“Correlation between higher education support and future sustainable ecopreneurship drive among Javanese-centric students”

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CORRELATION BETWEEN HIGHER EDUCATION SUPPORT AND FUTURE SUSTAINABLE ECOPRENEURSHIP DRIVE AMONG JAVANESE-CENTRIC STUDENTS

Abstract

The environmental crisis has triggered green markets and eco-consciousness. Java is facing severe ecological stress. Ecopreneurship is then seen as a job creator and conservation tool. However, obstacles such as scarce resources remain among entrepreneurs. Universities play a crucial role in promoting eco-awareness and nurturing aspiring ecopreneurs. This study aims to analyze the role of three pillars of external support for education, government, and technology in self-efficacy and ecopreneurship intentions among Java Island students. This study involved 309 undergraduate (S1) students from state and private universities in Java in different specialization programs, based on the criteria, who attended and passed the entrepreneurship course program. Data analysis was conducted using Partial Least Squares-Structural Equation Modeling (PLS-SEM). The results showed that eco-educational support was found to significantly enhance ecopreneurial self-efficacy, aligning with prior research emphasizing the importance of recognition, curriculum, industry collaboration, and business ecosystem in fostering self-efficacy. Similarly, eco-educational support positively influences ecopreneurial intention, reinforcing the significance of educational initiatives in promoting green business ventures. Governmental assistance, including financial aid and pro-environment policies, was identified as crucial in bolstering both self-efficacy and intention for ecopreneurship. Moreover, the support of information technology positively affects self-efficacy and intention, indicating its role in facilitating access to resources and fostering confidence among aspiring ecopreneurs. The study also highlighted the mediating role of self-efficacy, suggesting its importance in bridging external support with entrepreneurial intentions. Overall, the findings underscore the importance of holistic support systems in cultivating a generation of environmentally conscious entrepreneurs.

Keywords higher education support, sustainable ecopreneurship, self-efficacy, Java

JEL Classification Q56, I23, O33, M13

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INTRODUCTION

The environmental crisis has triggered green markets, urging companies to prioritize ecological issues (Martínez Hernández et al., 2021). Consumers globally now prefer eco-friendly products, impacting their buying behavior. Sustainable businesses align with SDGs, notably SDGs 12 and 13 (Kerber et al., 2023). Indonesia, which focuses on SDGs, faces environmental and economic strains in Java (Widjajanti et al., 2022). Population growth and industries worsen ecological degradation. While studies suggest ecological enhancements, attention to the impact of business climate on ecosystems remains lacking (Yudawisastra et al., 2023). With over 150 million people, Java offers opportunities for sustainable business transformations in its dynamic entrepreneurial ecosystem.

Ecopreneurship is an innovative solution with the potential to create jobs and support environmental conservation (Rodríguez-García et al., 2019). Collaboration between governments, companies, and com-

munities can enhance this potential, making ecopreneurship a catalyst for sustainable economic growth and improving green ecosystems at regional and international levels (Guleria & Kaur, 2021). In sustainable business, ecopreneurship is crucial in achieving a sustainable economy and improving green ecosystems. Various countries have taken steps to encourage and support ecopreneurship in environmental protection efforts (Gunawan et al., 2021; Haldar, 2019; Kardos et al., 2019; Moon & Lee, 2021; Palmås & Lindberg, 2013). This initiative recognizes the potential of businesses in solving environmental challenges and achieving sustainability.

Several studies have explored the concept of ecopreneurship in a variety of contexts, such as adoption behavior (Alvarez-Risco, Mlodzianowska, García-Ibarra, et al., 2021; Shabeeb Ali et al., 2023; Yi, 2021), international trends (Cojoianu et al., 2023), market demand (Lotfi et al., 2018; Soomro et al., 2023), and factors influencing the growth of Ecopreneurship or Green Entrepreneurship (Gast et al., 2017; Karimi & Nabavi Chashmi, 2019; Zhao et al., 2021). However, there are shortcomings in research that examined student intentions towards ecopreneurship in developing Asian regions such as Indonesia with the urgency of environmental issues, and there is no research that includes evaluating the support of higher education institutions with technological advances and business knowledge. The role of government and technology in entrepreneurship studies is a crucial factor that supports the success of building a business. However, almost few highlight its existence in influencing the intention to create a student business.

1. LITERATURE REVIEW AND HYPOTHESES

Ecopreneurship is "an existential form of business conduct committed to environmental sustainability" (Alawamleh et al., 2023). The word "ecopreneurship" comes from the merger of two words: "eco" and "entrepreneur". Eco is taken from the phrase Ecological, which means science, the study about interrelationships between living things and their environment (Whitten et al., 1996). In contrast, Preneur comes from the word "entrepreneurship", which means creator, opportunity, and business manager (Ratten, 2023). This fusion reflects a growing trend toward integrating environmental concerns into entrepreneurial endeavors. Ecopreneurship emphasizes the development of sustainable business models aimed at both profit and planet. It aligns with the broader concept of corporate social responsibility and contributes to environmental conservation efforts.

Ecopreneurship encompasses eco-innovation in three main areas. Process innovation includes a focus on improving eco-efficiency through the use of environmentally friendly production technologies (Costea-Dunărinţu, 2016). Organizational innovation involves restructuring within the company to improve environmental management and work duties of employees (Vlasov et al., 2023). Product innovation includes creating new or improved products and services that are more sustainable, such as renewable energy technologies (Wibowo et al., 2019). Each form of eco-innovation mentioned reflects a different aspect of how ecopreneurship can contribute to addressing environmental challenges. Process innovation targets resource efficiency, organizational innovation focuses on improving internal environmental management systems, while product innovation aims to create marketable sustainable solutions.

Ecopreneurship aims to shift business focus from pure profit to environmental sustainability (Rodríguez-García et al., 2019). This involves implementing four key principles: reduce resource consumption and toxic materials, reuse resources efficiently, recycle waste into valuable goods, and redesign products for innovative benefits (Putri et al., 2019). These principles foster sustainable practices, minimize environmental harm, and enhance resource efficiency. The approach aligned with long-term viability by promoting environmentally friendly market, industry, and societal changes. Analyzing the literature, it is proven that ecopreneurship emphasizes not only profit but also ecological responsibility, reflecting a broader shift toward sustainable business models. By adhering to these principles, ecopreneurs contribute to mitigating environmental degradation while

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fostering economic growth. This underlines the importance of integrating environmental considerations into business strategies, highlighting the role of entrepreneurs in shaping a more sustainable future.

Entrepreneurship in developing countries supports creativity and economic growth. In the context of entrepreneurship education, entrepreneurial intentions are triggered by knowledge and skills gained through education (Lechuga Sancho et al., 2022). The symbiosis between entrepreneurship and education creates an environment for individual development and prepares society for global challenges (Shofwan et al., 2023). Close collaboration between the education sector and business is essential in creating solutions. Higher education fosters entrepreneurial interest, aids understanding of business concepts, and educational support enhances students' knowledge of business ethics, citizenship, and social responsibility (Smolka et al., 2023). Higher education also provides critical networks and resources to grow a business (Abou-Warda, 2016).

In recent studies on entrepreneurial intentions, the role of higher education has become increasingly important. The business curriculum teaches business principles such as resource management, environmentally friendly technology, and social justice (Pergelova et al., 2023; Roslan et al., 2022; Tsaknis et al., 2024). In addition, Shu et al. (2020) connected college innovation and research programs that can produce sustainable solutions (Shu et al., 2020). With access to laboratories, research facilities, and academic networks, students and researchers can collaborate to create products and services (Mei & Symaco, 2022). Several studies found that higher education supports increasing student self-efficacy regarding entrepreneurship through recognition, entrepreneurship curriculum, industry collaboration, and support for the business ecosystem of the Campus area (Li et al., 2023; Roy, 2023; Yi, 2021).

Government support plays an essential role in encouraging entrepreneurial activities. This support includes policies, programs, and initiatives to facilitate and encourage entrepreneurship (Derlukiewicz et al., 2021). This support can take many forms, such as financial aid, regulatory frameworks, tax incentives, business development services, and training programs (Ferraris et al., 2020; Wei, 2022). Several studies have found the impact of the country's definitive entrepreneurship empowerment program on boosting the creative economy. The UK Government's Local Enterprise Growth Initiative (LEGI) seeks to encourage regeneration in underdeveloped areas of the UK through enterprise and entrepreneurship (Einiö & Overman, 2020). A study conducted in BRICS countries found that significant support from states or local governments positively affects corporate growth and optimism (Rani & Kumar, 2022). A study conducted in Rwanda found that entrepreneurship training, access to credit, technology-based online social media, and market access effectively influenced the growth of MSEs in Kigali City (Skica & Rodzinka, 2021). Thus, there are assumptions of government support, such as incentives and pro-environment policies, increasing awareness, and intentions of ecopreneurship. This belief stems from the hope that the government's push can stimulate individuals' interest in adopting more sustainable and environmentally responsible business models.

Digital technology supports entrepreneurship, encouraging entrepreneurial awareness and intent (Leong et al., 2022). With the advancement of technology, the opportunities for individuals and businesses to connect and thrive are becoming ever more expansive. Digital platforms such as social media, e-commerce, and online learning platforms provide a space for sharing knowledge, ideas, and entrepreneurial inspiration (Singh et al., 2023). They allow individuals to access resources, learn from the experiences of others, and network with potential entrepreneurs and investors. In addition, digital technology also facilitates access to a broader market (Gu et al., 2023). By using e-commerce, small and medium-sized businesses can reach consumers worldwide, reducing geographical restrictions (Zani, 2021). Digital platforms also make it easy to track business performance, analyze customer data, and adjust business strategies based on accurate data (Yacob et al., 2021). The use of technology in entrepreneurship also affects how businesses promote and sell their products or services (Han & Li, 2020). Digital marketing,

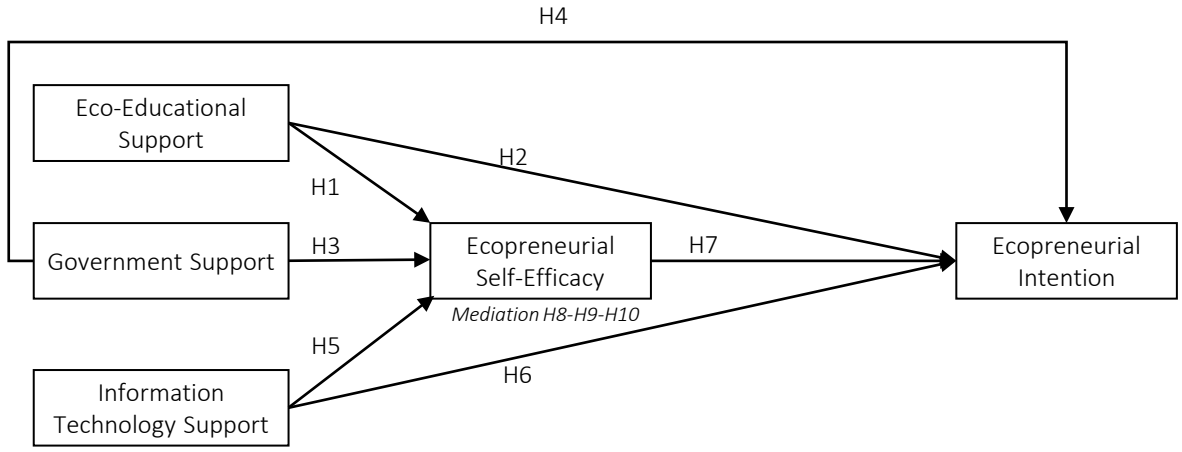

Figure 1. Research model

such as social media and email marketing, effectively reaches a broader audience and influences consumer awareness about a product or service. Caisar Darma et al. (2020) specifically highlighted the role of FinTech progress as more accessible and faster access to funding that can increase the intention of prospective entrepreneurs to build new MSME businesses (Caisar Darma et al., 2020).

According to Kisubi et al. (2021), self-efficacy in entrepreneurship is related to a person's belief in his ability to act (Kisubi et al., 2021). Entrepreneurial confidence is also influenced by opportunities to acquire that confidence through experience and role modeling (Gielnik et al., 2020). With this definition, entrepreneurial self-efficacy includes an individual's belief in their ability to do entrepreneurship, which certain factors can influence. Given that the process of entrepreneurship is not an easy thing, the existence of entrepreneurial self-efficacy is a necessity. Entrepreneurial self-efficacy is believed to drive success in the business world (Dias et al., 2022). In several entrepreneurial studies, self-efficacy played an essential role in mediating the influence of entrepreneurial knowledge, education level, family environment, technology support, and work experience on entrepreneurial interest (Alarjani et al., 2020; López-Muñoz et al., 2023; Yousaf et al., 2021). Through this mediation, self-efficacy helps link experience and role modeling with entrepreneurial success. Increased self-efficacy can motivate individuals to overcome challenges and take the risks necessary to start a business (Wang et al., 2023). Thus, self-efficacy forms a bridge between self-confidence and entrepreneurial success, making it a mediating variable that plays a central role in understanding psychological dynamics in entrepreneurship.

Furthermore, based on the study of ecopreneurship and the construction of research hypotheses, (1) there are quite a lot of entrepreneurship modeling studies in various contexts, (2) the perspective of supporting external conditions in ecopreneurship or green entrepreneurship is still minimally discussed, and (3) there are no ecopreneurship or green entrepreneurship studies focusing on the Indonesian region, especially Java, where complex environmental problems and opportunities for large-scale entrepreneurial mobility exist. This study aims to analyze the role of three pillars of external support for education, government, and technology in self-efficacy and ecopreneurship intentions for Java Island students or Javacentric Students using PLS-SEM modeling.

The following hypotheses are tested to support the objectives of this study (see Figure 1):

H1: Eco-Educational Support has a significant effect on ecopreneurs' self-efficacy.

H2: Eco-Educational Support has a considerable effect on ecopreneurs' intentions.

H3: Government Support has a substantial impact on ecopreneurs' self-efficacy.

H4: Government Support has a significant impact on ecopreneurs' intentions.

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H5: Information Technology Support has a substantial effect on ecopreneurs' self-efficacy.

H6: Information Technology Support has a considerable effect on ecopreneurs' intentions.

H7: Ecopreneurial Self-Efficacy has a considerable impact on ecopreneurs' intentions.

H8: Ecopreneurial Self-Efficacy mediates the relationship between eco-educational support and ecopreneurship intention.

H9: Ecopreneurial Self-Efficacy mediates the relationship between government support and ecopreneurship intention.

H10: Ecopreneurial Self-Efficacy mediates the relationship between information technology support and ecopreneurship intention.

2. RESEARCH METHODOLOGY

This study adopted a quantitative approach with the target analysis of the unit of students studying at state universities in Java Island. As of December 2023, 54.4% of all universities in Indonesia are located in Java. This includes both public and private institutions. Regarding quality, it turned out that the Top 10 QS Ranking of Indonesia's best universities is on Java Island. Regarding entrepreneurship, it was also shown that the Entrepreneurial Participation Rate (TPW) in Java reached 3.71%, higher than the national average of 3.16%. West Java has the highest TPW (4.03%), followed by East Java (3.87%) and Central Java (3.67%).

2.1. Variable and data collection

This study relied on primary and secondary data sources. Primary data are information collected directly from undergraduate students at universities in Java Island through filling out questionnaires. Meanwhile, secondary data are obtained indirectly or through research in journals, books, statistical data, and the Internet. This study proposed five variables consisting of Eco-education Support with 11 indicators (Alvarez-Risco, Mlodzianowska, Zamora-Ramos, et al., 2021; Roy, 2023; Shabeeb Ali et al., 2023), Government Support with six indicators (Shabeeb Ali et al., 2023; Yang et al., 2021), Information Technology Support with four indicators (Purwati et al., 2022; Shabeeb Ali et al., 2023), Ecopreneurial Self-Efficacy with four indicators (Gielnik et al., 2020; Hasan et al., 2020), and Ecopreneurial Intention with nine indicators (Alvarez-Risco, Mlodzianowska, Zamora-Ramos, et al., 2021; Shabeeb Ali et al., 2023). Research instruments were created using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

According to the latest data on the number of undergraduate, master, and doctoral students in higher education in Indonesia, it is around 7.6 million students. It consists of approximately 3.2 million students on public campuses and 4.4 million students on private campuses. Ranks of 1 to 6 provinces with the highest number of students are controlled by Java (Table 1) (Rosser, 2023). With this condition, the snowball sampling pulling technique was chosen. The criteria set are students who have taken and passed the entrepreneurship course as a mandatory learning program for university students in Indonesia.

According to Hair et al. (2018), the minimum sample to be achieved must be five times the total indicator (Hair et al., 2018); with a total of 34 indicators, a minimum of 170 samples must be achieved. The research team carried out the questionnaire distribution process online using social media dissemination. The respondents were asked to fill out the questionnaire online via Google Forms.

The two-month data collection process resulted in 309 valid respondents with tabulations of respondent characteristics (see Table 2). Most respondents were women (71%) with a dominant age between 18 and 30 years. The most prominent scientific family is Philosophy and Educational Administration (47%), followed by Language and Literature (2%). Most respondents have no entrepreneurial experience (43%) but have sufficient knowledge about eco-friendly products (58%). Resources for ecopreneurship, such as access to knowledge and information (50%), are more available than business capital or consultants (11% and 9%, respectively). Despite this, most of the respondents (30%) experienced limited resources for environmentally friendly entrepreneurship.

Table 1. Characteristics of respondents

Characteristic	Sum	Percentage
Gender		
Man	90	29%
Woman	219	71%
Age		
< 18 years old	4	1%
18-20 Years	197	64%
21-30 Years	108	35%
Scientific Family		
Educational Philosophy and Administration	146	47%
Language and Literature	8	2%
Economics and Business	43	14%
Social and Political Sciences	33	11%
Technology, Technique, and Consistency	42	14%
Mathematics and Natural Sciences	18	6%
Art and Design	10	3%
Sports and Health	9	3%
Entrepreneurial Experience		
Have No Experience	132	43%
< 1 Year	127	41%
1-3 Years	41	13%
> 3 Years	9	3%
Eco-Friendly Product Knowledge		
Very Familiar	49	16%
Quite Familiar	179	58%
A little familiar	81	26%
Ecopreneurship Resource Availability		
Access to business capital available	35	11%
Access to knowledge and information available	155	50%
Ecopreneurship consultant access is available	26	9%
Not Available	93	30%

2.2. PLS-SEM analysis

This study chose the Partial Least Square-Structural Equation Modelling (PLS-SEM) analysis technique with the SmartPLS Version 3 analysis tool. Partial Least Squares-Structural Equation Modeling (PLS-SEM) is a method that allows the estimation of relationships between complex cause-and-effect variables in path models with hidden variables (Becker et al., 2023). The main advantage of PLS-SEM lies in its ability to adapt the model to the data, maximize variance explanation, and estimate the parameters of the general factor model consistently (Sarstedt et al., 2022). Despite criticisms of claims that PLS-SEM can be used with tiny sample sizes, the method is still considered superior compared to covariance-based structural models when the nature of the data is unknown. PLS-SEM also uses a different component-based estimation approach, which allows parameter estimation of standard factor models through a consistent approach (Sarstedt et al., 2020).

3. RESULTS AND DISCUSSION

Various tests have been conducted to assess the study's validity and reliability. Convergent validity is checked to explore outer loadings and average variance extracted (AVE) (Sarstedt et al., 2022). The reliability of the study was checked through the Cronbach Alpha (CA) and Composite Reliability (CR) values (Memon et al., 2021). Findings regarding convergent validity are presented in Table 2. Most items included in the analysis showed a payload of 0.7, which aligned with recommended guidelines (Hair et al., 2018). As for the AVE threshold, all variables exceeded 0.5, and CA-CR exceeded 0.7, consistent with the policies presented by Afthanorhan et al. (2020). From the results of the table, it can be summarized that eco-educational support factors, such as college encouragement and provision of resources, showed high outer loadings ranging from 0.788 to 0.857, indicating strong correlations with the construct. Similarly, government support factors exhibited high outer loadings, suggesting a significant influence on ecopreneurial intentions. Variables of information technology support also demonstrate substantial outer loadings, emphasizing the importance of technological infrastructure in promoting ecopreneurship. Ecopreneurial self-efficacy indicators displayed strong correlations, implying students' confidence in their ability to engage in environmentally sustainable business ventures. Lastly, ecopreneurial intention factors manifested high outer loadings, indicating students' strong intentions to pursue green entrepreneurship despite potential risks. Overall, the findings underlined the multifaceted nature of ecopreneurship and highlight the importance of supportive environments, government policies, and personal efficacy in foster

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Table 2. Convergent validity and reliability test results

Variable	Outer Loadings	AVE	CA	CR
Eco-Educational Support				
My college encourages awareness of Ecopreneurship as a viable career choice	0.798	0.692	0.955	0.961
My college motivates students to start new businesses focused on environmental sustainability according to their interests	0.828			
My college provides fundamental recommendations and strategies for the establishment of new businesses based on Ecopreneurship	0.846			
My college provides knowledge on Ecopreneurship through sub-curricula that focus on sustainable entrepreneurship	0.788			
My college offers group-based entrepreneurship projects that prioritize environmental sustainability	0.834			
My college is committed to encouraging Ecopreneurship-based education through its vision and mission	0.857			
My college has an Ecopreneurship center or institution that provides guidance and mentoring for students interested in starting a sustainable business	0.838			
My college provides financial support, such as scholarships or research funds, to support the development of student Ecopreneurship-based businesses	0.825			
My college conducts seminars, workshops, and other events that focus on developing Ecopreneurship	0.831			
My college has partnerships with industry players and ecopreneurships that give students practical insights into sustainable business	0.854			
My college encourages student participation in business competitions and events that promote creativity and innovation in the context of Ecopreneurship	0.852			
Government Support				
My country provides favorable fiscal and tax incentives for green businesses	0.867	0.803	0.951	0.961
My country has policies that encourage the growth of green economy sectors, such as renewable energy and waste management	0.891			
My country provides special financing or student entrepreneurship grant programs focused on environmental solutions	0.915			
My country provides special education and training programs to develop skills in Ecopreneurship	0.918			
My country provides easy access to finance for environment-based businesses	0.907			
My country conducts an active promotional campaign to raise public awareness of the importance of Ecopreneurship	0.878			
Information Technology Support				
My college provides state-of-the-art technology facilities and infrastructure to support innovation and business development	0.892	0.782	0.907	0.935
My college, through a business incubator, provides access to advanced equipment and technology for product development	0.873			
My college conducts training programs and workshops aimed at improving technological literacy and digital skills	0.860			
My college encourages collaborative IT teams and Entrepreneurship Teams to produce innovative solutions that support entrepreneurship	0.912			
Ecopreneurial Self Efficacy				
I can run and maintain an environmentally sustainable business	0.895	0.790	0.911	0.938
I have adequate understanding to develop an environmentally friendly business	0.888			
I have sufficient skills to develop a business focused on environmental sustainability	0.911			
I am confident that in the future, I will succeed in developing green businesses successfully	0.861			
Ecopreneurial Intention				
I plan to develop a business focused on ecological solutions in my community	0.862	0.778	0.964	0.969
I encourage my colleagues to start businesses that can address environmental issues	0.865			
My goal in the future is to give priority to ecological benefits over financial benefits	0.880			
If I am given enough opportunities and resources, I will commit to operating sustainably	0.901			
I am very serious in my desire to become a green entrepreneur	0.904			
I will try my best to start and run my green venture	0.918			
I have a solid determination to start an ecological venture one day	0.893			
I propose to implement and take action in the management of my ecological undertaking	0.867			
Although the job at the company is safer, I remain committed to taking risks in green business	0.845			

Table 3. Fornell-Larcker test results

	ES	ECI	ECS	GS	ITS
ES	0,832				
ECI	0,623	0,882			
ECS	0,658	0,794	0,889		
GS	0,708	0,562	0,593	0,896	
ITS	0,744	0,613	0,681	0,706	0,885

Note: ES = Eco-Educational Support; ECI = Ecopreneurial Intention; ECS = Ecopreneurial Self-Efficacy; GS = Government Support; ITS = Information Technology Support.

After confirming that the validity converges within the accepted range, a discriminant validity check is carried out. The analysis used the Fornell-Larcker method and heterotrait-monotrait (HTMT) to test the validity of the discriminant (Henseler et al., 2015). The results of the Fornell-Larcker analysis (see Table 3) show that all constructs demonstrate acceptable discriminant validity. The table shows that the square root value of AVE (presented diagonally) is greater than the correlation between constructions (represented outside the diagonal) for all constructions.

HTMT also confirmed the validity of the discriminant. The HTMT values in Table 4 reflect the results. Under the guidelines, the positive correlation value cannot exceed 0.90 (Roemer et al., 2021). These findings are consistent with those criteria, confirming the validity of the discrimination.

PLS-SEM tested the model; all variables are included in the Bootstrapping procedure (Kock, 2018). If the empirical t-value exceeds the critical value of 1.96 or if the p-value falls below 0.05, the hypothesis is deemed statistically significant with a confidence level of 95% (Hair et al., 2018). The results of hypothesis testing in Table 5 indicate that all tested relationships are statistically significant. Eco-Education Support significantly and positively affects Ecopreneurial Self-Efficacy (p = 0.000, t = 3.506) and Ecopreneurial Intention (p = 0.000, t = 2.797), thus supporting *H1* and *H2*. Similarly, Government Support (p = 0.000, t = 1.579 for Self-Efficacy; p = 0.000, t = 0.909 for Intention) and Information Technology Support (p = 0.000, t = 5.157 for Self-Efficacy; p = 0.000, t = 0.405 for Intention) have significant positive effects, confirming *H3* to *H6*. Finally, Ecopreneurial Self-Efficacy significantly influences Ecopreneurial Intention (p = 0.000, t = 12.526), supporting *H7*. Testing the mediation hypothesis revealed a positive relationship between Eco-Educational Support, Government Support, Information Technology Support, and Ecopreneurial Intention. Ecopreneurial Self-Efficacy served as a significant mediator, as showed by low p-values (0.001, 0.000, 0.000). Therefore, the hypotheses of self-efficacy mediation (*H8* to *H10*) are accepted, indicating that self-efficacy plays a crucial role in connecting eco-education, government, and information technology support to foster ecopreneurship.

R-squared, also known as the coefficient of determination, is a statistical measure that shows how much variation the dependent variable explains by the independent variable in a regression model. R-squared values range from 0 to 1 and are usually expressed as a percentage from 0% to 100%. An R-squared value of 100% indicates that all movements of the dependent variable are fully explained by the movements of the independent variable (Sarstedt et al., 2022). Chin (1998) divided

Table 4. HTMT test results

	ES	ECI	ECS	GS	ITS
ES					
ECI	0,647				
ECS	0,702	0,743			
GS	0,742	0,586	0,636		
ITS	0,797	0,652	0,747	0,760	

Note: ES = Eco-Educational Support; ECI = Ecopreneurial Intention; ECS = Ecopreneurial Self-Efficacy; GS = Government Support; ITS = Information Technology Support.

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Table 5. Hypothesis test results

Hypothesis	Path Coefficient	t-test	p-value	Decision	R-Square
Eco-Education Support → Ecopreneurial Self-Efficacy	0.290	3.506	0.000	Accepted	0.721
Eco-Education Support → Ecopreneurial Intention	0.225	2.797	0.000	Accepted	0.651
Government Support → Ecopreneurial Self-Efficacy	0.118	1.579	0.000	Accepted	0.721
Government Support → Ecopreneurial Intention	0.065	0.909	0.000	Accepted	0.651
Information Technology Support → Ecopreneurial Self-Efficacy	0.382	5.157	0.000	Accepted	0.721
Information Technology Support → Ecopreneurial Intention	0.029	0.405	0.000	Accepted	0.651
Ecopreneurial Self-Efficacy → Ecopreneurial Intention	0.654	12.526	0.000	Accepted	0.651
Eco-Educational Support Ecopreneurial Self-Efficacy → Ecopreneurial Intention	0.189	3.433	0.001	Accepted	
Government Support → Ecopreneurial Self-Efficacy → Ecopreneurial Intention	0.077	1.562	0.000	Accepted	
Information Technology Support → Ecopreneurial Self-Efficacy → Ecopreneurial Intention	0.250	4.517	0.000	Accepted	

the R-Square value into three categories: substantial if it exceeds 0.67, moderate if between 0.33 to less than 0.67, and weak if between 0.19 to less than 0.33 (Streukens & Leroi-Werelds, 2016). The results of the R-Square test (Table 5) showed a significant relationship between eco-education, government, and information technology support with self-efficacy and ecopreneurial intentions. The R-Square coefficients for all such relationships range from 0.651 to 0.721, indicating the substantial and moderate strength of the model relationships.

4. DISCUSSION

This study explored external support for self-efficacy and ecopreneurship intention among Java Island students in the most populated area in Indonesia. Empirical studies using PLS-SEM analysis show the effect of eco-educational backing has a significant positive relationship with ecopreneurial self-efficacy. These results aligned with previous studies that found recognition, entrepreneurship curriculum, industry collaboration, and business ecosystem support in increasing student ecopreneurs' self-efficacy (Li et al., 2023; Roy, 2023; Yi, 2021). This significant positive relationship showed an increase in students' self-efficacy in building environmentally friendly businesses in the future when they receive support from training, mentoring, resources, and other learning activities that emphasize ecological and sustainability values. This is important because increased awareness of environmental issues encourages interest and engagement in entrepreneurship focused on ecological solutions.

When examining the direct relationship between eco-educational support and ecopreneurial intention, positive significance was found between both variables. These findings are consistent with previous research, highlighting the role of educational support in increasing intent to build green businesses (Mei & Symaco, 2022). This means that college programs and initiatives that provide education and support towards sustainable entrepreneurship enhance individuals' knowledge and skills and reinforce their intentions to take practical action in setting up sustainable businesses. From a managerial perspective, this demonstrates the importance of investing in education and supporting sustainable entrepreneurship to enhance innovation and sustainable economic growth.

The role of the government was identified as playing a role in increasing ecopreneurial self-efficacy and student ecopreneurship intentions. These results support previous studies that found the impact of access to financial assistance, pro-environmental business policies, and enhanced green business capabilities can increase awareness and sustainable business intent in a range of business sector scenarios (Einiö & Overman, 2020; Rani & Kumar, 2022; Skica & Rodzinka, 2021). The support provided by the government, such as financial aid and pro-environment policies, creates a supportive environment for students who want to run sustainable businesses. Access to financial assistance allows students to overcome initial financial barriers to starting their business. At the same time, pro-environment policies provide a clear framework and incentives for them to adopt environmentally friendly business practices. Government support can raise students' aware-

ness of the importance of sustainability and encourage them to contribute through green businesses. Through this support, the government can create a supportive environment for young entrepreneurs to run eco-friendly businesses and inspire awareness about the importance of sustainability among students. Therefore, government support can raise awareness of environmental issues and encourage students to take an active role in developing a more sustainable society through their businesses.

Further research findings revealed that information technology support significantly positively affects students' ecopreneurial self-efficacy and ecopreneurship intentions. This result is consistent with the findings of Singh et al. (2021) in the creation of knowledge, ideas, and inspiration for prospective entrepreneurs to build a business and Caisar Darma et al.'s (2020) study on the existence of FinTech to open access to funding in strengthening the intention to establish an MSME business. This illustrates the situation when students feel supported by information technology in the context of ecopreneurship, they tend to feel more capable and confident in their ability to run an environmentally friendly business. The current technological civilization, which is closed to the young generation, provides better access to resources, information, and inspiring connections with ecopreneurship. It can increase students' confidence in facing the challenges of starting a business that focuses on environmental sustainability. In addition, more accessible access to information technology can also strengthen their intention to apply ecopreneurship principles in their business practices because they feel more prepared and supported.

Ecopreneurial self-efficacy has been tested positively and has had a significant positive effect on student intentions in ecopreneurship. Ethical students feel confident in their ability to become entrepreneurs who care about the environment, and they tend to be more motivated to run a business that considers environmental aspects. These results support the studies by Dias et al. (2022) and Wang et al. (2023), who believe in the role of self-efficacy in strengthening entrepreneurs' intentions to build businesses. Thus, success in developing ecopreneurial self-efficacy can be vital in encouraging student interest and involvement in ecopreneurship. This understanding is essential because educational, government, and technological advances to increase students' confidence in their ability to become environmentally conscious entrepreneurs can be an effective strategy for promoting sustainable business practices among students.

Regarding the mediation relationship, researchers found self-efficacy could bridge education, government, and information technology support with ecopreneurs' intentions. These results support the results of previous research that found the role of self-efficacy as mediation in capabilities or external support in building a business (Alarjani et al., 2020; López-Muñoz et al., 2023; Yousaf et al., 2021). This indicates that when students can achieve their ecopreneurial goals, with support from education, government, and information, technology becomes more influential in shaping their intention to engage in environmentally friendly entrepreneurship. From an entrepreneurial science perspective, these findings provide important insights. This suggests some additions to support from the external environment, such as education and government policies, and internal factors, such as self-confidence, also play a crucial role in shaping an individual's intention to become a sustainable entrepreneur. This study underscores the importance of developing self-efficacy in supporting students' intentions to engage in entrepreneurship that focuses on environmental sustainability.

CONCLUSION

This study explored external support for students' self-efficacy and ecopreneurship intentions in Java, Indonesia's most populous region. The analysis showed the positive influence of eco-educational support on ecopreneurial self-efficacy, affirming the importance of training and mentoring in building an environmentally friendly business. Government support, such as financial assistance and pro-environment policies, also raises awareness and sustainable business intentions. In addition, information technology support has increased students' confidence in running environmentally friendly businesses. Self-efficacy mediated the relationship between educational, government, and technology support with

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the intention of ecopreneurship, highlighting the importance of self-confidence development in encouraging student engagement in sustainable entrepreneurship.

The theoretical implications of the study highlighted the critical role of external support in developing ecopreneurship among students in Java, Indonesia's most populous region. The findings confirmed that eco-educational, government, and technology support are essential in increasing ecopreneurial self-efficacy and intentions. This shows that investments in education, pro-environment policies, and information technology increased knowledge and skills in strengthening individual intentions to start sustainable businesses. These findings provided an understanding of the importance of internal factors such as self-efficacy as mediators in shaping an individual's intention to engage in sustainable entrepreneurship, underlining the importance of developing self-confidence in supporting sustainable business practices.

The practical implication of this study is the importance of external support in shaping the intentions and self-efficacy of Java Island students in running environmentally friendly businesses. The findings highlighted the need for ecological education, industry collaboration, and government support in raising students' awareness and ability to become ecopreneurs. Investing in educational programs and pro-environment policies can help create a supportive environment for students interested in sustainable business. In addition, better access to information technology can also strengthen students' confidence in running businesses that focus on environmental sustainability.

The study acknowledged two limitations that should be aware of. The study was limited to university students in Java, so the results may not fully reflect conditions outside the region. Limitations in primary data access from respondents can affect the depth of analysis. Future studies need to be expanded to compare external support conditions and self-efficacy between Java and other regions in Indonesia for a more comprehensive understanding. Longitudinal studies are required to track changes in self-efficacy and ecopreneurship intentions over time. A comparative study of external support and ecopreneurship intentions of students in Indonesia and other countries is needed to understand the global cultural and policy differences that affect the phenomenon.

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