultaneously, this research offers concrete strategic insights for relevant authorities to foster healthier, more sustainable financing practices within this emerging financial sector. This not only helps Chinese banking institutions better align with the diverse needs of society, markets, and the public to achieve inclusive finance goals, but also further promotes the deep integration of financial innovation with the real economy, providing stronger financial support for the nation's economic transformation and upgrading.

### 6.2. Research Impact

As the number of college graduates continues to rise annually, the post-90s and post-00s generations are increasingly becoming the mainstay of the labor market [102]. This generation possesses distinct characteristics of their era, with a widespread emphasis on self-actualization and the importance of personal values in life, study, and work. They place high importance on clear career

awareness and the realization of their value in the workplace [103]. However, upon entering society, these graduates first face the core challenge of balancing survival and development.

The current job market exhibits structural shifts: demand for technology-driven innovation roles continues to grow, while traditional administrative and clerical positions have reached saturation. Particularly after the 2020 COVID-19 outbreak, severe global economic volatility plunged many new graduates into unprecedented employment challenges. On one hand, some enterprises reduced hiring scales due to poor business conditions, leading to a decrease in job supply. On the other hand, students originally planning to work overseas or abroad were stranded domestically due to the pandemic, further intensifying competition in the domestic job market. In such a severe and complex employment environment, innovation and entrepreneurship have become crucial pathways for individuals to achieve self-fulfillment, demonstrate independence, and tackle employment challenges.

Accelerating the development of internet finance is seen as an effective strategy to eliminate obstacles hindering university students' innovation and entrepreneurship. This not only significantly boosts their enthusiasm for such endeavors, enhances their creativity, and increases the likelihood of entrepreneurial success, but also helps chart more suitable career paths for them, thereby better realizing their innovation and entrepreneurship goals and personal value. For instance, through low-threshold financing, entrepreneurial guidance, and risk management tools provided by internet finance platforms, students can take their first steps into entrepreneurship with greater confidence. Simultaneously, this development stimulates innovation and entrepreneurship across society, promotes deep integration between industry, academia, and research, and cultivates more leading enterprises focused on niche markets. This effectively drives economic growth and social development.

Furthermore, conducting detailed and in-depth research on the impact of internet finance on university students' innovation and entrepreneurship intentions holds significant strategic importance for the rational allocation of social resources, alleviating employment pressures among university students, accelerating the transition from old to new growth drivers, and propelling society toward an innovation-driven development model. By precisely identifying how internet finance supports college students at different stages of entrepreneurship, this research can guide social resources toward more effective allocation to promising innovative projects. Ultimately, this will not only significantly enhance China's international competitiveness and comprehensive national strength, enabling it to better fulfill its responsibilities as a major global player, but also contribute to actively building a community with a shared future for mankind, offering Chinese wisdom and strength to global sustainable development.

### 6.3. Research Limitations

Although this study has made progress and generated impact at both theoretical and practical levels, its limitations cannot be overlooked, and several aspects warrant further refinement in future research. First, there is room for improvement in the representativeness of the sample selection. Survey data was primarily obtained through collaboration with a specific internet startup platform. This convenience sampling method may result in sample clustering in terms of geographic distribution and socio-environmental characteristics, thereby limiting the external validity of the findings. Such clustering could lead to insufficient coverage of college students from diverse geographic regions and institutional backgrounds [104]. For instance, the sample may be disproportionately concentrated among students from key universities in economically developed areas, potentially overlooking the entrepreneurial intention characteristics of students in less developed regions or vocational institutions. Second, the sample exhibits a degree of homogeneity in demographic characteristics. It is limited to university students, predominantly at the undergraduate level, indicating potential sample bias due to insufficient coverage of students with diverse educational backgrounds and academic levels. For instance, students at different academic levels may exhibit significant differences in entrepreneurial motivation, resource acquisition capabilities, and risk tolerance. Consequently, the findings of this study may not be fully generalizable to graduate students or those in vocational programs.

Given these sample limitations, future research may consider employing more scientifically rigorous sampling methods during sample selection, such as stratified sampling or multi-stage sampling. These approaches can broaden sample coverage and enhance structural diversity, thereby significantly improving the representativeness and generalizability of research outcomes. Additionally, researchers may consider incorporating samples of college students with diverse academic backgrounds, varying academic years, or even different stages of entrepreneurship to gain more comprehensive insights. The theoretical analytical framework of this study also has room for expansion. Future research could explore incorporating other potential macro- or micro-structural factors beyond the current model. At the macro level, these could include regional economic development levels, the intensity of government support for entrepreneurship policies, industry development trends, and the higher education system's mechanisms for guiding innovation and entrepreneurship. Micro-level factors could encompass individual psychological traits (e.g., risk preference, innovation capacity, resilience), family background, social capital networks, and the quality of innovation and entrepreneurship education received. Integrating these factors would help construct a more persuasive and explanatory analytical framework, thereby comprehensively enhancing the accuracy, reliability, and practical guidance of research findings. This would provide policymakers and educational institutions with more refined decision-making support.

### Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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