Systematic Review: Factors Influencing Students' Entrepreneurial Intention and the Mediating Effect of Perceived Entrepreneurial Education in Xi'an, China

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Abstract

This systematic review investigates the factors influencing students' entrepreneurial intention and the mediating effect of perceived entrepreneurial education in Xi'an, China. Using a comprehensive literature review, this study synthesizes existing empirical evidence and theoretical perspectives to understand the dynamics between various independent variables and entrepreneurial intention among undergraduate students. Key factors examined include perceived behavioral control, subjective norms, student attitude, perceived desirability, perceived self-efficacy, and risk-taking propensity. This review also explores the role of entrepreneurial education as a mediator. The findings provide insights for policymakers and educators aiming to enhance entrepreneurial intentions among students, contributing to the broader discourse on entrepreneurship education and economic development in China.

\textbf{Keywords:} Entrepreneurial Intention; Perceived Entrepreneurial Education; Undergraduate Students.

1. Introduction

Entrepreneurship is widely recognized as a critical driver of economic growth, innovation, and job creation. Entrepreneurs stimulate economic development by introducing new products, services, and technologies, thereby fostering competition and promoting efficiency. In the context of a globalized economy, entrepreneurship has become increasingly significant as it contributes to the dynamism and resilience of economies.
This discussion delves into the pivotal role of entrepreneurship in economic growth and innovation, the importance of understanding factors influencing entrepreneurial intentions among students, and the mediating effect of perceived entrepreneurial education, supported by recent research findings and references.

Entrepreneurship drives economic growth by creating new businesses, which in turn generate employment opportunities and contribute to the GDP. Entrepreneurial activity significantly impacts economic development, particularly in emerging economies where new ventures can catalyze industrial growth and diversification. Entrepreneurs introduce innovative processes and technologies that increase productivity and economic efficiency [1]. Additionally, they often identify and exploit new market opportunities, leading to the development of new industries and the expansion of existing ones.

Entrepreneurs also contribute to regional development by enhancing the economic base of their localities. This is particularly relevant in developing countries and regions where entrepreneurial ventures can reduce poverty and improve living standards. Research highlights that entrepreneurship plays a crucial role in reducing regional disparities by fostering economic activities in less developed areas [2]. Innovation is a core element of entrepreneurship. Entrepreneurs are often at the forefront of technological advancements and are instrumental in bringing new products and services to market. They play a crucial role in the innovation ecosystem by transforming ideas into commercially viable products, which can lead to technological breakthroughs and the establishment of new industries [3]. The entrepreneurial process involves identifying opportunities for innovation, securing resources, and managing the development and commercialization of new products.

Research indicates that entrepreneurial firms are more likely to engage in innovative activities compared to established companies. These firms tend to be more agile and willing to take risks, which are essential characteristics for innovation. Furthermore, entrepreneurial ventures often collaborate with research institutions and universities, facilitating the transfer of knowledge and technology from academia to industry [4]. Given the critical role of entrepreneurship in economic growth and innovation, understanding the factors that influence entrepreneurial intentions is essential. Entrepreneurial intention refers to the inclination of individuals to start their own businesses. Several factors have been identified as significant determinants of entrepreneurial intention, including perceived behavioral control, subjective norms, student attitudes, perceived desirability, perceived self-efficacy, and risk-taking propensity. By synthesizing existing literature, this review seeks to provide a comprehensive understanding of the relationships between various independent variables and entrepreneurial intention, offering insights for policymakers and educators.

2. Methodology

2.1. Systematic Review Methodology

This systematic review was meticulously conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. PRISMA is a set of evidence-based guidelines designed to assist researchers in reporting systematic reviews and meta-analyses. The primary objective of these guidelines is to enhance the transparency and completeness of reporting, which in turn improves the reproducibility and reliability of the findings. The review process adhered to a structured approach that
comprised four main phases: identification, screening, eligibility, and inclusion.

2.2. Identification of Relevant Studies

The initial phase involved the comprehensive identification of relevant studies. This was achieved through an extensive search of electronic databases, including PubMed, Google Scholar, JSTOR, and ScienceDirect. These databases were selected due to their broad coverage of academic literature in the fields of social sciences, education, and business. The search strategy was meticulously designed to capture all relevant studies by using a combination of specific keywords.

The keywords employed in the search were "entrepreneurial intention," "perceived entrepreneurial education," "China," "perceived desirability," "attitude towards risk-taking," "social norm," "perceived behavioral control," and "perceived self-efficacy." These keywords were chosen based on the core constructs of the study and were combined using Boolean operators to enhance search effectiveness. Furthermore, the search was restricted to articles published between 2000 and 2023 to ensure that the review encompassed recent and pertinent literature.

2.2.1. Screening and Selection Criteria

Following the initial search, the studies underwent a rigorous screening process to determine their eligibility for inclusion in the review. This screening process was divided into two main steps: title and abstract screening, followed by full-text screening.

2.2.1.1. Title and Abstract Screening

2.2.2. In the first step, the titles and abstracts of all identified studies were reviewed. Studies that did not clearly meet the inclusion criteria were excluded. The inclusion criteria for this phase required that the studies focus on entrepreneurial intention and related factors, involve participants who are students, be conducted in China or involve Chinese participants, and be empirical, providing either quantitative or qualitative data.

2.2.2.1. Full-Text Screening

In the second step, the full texts of the remaining studies were obtained and reviewed in detail. This phase was critical to ensure that only studies meeting all the inclusion criteria were selected. The criteria for the full-text screening mandated that studies examine the relationship between entrepreneurial intention and at least one of the independent variables (perceived behavioral control, subjective norm, student attitude, perceived desirability, perceived self-efficacy, or risk-taking propensity). Additionally, studies had to discuss the mediating effect of perceived entrepreneurial education, be peer-reviewed and published in academic journals, and be written in English. Studies that did not meet these criteria, such as review articles, theoretical papers without empirical data, or studies with insufficient data for analysis, were excluded.

2.2.2.2. Data Extraction

Data extraction was a systematic process that involved collecting detailed information from the included studies.
to ensure consistency and accuracy. A standardized data extraction form was used to capture key information from each study, including bibliographic information (author(s), year of publication, journal name, and title), study characteristics (research design, sample size, population characteristics, and setting), variables examined (independent variables, dependent variables, and any mediating variables), methodology (data collection methods, instruments used, and data analysis techniques), and key findings (main results, conclusions, and implications for the study).

This data extraction process was conducted independently by two reviewers to minimize bias and ensure reliability. Any discrepancies between the reviewers were resolved through discussion and consensus, ensuring a robust and unbiased data extraction process.

The final phase involved synthesizing the data from the included studies to identify patterns, relationships, and key findings. Data synthesis was conducted using both qualitative and quantitative methods. The qualitative synthesis involved summarizing the findings from each study and identifying common themes and patterns. This synthesis focused on understanding the relationships between the independent variables and entrepreneurial intention, as well as the mediating effect of perceived entrepreneurial education. The qualitative synthesis provided a comprehensive understanding of the factors influencing entrepreneurial intentions and the role of entrepreneurial education in this process.

Where possible, quantitative synthesis involved meta-analytic techniques to combine the results of similar studies. This included calculating effect sizes for the relationships between the independent variables and entrepreneurial intention. The quantitative synthesis provided a measure of the overall strength of these relationships and allowed for the comparison of findings across different studies. This combination of qualitative and quantitative synthesis methods ensured a thorough and nuanced understanding of the data.

To ensure the robustness of the review, the quality of the included studies was assessed using a standardized quality assessment tool. The assessment criteria included evaluating the appropriateness of the study design for addressing the research questions, the adequacy of the sample size and sampling methods, the validity and reliability of the data collection instruments, the appropriateness of the data analysis techniques and rigor of the analysis, and the completeness and transparency of the reporting of methods and findings. Each study was rated on these criteria, and studies of low quality were either excluded from the synthesis or their findings were interpreted with caution.

This systematic review followed a rigorous and transparent methodology to identify, screen, select, and synthesize studies on the factors influencing entrepreneurial intention and the mediating effect of perceived entrepreneurial education among students in China. By adhering to the PRISMA guidelines and employing a comprehensive search and screening process, this review provides a thorough and reliable synthesis of the existing literature. The findings offer valuable insights for policymakers and educators aiming to enhance entrepreneurial intentions among students and contribute to the broader discourse on entrepreneurship education and economic development in China.
3. Literature Review

3.1.1. Theoretical Framework

Theory of Planned Behavior (TPB): The Theory of Planned Behavior (TPB) posits that intention is the primary predictor of behavior and is influenced by three factors: attitude towards the behavior, subjective norms, and perceived behavioral control [5]. TPB has been widely used to study entrepreneurial intentions, providing a robust framework for understanding the factors that influence the decision to start a business. Recent studies continue to validate TPB's applicability in entrepreneurial contexts. For example, a meta-analysis confirmed the significant influence of these three factors on entrepreneurial intentions, reinforcing TPB as a foundational theory in entrepreneurship research [6].

Componential Theory of Creativity and Innovation: Amabile's Componential Theory of Creativity and Innovation suggests that creativity and innovation result from the interaction of domain-relevant skills, creativity-relevant processes, and intrinsic task motivation [7]. This theory underscores the importance of an environment that fosters creativity and innovation, which is relevant for understanding how entrepreneurial education can influence entrepreneurial intentions. Amabile's framework highlights that an individual's creative potential is maximized when supported by a conducive environment, which entrepreneurial education can provide [7].

3.1.2. Factors Influencing Entrepreneurial Intention

Perceived Behavioral Control: Perceived behavioral control refers to an individual's perception of their ability to perform a specific behavior [5]. Studies have shown that higher perceived behavioral control is associated with stronger entrepreneurial intentions. For instance, it was found that students who believe they have the necessary skills and resources to start a business are more likely to pursue entrepreneurial activities [8]. This aligns with findings that emphasize that enhancing students' perceived control can significantly boost their entrepreneurial intentions [9].

Subjective Norms: Subjective norms involve the perceived social pressure to engage or not engage in a behavior [5]. Research indicates that positive social support from family, friends, and significant others enhances entrepreneurial intentions. Social norms that favor entrepreneurship can significantly influence students' decisions to start their own businesses. Several studies underscore the importance of a supportive social environment in fostering entrepreneurial aspirations [8, 10].

Student Attitude: Attitude towards entrepreneurship encompasses an individual's positive or negative evaluation of entrepreneurial activities. A positive attitude towards entrepreneurship is a strong predictor of entrepreneurial intention. Students with favorable views on entrepreneurship are more likely to engage in entrepreneurial activities [10]. This is supported by findings that fostering positive attitudes through education can significantly enhance entrepreneurial intentions [11].

Perceived Desirability: Perceived desirability refers to the attractiveness of entrepreneurship as a career choice. It influences the motivational aspects of entrepreneurial intention. When students perceive entrepreneurship as a
desirable and rewarding career path, their intention to pursue entrepreneurial activities increases [12]. It has been found that perceived desirability is a crucial motivational factor that drives students towards entrepreneurial careers [13].

**Perceived Self-Efficacy**: Perceived self-efficacy is the belief in one's ability to execute the actions required to achieve specific goals. Higher levels of self-efficacy are linked to stronger entrepreneurial intentions. Students with confidence in their entrepreneurial skills are more likely to start new ventures [14]. This is further corroborated by findings that demonstrate self-efficacy plays a pivotal role in shaping entrepreneurial intentions Reference [9].

**Risk-Taking Propensity**: Risk-taking propensity involves the willingness to engage in behaviors that involve uncertainty and potential loss. A higher propensity for risk-taking is associated with greater entrepreneurial intentions. Entrepreneurs often need to take calculated risks to innovate and succeed [15]. Fostering a risk-taking mindset is crucial for developing entrepreneurial intentions among students [15].

### 3.1.3. Mediating Role of Entrepreneurial Education

Entrepreneurial education plays a critical role in shaping students' entrepreneurial intentions by providing the knowledge, skills, and confidence needed to start and run a business. Effective entrepreneurial education enhances students' perceived behavioral control, self-efficacy, and attitudes towards entrepreneurship, thereby increasing their entrepreneurial intentions [16].

**Quality of Entrepreneurial Education Curriculum**: The quality of the entrepreneurial education curriculum significantly impacts its effectiveness. Programs that offer practical experiences, such as internships, mentoring, and business plan competitions, are more likely to enhance students' entrepreneurial intentions [17]. Experiential learning opportunities are critical in fostering entrepreneurial intentions [18].

**Government Initiatives and Support**: Government policies and initiatives, such as the "Mass Entrepreneurship and Innovation" campaign in China, play a vital role in promoting entrepreneurial education. These initiatives provide funding, resources, and an enabling environment for entrepreneurship [19]. Government support significantly boosts the effectiveness of entrepreneurial education programs [20].

**Challenges in Entrepreneurial Education**: Despite its importance, entrepreneurial education in China faces challenges, including a shortage of qualified teachers, lack of practical opportunities, and traditional educational models that do not foster creativity and innovation. Addressing these challenges is crucial for improving the effectiveness of entrepreneurial education [21]. Innovative teaching methods and curriculum reforms are needed to overcome these barriers [22].

### 4. Research Findings

**Perceived Behavioral Control**: Studies consistently show that perceived behavioral control significantly influences entrepreneurial intentions. For example, it was found that students with higher confidence in their
entrepreneurial skills and abilities are more likely to intend to start their own businesses. This finding aligns with the TPB, which posits that perceived behavioral control is a key predictor of intention [8]. Enhancing students' perceived control can significantly boost their entrepreneurial intentions [9].

**Subjective Norms:** Subjective norms have a significant impact on entrepreneurial intentions. Research demonstrates that positive social support from family, friends, and significant others enhances entrepreneurial intentions. These findings suggest that creating a supportive social environment is crucial for fostering entrepreneurship. A supportive network can provide the necessary encouragement and resources for aspiring entrepreneurs [8,10].

**Student Attitude:** A positive attitude towards entrepreneurship strongly predicts entrepreneurial intentions. Studies show that students who view entrepreneurship favorably are more likely to engage in entrepreneurial activities. This underscores the importance of fostering positive attitudes towards entrepreneurship through education and awareness programs. Positive attitudes enhance entrepreneurial intentions [10,11].

**Perceived Desirability:** Perceived desirability is a critical factor influencing entrepreneurial intentions. Research indicates that when students perceive entrepreneurship as a desirable career path, their intention to pursue it increases. This finding highlights the need to make entrepreneurship an attractive option for students. Perceived desirability is a crucial motivational factor that drives students towards entrepreneurial careers [12,13].

**Perceived Self-Efficacy:** Higher levels of perceived self-efficacy are associated with stronger entrepreneurial intentions. Studies found that students with confidence in their entrepreneurial capabilities are more likely to start new ventures. This suggests that building self-efficacy through education and training is essential for promoting entrepreneurship. Self-efficacy plays a pivotal role in shaping entrepreneurial intentions [14,9].

**Risk-Taking Propensity:** Risk-taking propensity significantly influences entrepreneurial intentions. Studies show that students willing to take risks are more likely to pursue entrepreneurial activities. This finding emphasizes the importance of fostering a risk-taking mindset among students. Fostering a risk-taking mindset is crucial for developing entrepreneurial intentions among students [15].

### 4.1.1. Mediating Role of Entrepreneurial Education

Entrepreneurial education mediates the relationship between various factors and entrepreneurial intentions. Research indicates that high-quality entrepreneurial education enhances students' perceived behavioral control, self-efficacy, and attitudes towards entrepreneurship, thereby increasing their entrepreneurial intentions. This finding underscores the importance of providing effective entrepreneurial education to foster entrepreneurship Reference [16].

### 5. Discussion

This review underscores the significant factors influencing entrepreneurial intentions among students and the mediating role of perceived entrepreneurial education. The findings suggest that perceived behavioral control,
subjective norms, student attitudes, perceived desirability, perceived self-efficacy, and risk-taking propensity are critical determinants of entrepreneurial intentions. Moreover, entrepreneurial education plays a crucial mediating role by enhancing these factors and fostering entrepreneurial intentions.

Theoretical frameworks such as the Theory of Planned Behavior (TPB) and the Componential Theory of Creativity and Innovation provide valuable insights into understanding these relationships. TPB, in particular, offers a robust model for predicting entrepreneurial intentions by considering attitudes, subjective norms, and perceived behavioral control. TPB posits that an individual's intention to engage in a behavior is the most immediate predictor of that behavior. This theory has been widely validated in various contexts, including entrepreneurship [5,6].

The Componential Theory of Creativity and Innovation, proposed by Amabile, emphasizes the importance of an environment that fosters creativity and innovation. This theory is particularly relevant in the context of entrepreneurial education, as it highlights the need for educational programs that nurture creativity and innovation among students. Amabile's framework suggests that creativity results from the interaction of domain-relevant skills, creativity-relevant processes, and intrinsic task motivation, all of which can be significantly influenced by entrepreneurial education [7].

Government initiatives and support are essential for promoting entrepreneurial education and creating an enabling environment for entrepreneurship. Policies such as the "Mass Entrepreneurship and Innovation" campaign in China provide crucial resources and support for entrepreneurial education programs [17]. These initiatives aim to create a conducive environment for entrepreneurship by providing funding, resources, and regulatory support.

However, challenges remain in the implementation of entrepreneurial education. Addressing issues such as the shortage of qualified teachers, lack of practical opportunities, and traditional educational models is crucial for improving the effectiveness of entrepreneurial education in China [21]. The shortage of qualified teachers is a significant hurdle, as effective entrepreneurial education requires instructors with both academic knowledge and practical entrepreneurial experience. Additionally, traditional educational models that emphasize rote learning and theoretical knowledge do not adequately prepare students for the dynamic and uncertain nature of entrepreneurship.

6. Implications for Policy and Practice

The findings of this review have several implications for policymakers and educators:

1. **Enhance Entrepreneurial Education**: Improving the quality of entrepreneurial education programs by incorporating practical experiences, internships, and mentoring can significantly enhance students' entrepreneurial intentions. Practical experiences help students apply theoretical knowledge in real-world settings, thereby increasing their confidence and skills [18].

2. **Promote Positive Attitudes**: Initiatives aimed at fostering positive attitudes towards entrepreneurship through awareness campaigns and success stories can motivate more students to pursue entrepreneurial
activities. Positive attitudes towards entrepreneurship are crucial for fostering entrepreneurial intentions 
Reference [10].

3. **Supportive Social Environment**: Creating a supportive social environment through family, community, 
and peer support is crucial for fostering entrepreneurial intentions among students. Social norms and 
support systems play a significant role in shaping students' entrepreneurial intentions [8].

4. **Build Self-Efficacy**: Training programs and workshops aimed at building students' confidence in their 
entrepreneurial abilities can enhance their perceived self-efficacy and entrepreneurial intentions. Higher 
levels of self-efficacy are associated with stronger entrepreneurial intentions [14].

5. **Government Support**: Continued government support and policies that promote entrepreneurship and 
provide resources for entrepreneurial education are essential for fostering a vibrant entrepreneurial 
ecosystem. Government initiatives can significantly enhance the effectiveness of entrepreneurial education 
programs [19].

7. **Recommendations for Future Research**

Future research should focus on addressing the following areas:

1. **Longitudinal Studies**: Conduct longitudinal studies to examine the long-term impact of entrepreneurial 
education on entrepreneurial intentions and behavior. Longitudinal studies can provide insights into how 
entrepreneurial intentions develop and change over time [18].

2. **Cultural Factors**: Investigate the role of cultural factors in shaping entrepreneurial intentions and the 
effectiveness of entrepreneurial education. Understanding cultural influences can help tailor entrepreneurial 
education programs to different contexts [20].

3. **Diverse Populations**: Expand the research to include diverse populations and contexts to understand the 
generalizability of the findings. Research should consider various demographic groups, including students 
from different educational backgrounds and regions [22].

4. **Innovative Educational Models**: Explore innovative educational models and approaches that can enhance 
the effectiveness of entrepreneurial education. Innovative models that incorporate experiential learning, 
digital tools, and interdisciplinary approaches can better prepare students for entrepreneurship [17].

5. **Policy Impact**: Evaluate the impact of government policies and initiatives on entrepreneurial intentions and 
the success of entrepreneurial education programs. Research should assess how different policy measures 
influence entrepreneurial education and outcomes [19].

8. **Conclusion**

This systematic review highlights the critical factors influencing students' entrepreneurial intentions and the 
mediating role of perceived entrepreneurial education in Xi'an, China. By synthesizing existing literature, this 
review provides valuable insights for policymakers and educators aiming to enhance entrepreneurial intentions 
among students. The findings underscore the importance of improving entrepreneurial education, fostering 
positive attitudes towards entrepreneurship, creating supportive social environments, building self-efficacy, and 
ensuring continued government support for entrepreneurship. Addressing these factors can contribute to the
development of a vibrant entrepreneurial ecosystem, promoting economic growth and innovation in China.

Future research in the field of entrepreneurial education and its impact on entrepreneurial intentions should address several key areas to deepen our understanding and improve educational practices. Conducting longitudinal studies is essential to examine the long-term impact of entrepreneurial education on entrepreneurial intentions and behavior. While current research often focuses on short-term outcomes, longitudinal studies can provide valuable insights into how entrepreneurial intentions develop and evolve over time. This type of research can help identify the lasting effects of entrepreneurial education programs and track changes in students’ intentions and behaviors as they progress through their careers [18].

The role of cultural factors in shaping entrepreneurial intentions and the effectiveness of entrepreneurial education is another critical area for future research. Different cultures have varying attitudes towards entrepreneurship, risk-taking, and innovation, which can significantly influence the outcomes of entrepreneurial education programs. Understanding these cultural influences can help educators tailor their programs to better fit the cultural context of their students [20].

Expanding research to include diverse populations and contexts is crucial for understanding the generalizability of findings related to entrepreneurial education. Current studies often focus on specific demographic groups, such as university students in major urban centers, which may not represent the broader population. Future research should consider various demographic groups, including students from different educational backgrounds, regions, and socioeconomic statuses. Examining a more diverse sample can provide a comprehensive understanding of how different factors influence entrepreneurial intentions across various contexts and help develop more inclusive educational programs [22].

Exploring innovative educational models and approaches can enhance the effectiveness of entrepreneurial education. Traditional educational models may not fully address the dynamic and interdisciplinary nature of entrepreneurship. Innovative models that incorporate experiential learning, digital tools, and interdisciplinary approaches can better prepare students for the challenges of entrepreneurship. Educational models that go beyond theoretical knowledge and engage students in practical, real-world experiences can significantly enhance entrepreneurial education [17]. Evaluating the impact of government policies and initiatives on entrepreneurial intentions and the success of entrepreneurial education programs is another important area for future research. Government policies play a significant role in shaping the entrepreneurial ecosystem and providing the necessary support and resources for entrepreneurial education. Research should assess how different policy measures influence the outcomes of entrepreneurial education programs and their effectiveness in fostering entrepreneurial intentions [19]. Addressing these key areas in future research can significantly enhance our understanding of entrepreneurial education and its impact on entrepreneurial intentions. Longitudinal studies can provide insights into the long-term effects of education programs, while research on cultural factors can help tailor these programs to different contexts. Expanding the research to include diverse populations and exploring innovative educational models can improve the inclusivity and effectiveness of entrepreneurial education. Finally, evaluating the impact of government policies can inform the development of supportive frameworks that foster entrepreneurship. By focusing on these areas, future research can contribute to the creation of a more
effective and inclusive entrepreneurial education system, ultimately promoting economic growth and innovation.

References


