

A Literature Review on the Development of Entrepreneurial Management Skills among Adolescent Youth

Ravi Kiran Sethi

Research Scholar, Luitbem university

Dr Deepchand Dhankhar

Resesrch guide, Luitbem university

Abstract

This literature review explores the development of entrepreneurial management skills among adolescent youth, focusing on theoretical frameworks, empirical findings, and practical interventions. Drawing on studies from diverse global and Indian contexts, the review synthesizes research on key competencies, educational strategies, and ecosystem support influencing adolescent entrepreneurship. Core findings reveal that early exposure to structured entrepreneurial education, supported by experiential learning, significantly shapes career intentions and entrepreneurial behavior. Personality traits, gender, and socio-economic factors moderate these outcomes, while institutional and policy frameworks enhance their effectiveness. Notable research gaps include a lack of longitudinal studies, standardized assessments, and inclusive models for underrepresented groups. The review emphasizes the need for integrated, experiential, and context-aware pedagogies, and proposes stronger stakeholder collaboration for sustainable entrepreneurial development. It concludes that cultivating entrepreneurial skills in adolescence is a crucial strategy for economic empowerment and future-ready citizenship.

Keywords:

Entrepreneurial Management Skills, Adolescent Youth, Entrepreneurship Education, Experiential Learning, Entrepreneurial Mindset, Youth Empowerment, Socio-Economic Development.

Keywords

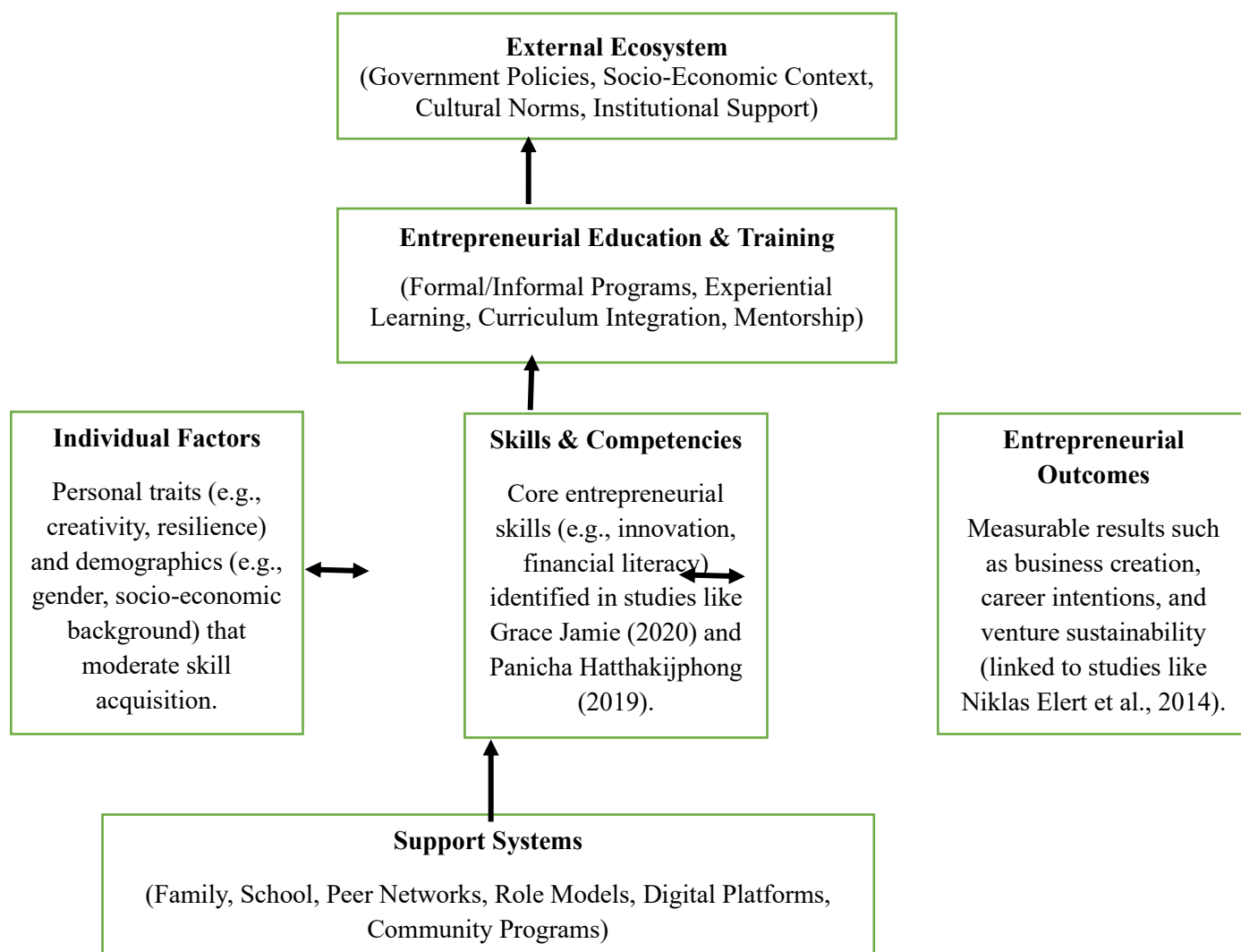
Introduction

To ensure sustainable growth, self-employment, and socio-economic progress in the global economy, youth must learn entrepreneurial skills. The focus of entrepreneurial management is on developing creative, managerial, and leadership skills to turn unique ideas into viable businesses. This is especially important during adolescence, when attitudes, skills, and goals are formed.

This literature review critically examines existing research on the development of entrepreneurial youth management skills among adolescents, focusing on theoretical perspectives, practical frameworks, and empirical findings. This section reviews a wide range of scholarly contributions to identify knowledge gaps, highlight effective skill development models, and prepare for the current study.

The literature review is themed to improve cohesion and depth. It begins with entrepreneurial and adolescent theory basics. We then address the socio-economic benefits of early entrepreneurial exposure and youth entrepreneurial skills. The following sections discuss educational, institutional, and policy strategies to foster entrepreneurial aptitude. Synthesizing major findings and identifying research gaps closes the review.

Conceptual Framework



Methodology

The aim of this study was to review the concept of entrepreneurial development and its several antecedents. Most of research articles on entrepreneurship were accessed from EBSCO, Science Direct, Google Scholar, Proquest etc. Some research articles, books were accessed from different Libraries. The used keywords have been presented in Table 1.

Table 1: Key words used to search for potential research articles

Primary Key Word used for search for potential research articles	Keywords used with conjunction with Primary Key
Entrepreneurship Education	Entrepreneurs' working style, culture, behaviour, style of business, SMEs, policies, development, and temperaments, Indian entrepreneurs
Adolescent Development	Entrepreneurial Management Skills, entrepreneurial education, Socio-Cognitive Factors, Adolescent Demographics

In furtherance of building up platform for research work in the area of entrepreneurial management skills among adolescent youth and to define research problems and its underpinning whichever required effort was made to summarize the relevant content from the selected papers to make a meaningful review. The time frame for the previous 15 years

i.e. year 2010 to till the date of submitting a review of the literature was considered. Few articles from cross references were also examined for the literature review in Indian context.

Review of Literature

Concept of Entrepreneurship and Entrepreneurial Management Adolescent Youth

The concept of entrepreneurship and entrepreneurial management among adolescent youth is increasingly gaining prominence in both theoretical discourse and practical implementation. As highlighted by **Ms. Elena Rosemaro (2022)**, entrepreneurship involves translating innovative ideas into viable business ventures through a structured process of risk analysis, resource mobilization, and strategic implementation. Entrepreneurial management supports this process by equipping individuals with the ability to analyze markets, formulate business strategies, and enhance existing operations for profitability. Rosemaro emphasizes the importance of dedicated organizational support systems that enable aspiring entrepreneurs to realize their ideas and manage risks effectively. Similarly, **Edward J. Malecki (2017)** deepens the discussion by introducing the notion of entrepreneurial ecosystems—localized environments comprising institutions, networks, and cultural elements that collectively nurture entrepreneurship. Malecki's work underlines the critical role of universities as hubs and the evolutionary nature of ecosystems, calling for future research on methodologies to assess their impact.

Further, **David J. Teece (2015)** brings attention to the often-overlooked role of entrepreneurial managers in economic theory, arguing that they are central to sensing opportunities, creating business models, and guiding firms through dynamic transformations. His view broadens the understanding of organizational capabilities by positioning entrepreneurial management as a key element of long-term competitive advantage. This aligns with **Yun Hee Cho and Joo-Heon Lee (2018)**, who, in the context of Korea's economic transition, explore the influence of entrepreneurial orientation on business performance. Their study reveals that while innovative proactiveness significantly boosts nonfinancial outcomes, risk-taking and entrepreneurship education had limited impact, particularly among experienced entrepreneurs. This indicates that entrepreneurial skill development is more effective when nurtured early, especially during adolescence. Finally, **Jaroslawn Korpysa (2020)** investigates entrepreneurial management within SMEs, identifying that strategic orientation, knowledge utilization, and innovation are integral to seizing market opportunities. These studies collectively suggest that fostering entrepreneurial skills among youth requires a multi-dimensional approach involving education, strategic management, and supportive ecosystems, all of which contribute to the development of capable, innovative entrepreneurs.

Author(s) & Year	Focus Area	Methodology	Key Findings / Contributions
Ms. Elena Rosemaro (2022)	Concept of entrepreneurship and entrepreneurial management	Conceptual/Theoretical Review	Emphasizes entrepreneurship as turning innovative ideas into reality through risk analysis and dedicated teams. Entrepreneurial management involves market analysis and innovation for profit enhancement.
Edward J. Malecki (2017)	Entrepreneurial ecosystems	Literature Review & Bibliometric Analysis	Highlights localized entrepreneurial ecosystems supported by networks, institutions, and universities. Introduces future research agenda with focus on ecosystem evolution and methodological improvements.
David J. Teece (2015)	Entrepreneurial roles in management and economic theory	Theoretical and Conceptual Framework Analysis	Argues that managers fulfill entrepreneurial roles—sensing opportunities, developing models, guiding transformations. Promotes the inclusion of entrepreneurial management in economic theory and industrial policy frameworks.
Yun Hee Cho & Joo-Heon	Entrepreneurial orientation and its impact on	Empirical Study (Survey of 200 nascent/early-stage	Innovative proactiveness impacts nonfinancial performance. Risk-taking and entrepreneurship education have limited effect. Suggests entrepreneurship

Lee (2018)	business performance	entrepreneurs in Korea)	education is more effective for students than for experienced entrepreneurs.
Jaroslav Korpysa (2020)	Entrepreneurial management in SMEs	Mixed Method: Theoretical Concept Review + Empirical Case Study	Entrepreneurial management is integrated with strategy, knowledge, and innovation. Coexistence of orientations (strategic, knowledge, innovation) helps SMEs recognize and seize opportunities for sustainable growth.

Adolescence and Skill Development

In the field of entrepreneurial management, numerous studies have focused on the development of entrepreneurial skills among adolescent youth, with an emphasis on education and extracurricular activities. Moon-Ho R Ho et al. (2018) highlighted the effectiveness of systematic entrepreneurship training, showing that such programs significantly enhance entrepreneurial alertness and efficacy in adolescents. This study provides evidence that both active and passive learning elements contribute to the improvement of these skills. Similarly, Ana Dias Daniel (2020) explored the impact of junior enterprises (JEs) on entrepreneurial attitudes and intentions, finding that students involved in JEs exhibited higher levels of entrepreneurial intention and attitude, with a particularly strong effect on engineering students compared to those in social sciences. The influence of personal and contextual factors on entrepreneurial potential is also observed by Martin Obschonka et al. (2016), who emphasized the importance of personality traits such as leadership and creativity in fostering entrepreneurial alertness and career intention. Furthermore, the study by Lidia E. Santana Vega et al. (2016) revealed that self-employment aspirations in adolescents were influenced by gender, age, and school type, suggesting that socio-economic and institutional factors play a critical role in shaping entrepreneurial ambitions.

Several studies underscore the role of extracurricular activities in the development of entrepreneurial skills. For example, Anu Raappana et al. (2024) found that family background, school, and leisure activities are key factors in shaping entrepreneurial potential in adolescents, while Femi Vance (2016) discussed the holistic nature of skill-building in after-school programs, where youth engage in various learning actions like inquiry and peer education. In line with this, Yuyeong Park (2024) emphasized the importance of experiential learning in entrepreneurship education, where students develop practical skills by applying theoretical knowledge. Hatem Khalil et al. (2024) further contributed by showing how entrepreneurship education cultivates individual entrepreneurial orientation (IEO), which in turn influences entrepreneurial intentions. The findings of Lurdes D. Patrício et al. (2024) and Jun Cui et al. (2019) also reinforce the idea that entrepreneurship education, coupled with an entrepreneurial mindset, significantly affects students' entrepreneurial intentions, particularly through structured educational programs and extracurricular activities.

Additionally, several studies suggest that entrepreneurship education plays a critical role in shaping youth entrepreneurial intentions and behaviors. Fauzia Jabeen et al. (2017) proposed that UAE universities have a pivotal role in nurturing an entrepreneurial mindset among youth, while Valentina Ndou et al. (2018) explored the role of entrepreneurship centers in fostering entrepreneurial competencies. Saparuddin Mukhtar et al. (2021) and Iqtidar A. Shah et al. (2020) highlighted the mediating role of entrepreneurial mindset in the relationship between entrepreneurship education and entrepreneurial intention. Finally, Puji Handayati et al. (2020) and Wang Jiatong et al. (2021) found that an entrepreneurial mindset significantly mediates the impact of entrepreneurship education on entrepreneurial intentions. These findings collectively underscore the value of structured entrepreneurship education and extracurricular activities in developing essential entrepreneurial skills in adolescents, preparing them for the challenges of the future workforce.

Author(s) & Year	Focus Area	Methodology	Key Findings / Contributions
Moon-Ho R Ho et al. (2018)	Impact of entrepreneurship training on adolescents	Two-wave online survey among 328 students (aged 13–16)	Entrepreneurship training enhances entrepreneurial alertness and efficacy; active and passive learning contribute to these improvements.

Ana Dias Daniel (2020)	Influence of junior enterprises on entrepreneurial intentions	Comparison of engineering and social science students (132 in total)	Students in junior enterprises show higher entrepreneurial intentions; impact is stronger for engineering students.
Martin Obschonka et al. (2016)	Entrepreneurial mindset and career intention	Longitudinal study (N=523)	Personality traits like leadership, self- esteem, and creativity predict entrepreneurial alertness and career intention among adolescents.
Lidia E. Santana Vega et al. (2016)	Self-employment aspirations among adolescents	Logit model analysis of 3,987 adolescents	Aspirations to be self-employed increase with lower educational levels and academic performance, particularly in foreign students and state schools.
Martin Obschonka (2018)	Role of adolescence in entrepreneurial development	Literature review and biopsychosocial model development	Early adolescence is a crucial stage for developing entrepreneurial skills, influenced by biology, context, and self-concept development.
Anu Raappana et al. (2024)	Development of entrepreneurial potential among adolescents	Linear regression analysis (N=10,979)	School, family background, and leisure activities influence entrepreneurial potential; their relative importance is examined.
Femi Vance (2016)	Skill-building in after-school programs	Qualitative analysis of 49 semi-structured observations	Identified four types of learning actions (inquiry, contribution, self- regulation, peer education) that enhance cognitive engagement in youth skill-building.
Yuyeong Park (2024)	Role of entrepreneurship education in developing skills	Literature review and empirical evidence analysis	Emphasized experiential learning, educators' role, and contextual factors in fostering entrepreneurial skills.
Hatem Khalil et al. (2024)	Impact of entrepreneurship education on individual orientation	Structural equation modeling (N=245)	Entrepreneurship education cultivates entrepreneurial orientation (IEO) and significantly impacts entrepreneurial intentions.
Lurdes D. Patrício et al. (2024)	Entrepreneurial attitudes and intentions among graduates	Regression models and fsQCA analysis from GEM data	Graduates' entrepreneurial intentions are influenced by the perceived knowledge/skills needed to start a business; media and culture play key roles.
Jun Cui et al. (2019)	Impact of entrepreneurship education on entrepreneurial mindset	Structural equation modeling (N=1428)	Entrepreneurship education enhances entrepreneurial inspiration, which mediates the formation of entrepreneurial mindset.
Fauzia Jabeen et al. (2017)	Youth entrepreneurial mindset in UAE	Literature review and structural modeling	Found that individual and environmental factors, along with university involvement, significantly

			impact youth entrepreneurial mindset in UAE.
Valentina Ndou et al. (2018)	Role of entrepreneurship centers in entrepreneurial education	Web-based content analysis of 105 programs	Identified key dimensions of entrepreneurship education in centers, including target audience, learning objectives, and pedagogies.
Saparuddin Mukhtar et al. (2021)	Relationship between entrepreneurship education, culture, and intention	Structural equation modeling (N=376)	Found that entrepreneurial mindset accelerates entrepreneurial intentions; no significant direct link between education and intention.
Iqtidar A. Shah et al. (2020)	Role of entrepreneurship education in entrepreneurial intentions	True experimental design with control group (N=500)	Entrepreneurship education moderates the relationship between attitude, subjective norms, and self-efficacy on entrepreneurial intentions.
Puji Handayati et al. (2020)	Entrepreneurship education and entrepreneurial intention	SEM-based PLS approach (survey of vocational students)	Entrepreneurship education positively influences entrepreneurial intentions and mindset; entrepreneurial mindset mediates the relationship.
Wang Jiatong et al. (2021)	Influence of entrepreneurial education on entrepreneurial intention	Structural equation modeling (N=365)	Entrepreneurship education, mindset, and creativity significantly influence entrepreneurial intention, with self-efficacy as a partial mediator.
Saparuddin Mukhtar et al. (2021)	Entrepreneurship education, culture, and intention	SEM approach with 376 students	The entrepreneurial mindset accelerates entrepreneurial intention; strong link between education, culture, and mindset.
Sophia Rodriguez et al. (2020)	Development of entrepreneurial mindset through project-based learning	Quasi-experimental design (comparison of student groups)	Project-based learning significantly increases entrepreneurial mindset in students, with positive impact on career readiness and success perceptions.

Entrepreneurial Skills: Classification and Relevance

Entrepreneurial skills are crucial for business success, with various studies highlighting key competencies such as creativity, innovation, and business management. Grace Jamie et al. (2020) emphasized the importance of personal traits and leadership skills in achieving entrepreneurial objectives. Shehnaz Tehseen (2025) suggested that while entrepreneurial competencies are vital, external relationships with customers and suppliers play a significant role in the success of SMEs. Panicha Hatthakijphong et al. (2019) used the AHP method to identify that business management and critical thinking are top skills for entrepreneurs, with aspiring entrepreneurs overestimating creativity. Laura Vall-llosera Casanovas et al. (2022) found that male students with vocational training showed greater entrepreneurial potential, highlighting the role of socio-demographic factors. Fatima Fouad Almahry (2018) emphasized the role of entrepreneurship education in developing technical, management, and personal skills. Collectively, these studies stress the importance of education, personal traits, and external resources in fostering entrepreneurial success.

Author(s) & Year	Focus Area	Methodology	Key Findings / Contributions
Grace Jamie et al. (2020)	Entrepreneurial competencies for business success	Theoretical approach and literature review	Personal traits, leadership skills, and core competencies positively influence entrepreneurial performance and business success. Emphasizes the role of training and proactive behavior.
Shehnaz Tehseen (2025)	Entrepreneurial competencies and success in Malaysian SMEs	Conceptual paper using RBV and RDT theories	Entrepreneurial competencies are essential, but external integration (customer and supplier relationships) is key to SME success. Emphasizes the need for sustainable competitive advantage.
Panicha Hatthakijphong et al. (2019)	Importance of entrepreneurial skills for entrepreneurs	Survey and Analytic Hierarchy Process (AHP)	Business management and critical thinking skills are ranked highest. Aspiring entrepreneurs overestimate creativity and innovation; background differences influence skill priorities.
Laura Vall-Ilosera Casanovas et al. (2022)	Entrepreneurial skills among university students	Self-assessment using Tricuspid model and bivariate analysis	Male students with vocational training and work experience exhibit greater entrepreneurial potential. Identifies socio-demographic factors influencing entrepreneurial capacity.
Fatima Fouad Almahry (2018)	Relationship between entrepreneurship education and skills	Systematic literature review	Entrepreneurship education develops technical, business management, and personal entrepreneurial skills, crucial for overcoming challenges in entrepreneurship.

Entrepreneurship Education and Training Programs

The literature on Entrepreneurship Education and Training Programs (EETPs) has consistently explored their impact on developing entrepreneurial competencies and fostering business ventures. Anderson Galvão et al. (2020) examined how EETPs positively influence participants' entrepreneurial orientation and skills, promoting business creation and regional development. Similarly, Amanda Bullough (2025) proposed a framework for effective entrepreneurship programs for women, emphasizing the importance of contextual factors such as funding and human elements in successful program design. Anderson Galvão et al. (2017) provided a comprehensive systematic literature review on EETPs, identifying them as powerful tools for regional development, particularly when academia, government, and business collaborate. Seyedeh Khatereh Daneshjoovash et al. (2018) focused on evaluating EEPs' effectiveness from both student and educator perspectives, highlighting the importance of content and methodology in program success. Nimitha Aboobaker and Renjini D. (2020) investigated the role of entrepreneurial training in shaping students' human capital and entrepreneurial intention, particularly in emerging economies like India.

Other studies, such as Richard Mandel et al. (2015), examined experiential entrepreneurship education in the top 25 U.S. business schools, identifying challenges and opportunities for expanding these programs. Diego Matricano et al. (2017) addressed the measurement of entrepreneurship education's impact, pointing out gaps in understanding long-term effects. Badariah Hj Din et al. (2016) assessed the effectiveness of entrepreneurship education in Malaysian universities, finding strong correlations between business plan development, risk thinking, and self-efficacy. Chung-Gyu Byun et al. (2018) and Sk. Mahmudul Hasan et al. (2017) both provided insights into the improvement of entrepreneurship curricula and educational programs, particularly in Korea and Bangladesh. Andreas Rauch et al. (2010) and İsa Deveci et al. (2018) emphasized the positive impact of entrepreneurship education on entrepreneurial intentions and behavior. Meanwhile, Martin Lackéus et al. (2013) explored the integration of entrepreneurship education with technology transfer, demonstrating the value of venture creation programs in universities. Other studies, such as those by Niklas Elert et al.

(2014) and Alain Fayolle and Benoit Gailly (2015), focused on the long-term effects and the role of prior exposure to entrepreneurship in the success of these programs. Finally, Eleonora Fiore (2019) and Xianyue Liu et al. (2019) explored the importance of multidisciplinary entrepreneurship programs, highlighting the role of team collaboration, design thinking, and self-efficacy in fostering entrepreneurial intention among students.

Author(s) & Year	Focus Area	Methodology	Key Findings / Contributions
Anderson Galvão et al. (2020)	Impact of EETPs on entrepreneurial competencies and business creation	Questionnaire (103 EETP participants), SmartPLS software for SEM	EETPs positively influence entrepreneurial orientation and skills, fostering company formation and regional development.
Amanda Bullough (2025)	Design of EETPs for women entrepreneurs	Literature review, framework development	Developed a framework for effective EETPs for women, emphasizing program elements, human factors, environment, and funding in developing countries.
Anderson Galvão et al. (2017)	EETPs as facilitators of regional development	Systematic literature review and bibliometric analysis (1973-2016)	EETPs play a key role in regional development; highlights three literature clusters: entrepreneurial universities, spirit, and business creation processes.
Seyedeh Khatareh Daneshjoovash et al. (2018)	Evaluating the effectiveness of EEPs from students' and educators' perspectives	Qualitative-quantitative methodology (291 students, 35 educators)	Positive direct effect of EEPs' essence on objectives, content, and impact. Difference in student and educator perspectives on methods' effectiveness.
Nimitha Aboobaker and Renjini D. (2020)	Effectiveness of EETPs on human capital and entrepreneurial intention	Survey (330 final-year students)	EETPs positively affect entrepreneurial intention, with human capital mediating this relationship.
Richard Mandel et al. (2015)	Experiential entrepreneurship education in top U.S. universities	Survey of program deans and administrators	Found that credit-yielding experiential entrepreneurship programs are abundant, though challenges such as faculty availability constrain growth.
Diego Matricano et al. (2017)	Measuring the effectiveness of entrepreneurship education	Literature review and empirical contributions in special issue	Highlights the importance of measuring the impact of EETPs, focusing on commitment of aspiring entrepreneurs.
Badariah Hj Din et al. (2016)	Effectiveness of entrepreneurship education programs in Malaysia	Survey (Malaysian university students)	EETPs increase entrepreneurial skills, self-efficacy, and job satisfaction, showing strong links to business plan development and risk-thinking.
Chung-Gyu Byun et al. (2018)	Effectiveness of entrepreneurship curriculum in graduate schools in Korea	Importance-Performance Analysis (IPA), questionnaire survey	Identified differences in curriculum preferences, providing insights for curriculum improvement in entrepreneurship graduate programs.

Sk. Mahmudul Hasan et al. (2017)	Role of university entrepreneurial education in entrepreneurship development	Quantitative research (200 students)	Found that university-level entrepreneurship education positively impacts entrepreneurship development and policy-making for future programs.
Andreas Rauch et al. (2010)	Effectiveness of entrepreneurship education in influencing entrepreneurial behavior	Quasi-experimental design (MSc entrepreneurship vs. supply chain management)	EETPs increase entrepreneurial intentions and attitudes, with intentions mediating future entrepreneurial behavior.
İsa Deveci et al. (2018)	Entrepreneurship education in teacher education programs	Thematic analysis of previous studies	Highlights the importance of entrepreneurship education in teacher training, particularly at the basic education level, recommending in-service training for teachers.
Martin Lackéus et al. (2013)	Venture creation programs in university entrepreneurship education	Literature review and case study of 18 programs	Found that venture creation programs bridge the gap between entrepreneurship education and technology transfer, enhancing value creation and entrepreneurial learning.
Niklas Elert et al. (2014)	Long-term impact of high school entrepreneurship education	Propensity score matching (JACP alumni vs. matched sample)	JACP participation increases long-term likelihood of firm creation and entrepreneurial income, but has no effect on firm survival.
Alain Fayolle and Benoit Gailly (2015)	Impact of entrepreneurship education programs on attitudes and intentions	Original research design measuring initial and persistent effects	Positive effects of EEPs are more significant for students with little previous entrepreneurial exposure; strong effects on entrepreneurial intentions.
Eleonora Fiore (2019)	Multidisciplinary approach to entrepreneurship education	Case study, pre- and post-surveys	Shows the benefits of multidisciplinary teams and design-thinking in entrepreneurship education, with slight increases in entrepreneurial skills and intentions.
Xianyue Liu et al. (2019)	Effects of entrepreneurship education and self-efficacy on entrepreneurial intention	Survey (327 college students in China)	Entrepreneurial education significantly increases entrepreneurial intention, while self-efficacy positively influences entrepreneurial attitude and intention.

Below is a table that identifies important elements related to Entrepreneurship Education and Adolescent Development from the literature discussed:

Element	Description	Authors
Entrepreneurial Competencies	Key skills required for business success, including innovation, creativity, and business management. These competencies can be developed through training and education.	Grace Jamie et al. (2020), Anderson Galvão et al. (2020), Shehnaz Tehseen (2025)
Entrepreneurial Orientation	Participants' willingness to engage in entrepreneurial ventures, which is influenced by their education and training.	Anderson Galvão et al. (2020), Badariah Hj Din et al. (2016)
Human Capital Development	The development of individual skills, knowledge, and abilities that increase a person's capacity for entrepreneurship.	Nimitha Aboobaker and Renjini D. (2020), Sk. Mahmudul Hasan et al. (2017)
Self-Efficacy	The belief in one's ability to succeed in entrepreneurial endeavors, influenced by educational experiences and personal traits.	Xianyu Liu et al. (2019), Nimitha Aboobaker and Renjini D. (2020)
Regional Development	Entrepreneurship education programs contribute to regional growth by fostering new business ventures and enhancing local entrepreneurial ecosystems.	Anderson Galvão et al. (2017), Badariah Hj Din et al. (2016)
Gender-Specific Frameworks	Tailored entrepreneurship education programs that cater specifically to women's needs and challenges, helping them develop leadership and entrepreneurial skills.	Amanda Bullough (2025)
Experiential Learning	Learning through practical experiences, including business creation and real-world application of entrepreneurial skills.	Richard Mandel et al. (2015), Martin Lackéus et al. (2013)
Innovation and Creativity	The emphasis on fostering innovative thinking and creative problem-solving, which are essential components of entrepreneurship education.	Panicha Hatthakijphong et al. (2019), Eleonora Fiore (2019)
Multidisciplinary Education	Entrepreneurship programs that involve collaboration across different disciplines, encouraging diverse perspectives and team-based solutions.	Eleonora Fiore (2019)
University Collaboration	The collaboration between universities, government, and business entities to support entrepreneurship education and regional development.	Anderson Galvão et al. (2017), Martin Lackéus et al. (2013)
Entrepreneurial Intention	The intention of students or adolescents to pursue entrepreneurship as a career path, influenced by education and training.	Andreas Rauch et al. (2010), Alain Fayolle and Benoit Gailly (2015), Xianyu Liu et al. (2019)
Sustainability of Ventures	Education programs that prepare students for long-term business sustainability, including knowledge of market dynamics and business resilience.	Niklas Elert et al. (2014), Alain Fayolle and Benoit Gailly (2015)
Impact of Pre-Exposure to Entrepreneurship	The role of prior exposure or personal experience with entrepreneurship, which can enhance the effectiveness of educational programs.	Alain Fayolle and Benoit Gailly (2015), Xianyu Liu et al. (2019)
Impact on Career Success	Entrepreneurship education influences future career outcomes, including business creation, job satisfaction, and financial success.	Badariah Hj Din et al. (2016), Richard Mandel et al. (2015)

Gaps Identified in the Literature

The literature on Entrepreneurship Education and Training Programs (EETPs) identifies numerous deficiencies that necessitate additional investigation. There is a lack of agreement regarding the long-term effects of these programs, particularly on entrepreneurial behaviour and venture survival, despite the fact that many studies focus on the efficacy of EETPs in fostering entrepreneurial intentions and skills. Niklas Elert et al. (2014) discovered that involvement in initiatives such as Junior Achievement enhanced the probability of business establishment and revenue generation, yet it exerted no substantial influence on business sustainability. The effectiveness of these programs may vary depending on the individual's background, as highlighted by Alain Fayolle and Benoit Gailly (2015), who found that the impact of entrepreneurship education is less pronounced for those with prior entrepreneurial exposure.

There exists a paucity of research regarding the integration of entrepreneurship education with other domains, including technology transfer and multidisciplinary collaboration, as highlighted by Martin Lack us et al. (2013) and Eleonora Fiore (2019). While these studies highlight the significance of integrating entrepreneurship with technology and design thinking, further research is required to ascertain the effective implementation of such integrative methodologies in various educational contexts. Furthermore, the efficacy of entrepreneurship education in various socio-economic contexts, including developing nations or particular demographic segments (e.g., women entrepreneurs), is still inadequately examined. Although research such as Amanda Bullough (2025) focusses on women, there exists a more extensive necessity for investigation into how contextual factors, including local culture and available resources, affect the efficacy of EETPs. Moreover, there are still gaps in our understanding of the role of experiential learning in entrepreneurship education, especially in non-traditional educational environments, as noted by Richard Mandel et al. (2015). The literature indicates a necessity for more rigorous methodologies in evaluating the impact of these programs, as numerous studies depend on self-reported data or constrained sample sizes, as highlighted by Seyedeh Khatereh Daneshjoovash et al. (2018) and Nimitha Aboobaker and Renjini D. (2020). Filling in these gaps can help create more focused and useful entrepreneurship education programs that meet the needs of all types of people who want to start their own businesses.

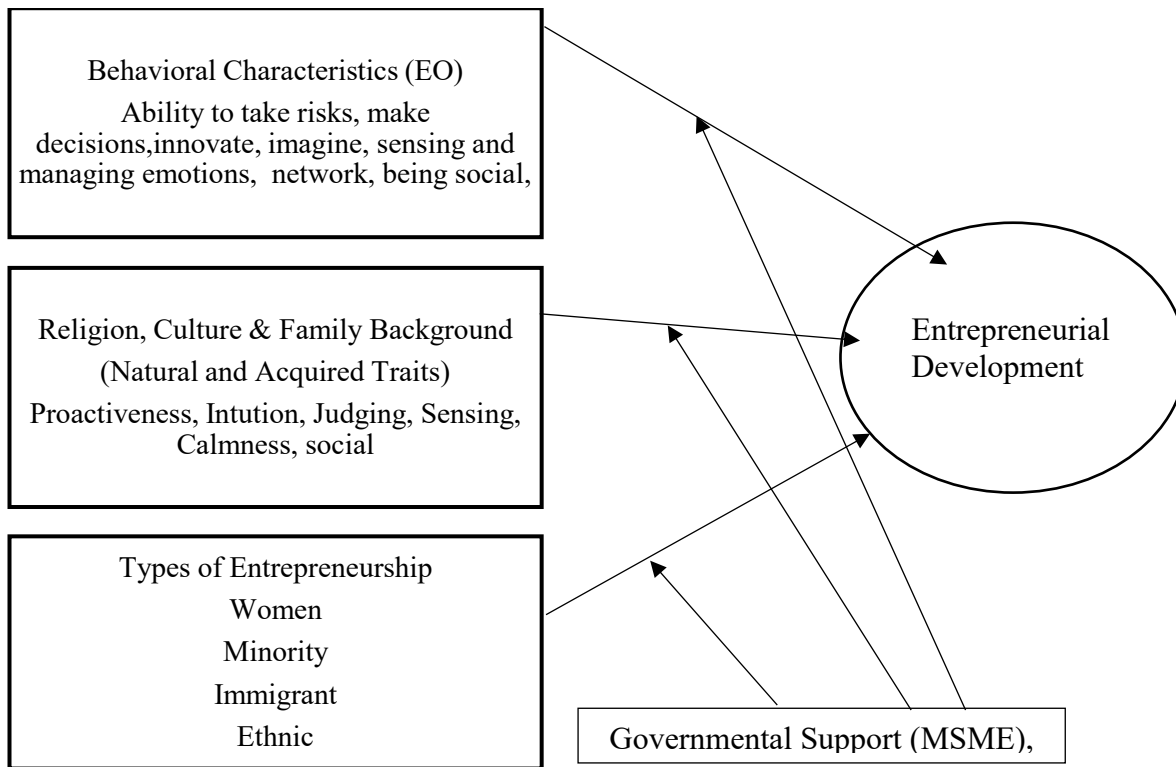
Findings

The literature indicates that the cultivation of entrepreneurial skills during adolescence markedly impacts long-term entrepreneurial intentions and competencies. Numerous studies validate the significance of early engagement in entrepreneurship education, particularly via experiential and project-based learning methodologies. Personal characteristics, including creativity, self-efficacy, and leadership, are identified as essential factors influencing entrepreneurial orientation. According to the review, adolescent entrepreneurial growth is strongly influenced by junior enterprise models, extracurricular activities, and family and school involvement. Furthermore, structural equation modelling across multiple studies substantiates that an entrepreneurial mindset mediates the relationship between education and intention. Programs that include collaboration between different fields, design thinking, and mentorship seem to work better. Gender, socio-economic status, and institutional context also influence the effectiveness of entrepreneurial learning. Regional and policy support, such as backing for MSMEs and integration into the curriculum, are important because they help create external ecosystems.

Implications for Future Research and Practice

Future research should focus on longitudinal studies to assess the sustainability of entrepreneurial behaviour following education. It is imperative to create standardised assessment instruments that can more effectively evaluate entrepreneurial competencies across diverse demographic and geographic contexts. Researchers ought to concentrate on under-represented groups, including women, rural students, and economically disadvantaged adolescents, to enhance the understanding of contextual influences on entrepreneurial outcomes. From a practical perspective, curriculum developers ought to incorporate experiential and multidisciplinary learning methodologies more systematically into formal education. Policymakers must contemplate collaborations among educational institutions, the private sector, and governmental entrepreneurship initiatives (such as MSME programs) to guarantee comprehensive and practical entrepreneurial development. To close the knowledge gap between theory and practice, educators should receive pedagogical training specifically designed for entrepreneurial teaching.

Proposed Model for further Research: Antecedent effecting on Entrepreneurial Development



Conclusion

The literature collectively emphasises the crucial influence of adolescence on the development of entrepreneurial mindsets and behaviours. Entrepreneurial education—particularly when grounded in experiential, individualised, and contextually relevant frameworks—substantially improves entrepreneurial intentions, effectiveness, and career preparedness. Individual characteristics, socio-economic status, and conducive ecosystems, including educational institutions and policy frameworks, facilitate entrepreneurial development. But there are still problems, such as differences in access, gender bias, and methodological flaws in research. A more welcoming and stronger entrepreneurial ecosystem for adolescent youth can be fostered by addressing these gaps through targeted research and cooperative policy interventions. In the end, teaching young people entrepreneurial management skills is not only an important part of their education but also a necessity for the socio-economic growth of their country and the world.

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