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# Green entrepreneurship intention among high school students: a teachers' view

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There is a gap in the view of teachers about green entrepreneurship intention in high school students. The objective of the current article is to evaluate the factors that explain from private high schools in Peru the intention of green entrepreneurship from the view of teachers. It was carried out with a sample size of 163 teachers from fifth high schools. The research model was evaluated by partial least square structural equation modeling (PLS-SEM) which is a technique for multivariate analysis. Extracurricular support and country support showed an effect on entrepreneurial self-efficacy. Also, entrepreneurial self-efficacy had an effect on green entrepreneurship intention. Finally, self-efficacy was a mediator between extracurricular support, country support, and green entrepreneurial intention. These outcomes can be used by the Ministry of Education and high school planners to use the variables that show more effect and include strategies to increase the green entrepreneurial intention among school students as the creation of annual programs of practical training and entrepreneurship accelerators to develop skills among the students. Also, it can be relevant that the professors can receive specific training in green entrepreneurship because they can guide their students during the daily classes and extracurricular activities as well.

## KEYWORDS

intention of green entrepreneurship, schools, students, entrepreneurs, teachers

## Introduction

Based on the 17 Sustainable Development Goals (SDGs), which correspond to a renewed agenda for sustainable development to be achieved by 2030, today, more than ever, the importance of promoting economic growth by making more rational use of natural resources and energy sources that - among others - drive it is more evident. That is, considering the negative externalities in the use of fossil fuels in the generation of goods and services production due to the emission - among others - of carbon dioxide. There is a close relationship between the development of social and environmental conditions (Fan et al., 2019), and they are approached from perspectives such as environmental ethics, Corporate Social Responsibility (CSR) (López-Concepción et al., 2022) and the structuring of environmental and political economy (local and global), as well as the implementation of the same, to face - for example - global warming (Iqbal et al., 2020).

Through promoting eco-friendly businesses and sustainable practices, this model contributes to several Sustainable Development Goals (SDGs). It directly addresses SDG 7

(Affordable and Clean Energy), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 11 (Sustainable Cities and Communities) by encouraging the development of green energy and sustainable urban planning (Østergaard et al., 2022). Moreover, it supports SDG 12 (Responsible Consumption and Production) by promoting eco-friendly product manufacturing and reducing waste (Ayub et al., 2021). Green entrepreneurship's focus on renewable energy and carbon-neutral practices also advances SDG 13 (Climate Action) (Neumann, 2022), while its emphasis on sustainable agriculture and forestry aids SDG 14 (Life Below Water) (Petrariu et al., 2021) and SDG 15 (Life on Land). Additionally, it helps to alleviate poverty (SDG 1) and promote decent work (SDG 8) by creating jobs in sustainable sectors. Ethical business practices align with SDG 16 (Peace, Justice, and Strong Institutions), and collaborative partnerships enable progress toward all SDGs, as indicated by SDG 17 (Partnerships for the Goals). In summary, this model of green entrepreneurship plays a significant role in advancing various SDGs and promoting a more sustainable and equitable future. Promoting awareness - and the respective evaluation - of the relevance of what has come to be called green entrepreneurship in schools is a vital issue: incorporating entrepreneurship into the school education curriculum but within the framework of sustainable business (Barba-Sánchez et al., 2022). Therefore, it is necessary to know what teachers think about the academic support that students receive in their classes regarding green entrepreneurship; on the other hand, it is also necessary to evaluate the support given through extracurricular activities such as receiving visits from successful entrepreneurs or even visiting ventures that are achieving good results. Finally, we would like to know the perception of the country's support through regulations or programs to promote entrepreneurship. With all of the above, it is appropriate to also measure the role that self-efficacy for entrepreneurship can play in connecting the effects of the 3 variables explained above and the intention to undertake green ventures.

For this purpose, the proposals of Albert Bandura in the field of Social Cognitive Theory (SCT) have been addressed (Bandura and Walters, 1977), the Theory of Planned Behavior (TPB) proposed by Ajzen (1991) and Resources-Based Theory (RBT) proposed by Penrose (1960). Social cognitive theory, developed by Albert Bandura, postulates that human learning is based on observation, imitation, and the influence of social factors in the formation of beliefs and behaviors (Bandura and Walters, 1977). Applied to multivariate research on green entrepreneurship intention, this theory suggests that people can be motivated to undertake green initiatives by observing role models and perceiving that they have the ability to achieve it. Social factors, such as community influence and business networks, can also influence the intention to become a sustainable entrepreneur. This research could identify significant correlations between these elements, offering a deeper understanding of the determinants of green entrepreneurship intention. Also, The Theory of Planned Behavior (TPB) (Ajzen, 1991) is a psychological framework that explores the influences behind human intentions and behaviors. It is based on three elements: attitude toward the behavior, subjective norm and perceived control which explain the intention of behavior. This theory would be applied to understand the motivations behind sustainable business decisions. This would provide a solid basis for understanding and predicting green entrepreneurship intention in a multivariate setting. TPB (Ajzen, 1991) takes the intention of

behavior, which would be students' intention of green entrepreneurship from the teacher's perception.

RBT (Penrose, 1960) argues that the organizations, in this case, students and future entrepreneurs, seek to acquire and develop valuable, rare, irreplaceable, and non-imitable resources (VRIN) to gain a competitive advantage. In this context, high school students can be considered "organizations" seeking resources that enable them to develop green entrepreneurship intentions. In the context of green entrepreneurship, valuable resources can include knowledge about sustainability, environmental awareness and motivation to address green challenges. Teachers play a crucial role in providing students with information and guidance on sustainability, which can influence their perception of the importance of undertaking green projects. Therefore, the teachers' perspective in promoting environmental awareness among students is crucial. Rare resources are those that are not readily available to everyone. In the context of green entrepreneurship intention, the lack of examples and role models in secondary education can be considered a rarity. Teachers can play a vital role by exposing students to success stories in green entrepreneurship and connecting them with people and organizations that can serve as mentors and provide rare resources, such as technical knowledge and financing. Non-substitution refers to the inability to replace certain resources with alternatives. In the field of green entrepreneurship, students' commitment and passion for sustainability can be non-substitutable resources. Teachers can encourage these attitudes and beliefs, promoting the idea that green entrepreneurship is a unique way to contribute to the solution of environmental challenges (Yi, 2021). This may influence students' intention to undertake sustainable projects rather than opting for other career options. Non-imitability refers to the difficulty of others copying certain resources. In the context of green entrepreneurship, the network of contacts and reputation in the field of sustainability can be non-imitable resources. Teachers can help students build connections in the environmental community, which can open unique opportunities and give them a competitive advantage in the green entrepreneurship arena.

There is an interesting complementarity between these theories' constructs concerning explaining human behavior, especially in the driver called self-efficacy. Human behavior can be explained by different factors that influence the intention to perform a given behavior, which also depends on external variables, subjective norms, and social or cultural control.

In other words, for adequate school education on environmental and entrepreneurship issues, Lieberman's proposal (2013) regarding transversal incorporation of the environmental issue concerning both natural and social sciences would not be enough. The curricular and pedagogical change should contemplate some constructs of Bandura's Social Cognitive Theory (Bandura and Walters, 1977) and Ajzen's Theory of Planned Behavior (TPB) (Ajzen, 1991). To this end, we have previously diagnosed the elaboration of research works elaborated to capture and identify the relevance of environmental and entrepreneurship topics at the school level in Latin America and Peru, as well as those elaborated in other countries and by various education agencies at the national and international level, as is the case of UNESCO.

TPB (Ajzen, 1991) is a psychological model that provides a basis for understanding and predicting human actions. The TPB holds that a person's intention to perform a specific behavior is determined by

three main factors: attitudes toward that behavior, subjective norms, and perceived control over that behavior. The cognitive, social learning theory, developed by [Bandura and Walters \(1977\)](#), delves into how people gain knowledge, abilities, and conduct using observation and social interaction.

Green entrepreneurial intention refers to an individual's interest, attention, and decision to take action toward a specific goal. This intention is influenced by various motivating factors that affect behaviour, according to the TPB ([Ajzen, 1991](#)). This concept has been discussed by [Meoli et al. \(2020\)](#).

Academic support refers to the training activities provided by universities to help businesses grow ([Bergmann et al., 2018](#)). We anticipate that this support will include required or optional courses to teach how to develop businesses, hands-on projects to learn how to implement and grow them, and internships in organizations focused on entrepreneurship. Additionally, universities may offer professional or graduate programs that incorporate entrepreneurship content.

Extracurricular support involves imparting technical knowledge on entrepreneurship to students, which helps create awareness about it. This support motivates students to develop successful ventures and pursue entrepreneurship as a profession ([da Silva Moreira et al., 2017](#)). As a result, students come up with innovative business ideas, not just in the social and environmental fields, but also in other areas. The concept of country support refers to a country's efforts to promote the growth of businesses ([Fichter and Tiemann, 2018](#)). Our evaluation focuses on whether students feel encouraged by their institutions to establish ecologically sustainable enterprises within their country. We also consider whether students perceive their country's economy as conducive to entrepreneurship. This can be reflected in their emotions and attitudes toward obtaining bank loans for business development.

Entrepreneurial self-efficacy (ESE) describes what a person can believe about their ability to perform a specific activity successfully ([Bandura and Walters, 1977](#)). Believing in one's own ability to succeed in an activity and incorporating specific behaviors into daily routines is known as self-efficacy ([Krueger et al., 2000](#)). ESE is the confidence one has in developing entrepreneurial activities and generating business ([Newman et al., 2019](#)). Research has demonstrated that high ESE has a positive influence on entrepreneurial intentions ([Kumar and Shukla, 2022](#)). This means that individuals with great confidence in themselves are more likely to engage in new entrepreneurial activities.

*Research question:* What is the effect of academic support, extracurricular support and country support, through entrepreneurial self-efficacy, on the entrepreneurial intention of high school students from the teacher's point of view? The specific questions are associated with the research model show in [Figure 1](#).

## Theoretical framework and hypotheses

### Academic support

It refers to the various training activities provided by universities to help enterprises grow ([Bergmann et al., 2018](#)). We expect that this support will include both compulsory and elective courses that teach students how to develop ventures, as well as practical projects to learn

about the implementation and development of those ventures. Additionally, universities should provide pre-professional internships in organizations that focus on entrepreneurship.

### Extracurricular support

It refers to the actions taken by a university to equip students with technical knowledge about entrepreneurship, which in turn helps to create awareness about entrepreneurship. This can motivate students to establish their own successful businesses upon graduation, and can also serve as a form of professional development ([da Silva Moreira et al., 2017](#)).

### Country support

It is defined as a country's efforts to contribute to the development of ventures ([Fichter and Tiemann, 2018](#)). Based on this definition, we assessed whether students felt institutionally motivated to establish ecological enterprises in their country. We also examined whether students perceived their country's economy as providing ample opportunities for entrepreneurship, which could be reflected in their attitudes and emotions toward obtaining bank loans for entrepreneurship development.

### Entrepreneurial self-efficacy

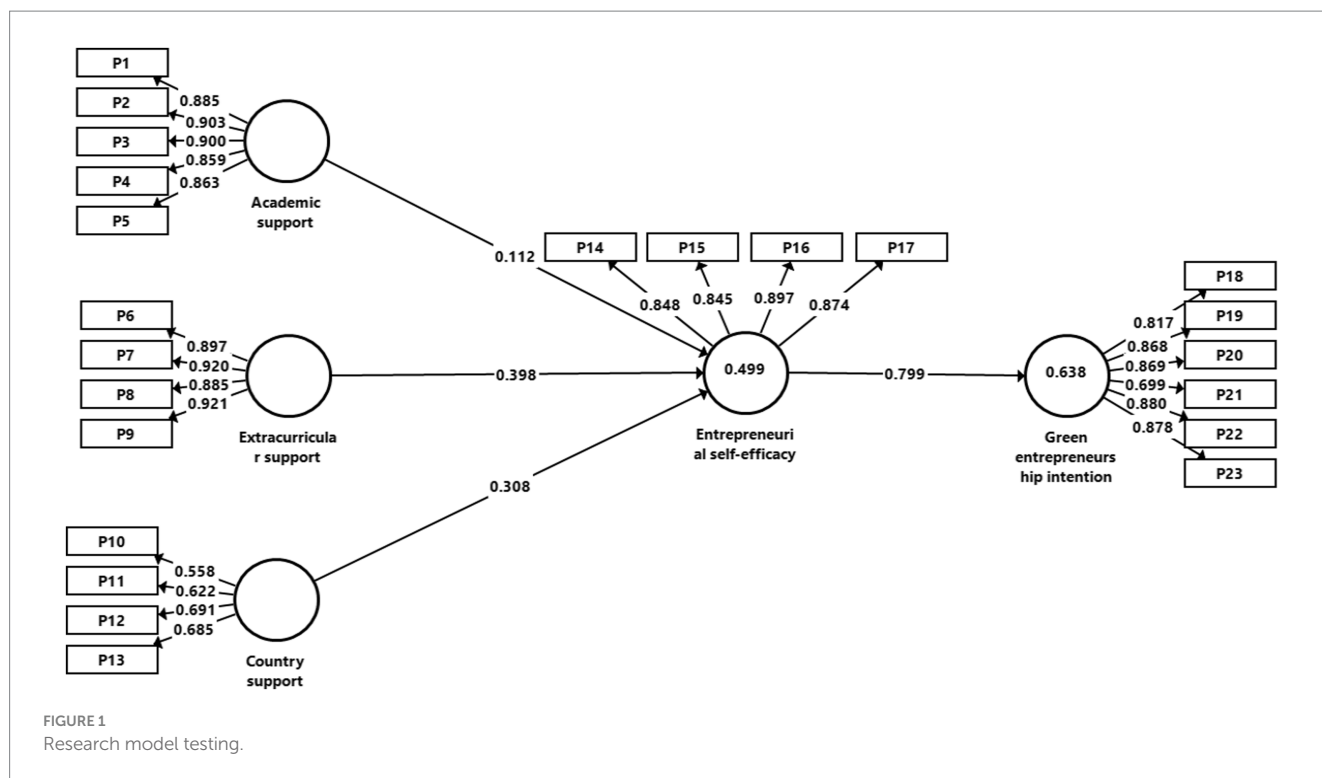
This variable refers to an individual's belief in their ability to succeed in a particular activity and to incorporate specific behaviors in their daily routine ([Krueger et al., 2000](#)). It is specifically related to one's confidence in developing entrepreneurial activities and generating business ([Newman et al., 2019](#)). Several studies have shown that this variable has a positive effect on entrepreneurial intention ([Li et al., 2020](#)).

### Green entrepreneurial intention

The term green entrepreneurial intention describes a person's interest, attention, and decision to take action toward a specific goal ([Meoli et al., 2020](#)). Various motivating factors influence a person's intention to act and directly impact their behavior, as proposed by the Theory of Planned Behavior ([Ajzen, 1991](#)). Intention is the stage that comes before action.

### Academic support and entrepreneurial self-efficacy

Academic support, including formal education, training and feedback, can significantly influence entrepreneurial self-efficacy. Previous studies ([Maheshwari and Kha, 2022](#)) have shown that receiving academic support, such as business mentoring and entrepreneurship courses, can increase entrepreneurs' confidence in their abilities to create and manage businesses. This, in turn, can foster



greater entrepreneurship and a willingness to take risks in pursuit of business opportunities.

*H1:* Academic support has a positive and significant effect on entrepreneurial self-efficacy.

### Extracurricular support and entrepreneurial self-efficacy

Extracurricular support, such as mentoring, workshops, or entrepreneurship groups, can play a crucial role. These activities provide an environment where individuals can gain knowledge, skills and experience, which in turn increases their entrepreneurial self-efficacy. Social support and positive feedback from peers and mentors strengthen participants' confidence in their entrepreneurial capabilities, which, in turn, increases their propensity to become entrepreneurs. Therefore, the effect of extracurricular support on entrepreneurial self-efficacy can be explained within this theoretical framework, highlighting the importance of supportive environments in the development of entrepreneurial self-efficacy (Bandura and Walters, 1977).

*H2:* Extracurricular support has a positive and significant effect on entrepreneurial self-efficacy.

### Country support and entrepreneurial self-efficacy

A strong supportive environment, including entrepreneur-friendly policies and a culture that values risk and innovation, can strengthen individuals' confidence in their entrepreneurial skills. In addition, the presence of support networks and successful role models

within the country can increase the self-efficacy of aspiring entrepreneurs. Davidsson and Honig (2003) have highlighted the importance of these contextual factors in the development of entrepreneurial self-efficacy.

*H3:* Country support has a positive and significant effect on entrepreneurial self-efficacy.

### Entrepreneurial self-efficacy and green entrepreneurial intention

Based in Bandura and Walters (1977) and in the context of green entrepreneurial intention, entrepreneurial self-efficacy may influence individuals' willingness to take risks and pursue environmentally friendly entrepreneurial opportunities. The theoretical model proposed in this article is based on the idea that higher levels of entrepreneurial self-efficacy are positively related to green entrepreneurial intention. Individuals with higher entrepreneurial self-efficacy are expected to be more willing to engage in sustainable entrepreneurial activities, as they are confident in their ability to overcome obstacles and challenges.

*H4:* Entrepreneurial self-efficacy has a positive and significant effect on green entrepreneurial intention.

### Mediator effect of entrepreneurial self-efficacy between academic support and green entrepreneurial intention

Entrepreneurial self-efficacy could act as a mediator in this relationship. When individuals receive academic support, their

entrepreneurial self-efficacy is likely to increase, as they acquire specific skills and knowledge. In turn, higher entrepreneurial self-efficacy might influence their entrepreneurial intention, especially in the context of green entrepreneurship, where confidence in the ability to address environmental challenges is crucial (Krueger et al., 2000).

*H5: Entrepreneurial self-efficacy has a mediator effect between academic support and green entrepreneurial intention.*

## Mediator effect of entrepreneurial self-efficacy between extracurricular support and green entrepreneurial intention

This process can be understood as a chain of events in which entrepreneurial self-efficacy acts as an intermediary between extracurricular support and the intention to engage in environmental sustainability entrepreneurship. Extracurricular support can play a crucial role in strengthening entrepreneurial self-efficacy by providing learning opportunities and practical experience. Fayolle and Gailly (2015) note that extracurricular support can significantly influence the development of entrepreneurial skills and self-efficacy.

*H6: Entrepreneurial self-efficacy has a mediator effect between extracurricular support and green entrepreneurial intention.*

## Mediator effect of entrepreneurial self-efficacy between country support and green entrepreneurial intention

The mediating effect of entrepreneurial self-efficacy on the relationship between country support and green entrepreneurship intention is because entrepreneurial self-efficacy increases individuals' confidence to undertake green entrepreneurship, and country support reinforces this self-efficacy by providing an enabling environment. This underlying mechanism may have important implications for promoting green entrepreneurship and sustainability in a country (Neumann, 2022).

*H7: Entrepreneurial self-efficacy has a mediator effect between country support and green entrepreneurial intention.*

## Materials and methods

### Collection of data

The data was obtained by online questionnaires between 1<sup>st</sup> March and 30<sup>th</sup> April 2023. It was established to collect data from teachers in the fifth high school level from one district in Lima, Peru. The study was conducted in Lima because it is the capital of Peru and the city with the largest number of inhabitants. A district with the largest number of private schools was chosen, with a total of 50 schools agreeing to participate. In these schools, the total number of teachers in their last year of teaching was invited and 163 agreed to participate in the study (Table 1).

## Instrument

The items of the five-point Likert scale were used (1 = completely disagree to 5 = completely agree). At the beginning of the questionnaire, the study is presented, mentioning the objective and the free and voluntary participation. Then, questions are asked to confirm that the objective and the confirmation of free and voluntary participation were informed. When the 3 positive answers are obtained then the questionnaire could be started. A pilot test was carried out with 30 questionnaires, which ensured the validity of the questionnaire. The items were used in previous studies for the same variables.

## Academic support

The items were obtained from Wegner et al. (2020).

1. School offers students elective courses on entrepreneurship
2. School offers students project work focused on entrepreneurship
3. School offers students internships focused on entrepreneurship
4. School organizes conferences/workshops on entrepreneurship for students
5. School connects students with entrepreneurs

## Extracurricular support

The items were obtained from Wegner et al. (2020).

6. The school raises awareness of entrepreneurship as a possible career path for students
7. School motivates students to start a new business
8. School provides students with ideas for starting a new business
9. School provides students with the necessary knowledge to start a new business

## Country support

The items were obtained from Alvarez-Risco et al. (2021).

10. In my country, entrepreneurs are encouraged by an institutional structure

TABLE 1 Distribution by years as professors.

Sex	Range of age
<b>Female</b>	
1–5 years	15
6–10 years	16
11–15 years	18
16–20 years	18
More than 20 years	20
<b>Male</b>	
1–5 years	7
6–10 years	18
11–15 years	19
16–20 years	15
More than 20 years	17



11. My country's economy offers many opportunities for entrepreneurs
12. Obtaining bank loans is quite difficult for entrepreneurs in my country.
13. The state laws in my country are adverse to running a business

## Entrepreneurial self-efficacy

The items were obtained from [Robayo-Acuña et al. \(2023\)](#).

14. Creating and maintaining a green business is a task that students can do.
15. Students have the knowledge necessary to develop a green business.
16. The students have enough skills to develop a green business.
17. I believe that the students will be able to develop a successful green business in the future.

## Green entrepreneurial intention

The items were obtained from [Liñán and Jaén \(2020\)](#) and [Alvarez-Risco et al. \(2021\)](#).

18. Students plan to develop an enterprise that addresses green problems in my community.
19. Students recommend developing businesses that solve green problems to their peers.
20. Students' future initiatives will prioritize green benefits over financial benefits.
21. Students would go green if they had the opportunity and resources.
22. Students have seriously thought about becoming green entrepreneurs.
23. Students will make every effort to start and manage their own green business

## Ethical issue

The research protocol was approved by the ethics committee of the Universidad Internacional Iberoamericana by means of act 157 of June 10, 2022.

## Analysis of data

For the study, the data was evaluated using PLS-SEM by SmartPLS software version 3.3.2. PLS-SEM, or Partial Least Squares Structural Equation Modeling, is a multivariate analysis technique used to understand complex relationships between multiple variables. Unlike other techniques, PLS-SEM is especially useful when data are sparse or do not follow a normal distribution. It is also used to analyze structural models and explain complex phenomena by estimating loading coefficients and paths. Because the objective of the present study is to predict constructs or identify key "driver" constructs and since the structural model is complex (some constructs and some indicators), PLS-SEM is used.

The internal consistency of each subscale was analyzed using Cronbach's alpha reliability coefficient, construct and discriminant

validity, and internal consistency through composite reliability. The internal consistency of each subscale was analyzed using Cronbach's alpha reliability coefficient, construct and discriminant validity, and internal consistency through composite reliability. The limitation is that the data come from only one district, and further studies should be conducted to obtain a broader view.

## Results

The total respondents were 163 professors, 99 women (60.73%) and 44 men (39.27%). The average number of years as a teacher in the sample was 16.56. The construct reliability and validity describe the values for each variable ([Table 2](#)).

The discriminant validity was calculated by the [Fornell and Larcker \(1981\)](#) criterion ([Table 3](#)).

Bootstrapping (5000 times) was used to evaluate the significance of the effects ([Streukens and Leroi-Werelds, 2016](#)). All values were significant ( $p$  values  $<0.05$ ) ([Table 4](#)).

The specific indirect effects allow evaluation of the model's moderation effect ([Table 5](#)).

[Figure 1](#) presents the model evaluated. ESE has a positive and significant effect on GEI. Simultaneously, AS, ES and CS positively affect ESE, but only ES and CS have significant effects.

## Discussion

Our study examines the impact of academic, extracurricular and country support for entrepreneurship on the development of ESE and GEI among school students in Peru. We have thoroughly assessed the questionnaire's reliability and validity, and our findings demonstrate that the instrument was reliable, valid, and statistically significant for our sample. Our research provides crucial insights into the factors contributing to GEI and is a valuable resource for those interested in promoting sustainable business practices. These factors recognized allow develop strategies to increase the GEI which include training programs to professors to become leaders in this process of education of students toward green entrepreneurship practice.

The development of citizens in a country is based on education at home and training at school. The effect of ES on ESE confirmed in the current study is similar to that reported in South Africa by [Neneh](#)

TABLE 2 Cronbach's alpha and average variance extracted.

Variable	Cronbach's alpha	Composite reliability	Average variance extracted
Academic support	0.929	0.946	0.778
Country support	0.526	0.735	0.411
Entrepreneurial self-efficacy	0.889	0.923	0.750
Extracurricular support	0.927	0.948	0.821
Green entrepreneurship intention	0.914	0.934	0.702

(2022) and van der Westhuizen and Goyayi (2019); also, similar to results by Shane and Venkataraman (2000) in a review, Pukkinen et al. (2023) in secondary schools students in Finland, in undergraduate students in India (Subhadrammal et al., 2023), Spain (Arranz et al., 2017). Vietnam (Hoang et al., 2021; Nguyen et al., 2021); also, the outcomes are similar to the study of Preedy et al. (2020) in professors in United Kingdom and (Elliott et al., 2020) in Canada. In Peru, there are 5 years of secondary school where different types of learning are generated; however, as shown in the research, there is no impulse from the curricular components oriented toward green entrepreneurship; thus, there could be other factors that may contribute to increasing the GEI, but it is relevant to evaluate the addition of these components absent in the curriculum, including theoretical and practical contents of training oriented to promote the green entrepreneurship. In this sense, it is proposed that high school students can learn various contents of business management and that even though it may seem too many contents or complex to learn, they are increasingly necessary in a hypercompetitive world where it is expected that high school graduates can have a better preparation for their successful passage through universities.

The presence of successful entrepreneurs in the classroom provides students with real examples of people who have achieved success in the world of green entrepreneurship (Boldureanu et al., 2020). These role models can inspire students by showing them that it is possible to turn their ideas into successful and sustainable projects. Successful entrepreneurs can share their personal experiences, challenges and achievements, which helps students understand the reality of the business world. This allows them to anticipate obstacles and better prepare to face them in the future (Hatthakijphong and Ting, 2019). Successful entrepreneurs can offer up-to-date information on trends and opportunities in the field of green entrepreneurship. This is crucial as the business world is constantly evolving, and students can benefit from first-hand advice and knowledge. Interaction

with successful entrepreneurs can stimulate creativity and innovation among students.

By hearing about sustainable solutions and innovative projects, students can begin to think more creatively and develop their own ideas for green ventures. Visits from successful entrepreneurs to classrooms can help students make valuable industry connections. These connections can be useful in the future when students are ready to start their own green ventures. Successful entrepreneurs can provide emotional support and mentoring to students, which can be instrumental in overcoming challenges that arise in the entrepreneurial process (Wathanakom et al., 2020). They can offer guidance and advice that students cannot get from textbooks or lectures. Green ventures focus on sustainability and environmental responsibility. Inspiring more students to get involved in these types of businesses can have a positive impact on the environment and society.

In evaluating entrepreneurship, one must consider the government's support for ecological entrepreneurship beyond institutional support. Governments should be proactive in adapting laws and incentivizing investment in green enterprises, which can be achieved by providing guaranteed loans at reasonable rates through state and bank initiatives to support new green entrepreneurs. Failing to consider this kind of support hinders promoting sustainable development and creating a more environmentally-friendly future.

Contrary to our initial expectations and in disagreement with the results of Maheshwari and Kha (2022); (Mozahem and Adlouni, 2021), who found a strong influence of academic support on entrepreneurial self-efficacy, our study does not yield evidence of such a relationship. This may be due to differences in the samples studied or in the measures used. Importantly, despite this lack of association, academic support is still relevant for the overall development of entrepreneurial skills, but its direct influence on entrepreneurial self-efficacy appears to be more tenuous. A crucial aspect of this study focuses on the relationship between extracurricular support and entrepreneurial self-efficacy. This relationship is consistent with the existing literature. Previous research, such as Pukkinen et al. (2023), has highlighted the importance of extracurricular support in the development of entrepreneurial self-efficacy. Our results support these findings and contribute to the understanding of how education and activities outside the classroom can influence individuals' confidence in their abilities to undertake green initiatives. Furthermore, this study also finds a significant connection between country support and entrepreneurial self-efficacy. This relationship aligns with previous research that has examined the impact of business environment and government policies on the

TABLE 3 Discriminant validity.

Variables	AS	CS	ESE	ES	GEI
AS	0.882				
CS	0.523	0.641			
ESE	0.618	0.561	0.866		
ES	0.864	0.488	0.645	0.906	
GEI	0.574	0.518	0.799	0.634	0.838

Sample, 163 questionnaires were completed. Academic support, AS; Country support, CS; Entrepreneurial self-efficacy, ESE; Extracurricular support, ES; Green entrepreneurship intention (GEI).

TABLE 4 Bootstrapping.

	Original sample	Original mean	Standard deviation	T Statistics	p-values	Decision about hypothesis
H1: AS → ESE	0.112	0.119	0.111	1.011	0.312	Reject
H2: ES → ESE	0.398	0.393	0.113	3.517	0.000	Accept
H3: CS → ESE	0.308	0.309	0.072	4.304	0.000	Accept
H4: ESE → GEI	0.799	0.801	0.037	21.471	0.000	Accept

Sample, 163 questionnaires were completed.

TABLE 5 Specific indirect effects.

	Original sample	Original mean	Standard deviation	T Statistics	p-values	Decision
H5: AS → ESE → GEI	0.090	0.095	0.089	1.011	0.312	Reject
H6: ES → ESE → GEI	0.318	0.315	0.093	3.419	0.001	Accept
H7: CS → ESE → GEI	0.246	0.248	0.061	4.034	0.000	Accept

Sample, 163 questionnaires were completed.

development of entrepreneurial self-efficacy (Bozhikin et al., 2019). The influence of the national context on entrepreneurial self-efficacy underscores the importance of creating an enabling environment for green entrepreneurship and providing resources and support to entrepreneurs.

This study identifies critical variables that significantly impact self-efficacy, the ultimate determinant of GEI. The evidence from students is slowly increasing, but the report from professors is minimal and provides another angle of measurement of the phenomenon since students can express their preferences. It is the professors who have a more excellent criterion and understanding of student actions that can better describe the needs of the students and the institution. Finally, they are the agents of change for the students and set the tone for learning. This research provides an instrument that can be used in future studies.

## Theoretical implications

Reports of green entrepreneurship intentions among students are increasing, although in Latin America, reports are still limited, and more research is needed. In the same sense, knowledge from teachers' point of view is an essential theoretical contribution since few studies evaluate this population; there are even some reports using a qualitative methodology for data analysis so that data evaluated in a multivariate way is also an essential contribution in this study. Our model could be tested in other realities to see which variables influence it.

## Practical implications

Environmental issues are government commitments such as those enshrined in the Sustainable Development Goals, such as climate change mitigation. For this, citizens who can be committed to actions that generate less pollution are needed, for which ecological economic activities are expected. Given this, green entrepreneurship emerges as an excellent alternative but requires the development of interest, knowledge and skills so that college students can successfully develop entrepreneurship. Many times the planning at the level of the Ministry of Health and even schools is not based on field research, so disruptive aspects are not included as a contribution from teachers. With these results, how curricular and extracurricular changes are made should be modified so that they can be oriented toward sustainability and based on the contribution of teachers who are close with students and know in detail their vision and desire for development.

## Conclusion

This study was oriented toward knowing the factors that affect the intention of green entrepreneurship, based on the theory of deliberate action and social cognitive theory. From the teachers' point of view, it was possible to show that the curricular content is minimal, with content that motivates and guides green entrepreneurship. The tested model showed that the effects are significant, suggesting that this mode can be considered for future planning that can finally give students more tools for developing enterprises aligned with the SDGs. Finally, the training of students with an ecological orientation allows these students, when going on to study at universities, to be more easily oriented to generate more significant learning in ecological issues, to develop environmental research and, mainly, to develop their own companies oriented toward environmental care.

This study, which focused solely on high-school students, provides valuable insights that can be applied to this group. However, to gain a deeper understanding, it would be beneficial to include another group of students to test the relationship between variables. Additionally, it would be interesting to replicate this study in other cities, particularly in Latin American countries, to identify the most influential variables. This would provide a more comprehensive understanding of the factors that influence the situation. Moving forward, it is crucial to evaluate the future development of green entrepreneurship to recognize the factors that have the greatest impact on entrepreneurs. By doing so, schools can emphasize the necessary changes among students to promote the development of green entrepreneurship.

## Limitations

Some limitations of the present study may include that teachers may have biased or incomplete perceptions about students' green entrepreneurship intention. Your evaluation may be affected by personal factors, biases, or your own limited knowledge of the topic. Likewise, teachers may not always have complete knowledge of students' extracurricular activities and projects outside the classroom, which could lead to an inaccurate assessment of their green entrepreneurship intention. This study only shows the evaluation of the teachers, leaving it pending to know what happens to the students in those schools. Although the number of teachers surveyed limits the generalization of the results, it initially allows us to have a vision from the teachers since the scientific literature shows very few reports from teachers regarding green entrepreneurship.



## Future research

Studies that include data from teachers and students are required to be able to cross-validate the data. Another study that is important to carry out is to compare the factors that are recognized in teachers at the school and university level; Likewise, between teachers from different regions in the same country (coast, mountains, jungle), as well as teachers between countries from different countries in the same geographical area. Some future studies may also consider analyzing the vision of school principals regarding green entrepreneurship of their students and teachers, knowing the factors, including the barriers. Success stories at the student level can also be investigated to understand and disseminate know-how. Finally, multidisciplinary and longitudinal studies are required to see how students and teachers evolve over time after participating in programs that train for the development of green entrepreneurship.

## Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## Ethics statement

The studies involving humans were approved by Acta 157 – Universidad Internacional Iberoamericana (June 10, 2022). The

studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

## Author contributions

RP-L, AA-R, and AQU: conceptualization, methodology, and data curation. RP-L, AA-R, AQU, and SD-A-A: software, validation, formal analysis, writing — original draft preparation, writing — review and editing, and visualization. RP-L: investigation and resources. All authors contributed to the article and approved the submitted version.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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