Green Techno-entrepreneurship: The Role of University Environment and Support, Prior Entrepreneurial Exposure and Technology Readiness

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Abstract. The problem of unemployment in Indonesia is still a matter that must be considered, especially unemployment from university graduates. For this reason, this study aims to analyze and build a Green Techno-entrepreneurship model for university students in Indonesia with the approach of University Environment and Support, Prior entrepreneurial exposure and Technology Readiness. The research sample was 500 students from Sumatera Island, Indonesia. Data analysis using Structural Equation Modeling with AMOS. This study indicated that: 1). university support and environment in terms of educational support have a significant positive effect on student intention on green techno-entrepreneurship, 2). Educational support does not significantly affect entrepreneurial technology readiness, 3). Targeted non-cognitive support, it has a significant positive effect on entrepreneurial technology readiness and intention on green technoentrepreneurship. 4). Prior Entrepreneurial Exposure also has a significant positive effect on entrepreneurial technology readiness but has no significant effect on intention on green techno-entrepreneurship. 5). Entrepreneurial technology readiness was able to mediate the effect of targeted non-cognitive support and Prior Entrepreneurial Exposure toward intentions on green techno-entrepreneurship but was unable to mediate the effect of educational support. This study has answered how important University environmental and Support, Prior entrepreneurial exposure in encouraging students to have an intention in Green Technoentrepreneurship. In addition, the role of technology readiness in this research is able to encourage student interest in Green Techno-entrepreneurship due to the support of technological infrastructure, experience in using technology and learning technology provided by the university.

Keywords: club activities, nursing student, career attitude maturity, academic self-efficacy

1. Introduction

During the Industrial Revolution 4.0 era, technological developments require all aspects of human resources to win labor competition. The Indonesia Statistics (BPS) recorded that open unemployment in Indonesia reached 8,746,008 people in February 2021 (Indonesia Statistics, 2021). This rate has increased by 26.3% compared to the previous year. Therefore, in order to overcome this problem, education in Indonesia needs to prepare the younger generation to develop their potential through entrepreneurship. With the current technological developments, entrepreneurship needs to be supported by knowledge and skills in using the latest technology. In this case, tech-no-entrepreneurship is defined as an entrepreneur who runs his business with skills in science and technology (Anggadwita, 2021). The development of several business innovation center and business incubators in technology at universities is a positive effort to build techno-entrepreneurship in Indonesia. In addition to technology, entrepreneurial activities are needed to solve environmental or social problems through creative and innovative ideas that positively impact the environment and social life of the community or known as Green Entrepreneurship (Archana, 2022). For this reason, universities must be able to create a strategy to produce graduates who are competitive in the digital era through Green Technoentrepreneurship concept.

Green entrepreneurship is a series of activities to solve environmental or social problems through innovative and creative ideas that positively impact the environment and social life of the community and provide benefits for corporate organizations (Batista, 2016). A business that applies the Green Entrepreneurship Concept is expected to impact 5 things, including People, Planet, Practice, Prudence, and Profit. In this case, green techno-entrepreneurship for students aims to develop students' interest in becoming technology-based entrepreneurs by paying attention to the "green business" aspect (Bell, 2020).

The creation of Green Techno-entrepreneurship graduates needs the role of University Environment and Support in order to shape the student characteristics in decision-making courage and risk and competence in scientific products that are useful for the environment and society. The concept of Green University Environment and Support consists of Educational Support, which is related to how universities create knowledge that can encourage students to have concern for the environment and Targeted non-cognitive Support. Educational support in the form of entrepreneurship courses, seminars, guest lectures by leading entrepreneurs, simulation games, and other methods can support and shape entrepreneurial ambitions among students.

Targeted non-cognitive support refers to the provision of initial funds or facilities for the incubation of the entrepreneurial process. Along with the traditional role of universities in terms of knowledge generation with the changing landscape in business and socio-economics (Blimpo, 2021; Cortés, 2021), it is hoped that universities could also play a key role in transferring knowledge to the business world for commercialization and the good of society (Bodea, 2015; Chakrabarty et al., 2021). This will further expand the scope of the Higher Education from the generation of traditional knowledge to a more entrepreneurial eco-system enabler. Several studies found that universities still have weak support in providing learning needs and facilities for entrepreneurship development (Colichi, 2021;Cortés, 2021;Dolinar, 2021). The role of universities in building an ecosystem that can encourage students to make entrepreneurship as an alternative career and equip students with the ability to manage an industry is very important. Research shows that Educational Support significantly and positively impacts students' desire to become technology entrepreneurs. Other research results also show that targeting non-cognitive aspect is also one of the motivating factors for students to enter the business world after they graduate from college (Dolinar, 2021). However, this is contrary to research conducted previously (Fernández, 2021) where the University's support in entrepreneurship learning alone has not been able to encourage students to be interested in pursuing a career as an entrepreneur.

In addition to the university's support, experience factor also plays an important role in determining a person's actions. In this case, Prior Entrepreneurial Exposure which is the entrepreneurial experience of individuals or other people is the one that plays an important role in the growing interest in entrepreneurship (Golovina, 2017). Prior Entrepreneurial Exposure is defined as one's own experience in managing a business. Several studies have stated that entrepreneurial experience does not significantly affect the formation of entrepreneurial interest (Al-Harthi, 2017; Ghazali, 2021).

From several research literatures that examine the relationship between university Environment and Support and prior entrepreneurial exposure which found controversy or differences in research results, to overcome the gaps this study uses the technology readiness variable to fill in the gap also as the originality of this study. Technological developments require all aspects to be aware of all the changes that exist. The generation most supportive of technological change due to higher adaptability is the millennial generation and generation Z (Kim & Lee, 2019; Safaei, 2020).These generations are currently studying at university, so that their ability to use technology can be a provision for them to have the intention of green technoentrepreneurship. Previous research has shown technology readiness to be an important factor that significantly affects a person's interest in becoming a technology entrepreneur. Researchers also found the mediating role of readiness technology in supporting entrepreneurial intentions (Jixiang, 2019). From the phenomena and gaps of previous research in examining student entrepreneurship models, this study develops a Green Techno-entrepreneurship model to prepare students who are competitive and ready to join the business world.

2. Literature Review

2.1. Student and green techno-entrepreneurship

One element of society that is expected to compete in the future in the business sector is the younger generation, especially students. Students who indeed get a lot of input in the academic environment in the daily teaching and learning process, are certainly potential assets of the millennial generation to compete successfully in the business world. One of the strategic sectors supporting the economic growth is entrepreneurship (Sheppard, 2015). There are entrepreneurs in various developments in this sector from early/ novice entrepreneurs to independent entrepreneurs. Entrepreneurship contributes to the creation of new jobs, economic expansion, and becomes one of the components in supporting a healthy business environment.

Green Techno-entrepreneurship is a series of activities that solve environmental or social problems through innovative creative ideas that positively affect the environment and social life of the community while providing benefits for the company organization (Hameed, 2021). A business that applies the Green Entrepreneurship Concept is expected to have an impact on 5 things, including People, Planet, Practice, Prudence, and Profit. In this case, Green techno-entrepreneurship for students aims to develop students' interest in becoming technology-based entrepreneurs by paying attention to the "green business" aspect (Alvarez-Risco, 2021).

2.2. University environment and support

Providing educational support is one of the main functions of Higher Education which is expected to be able to build general awareness and provide the skills needed to become an entrepreneur (Gómez, 2022). Educational support in the form of entrepreneurship courses, seminars, guest lectures by leading entrepreneurs, simulation games, and other methods can support and shape entrepreneurial ambitions among students (Al-Jubari, 2019). Several studies show that the perception of educational support has a positive effect on student entrepreneurial interest (Al-Jubari, 2019; Alakaleek, 2019). Along with general education support, Universities can also provide more targeted and specific support in terms of cognitive.

The supply of initial cash or facilities for the incubation of the entrepreneurial process is referred to as targeted non-cognitive support. With the changing environment in business and socio-economics, universities should also play a significant role in transferring information to the business world for commercialization and the betterment of society and their traditional function in

knowledge production (Espada, 2018; Zotov, 2019). This will expand the scope of the Higher Education from the generation of traditional knowledge to a more entrepreneurial eco-system enabler.

Through the explanation above, several hypotheses can be formulated as follows:

H1. Educational Support has a positive effect on Entrepreneurial Technology Readiness

H2. Educational Support has a positive effect on students' intentions towards Green Techno-entrepreneurship

H3. Targeted Non-Cognitive Support has a positive effect on Entrepreneurial Technology Readiness

H4. Targeted Non-Cognitive Support has a positive effect on students' intentions towards Green Techno-entrepreneurship

2.3. Prior entrepreneurial exposure

Siblings/Family from entrepreneurial families are more likely to be influenced and motivated to engage in entrepreneurial activities, and they are more likely to start a new firm in the future (Al-Harthi, 2017). In Singapore, students are more likely to start a new business after graduation if their parents are entrepreneurs (Ghazali, 2021). Families with entrepreneurial backgrounds often influence and motivate their family members to engage in entrepreneurial activities and they are expected to have a higher tendency to launch a new business in the future. Children tend to become entrepreneurs because they are influenced by their parents who work alone and are entrepreneurs. A child who already has entrepreneurship knowledge obtained from his parents' experience will know what kind of difficulties will be faced in entrepreneurship. In addition, children also see how their parents experience business failures and business changes will positively affect individual attitudes about entrepreneurship (Colichi, 2021).

Through the explanation above, several hypotheses can be formulated as follows:

H5. Prior Entrepreneurial Exposure has a positive effect on Entrepreneurial Technology Readiness

H6. Prior Entrepreneurial Exposure has a positive effect on students' intentions towards Green Techno-entrepreneurship

2.4. Technology readiness

Technology readiness refers to the tendency of people to use technology products or services from both the enabling and mental factors associated with optimism, innovation, discomfort, and insecurity. All of which together represent a person's tendency to interact with technology. The first two refer to triggers of action, while the other two refer to inhibitors. On the one hand, there are ideas related to flexibility, efficiency, and control (Jixiang, 2019). Innovativeness refers to a person's tendency to be pioneers in embracing new technologies. On the other hand, among the barriers, there is discomfort, a lack of control over the technology, or even a feeling of being overwhelmed by it. Insecurity is defined by distrust or even skepticism of technology or the ability to utilize it accurately. Previous research found that when a person has good technological readiness, it will encourage the individual to engage in activities using technology (Jixiang, 2019)(Safaei, 2020).

Based on this explanation, the research hypothesis is formulated as follows:

H7. Technology Readiness Exposure has a positive effect on students' intentions towards Green Techno-entrepreneurship

H8. Technology Readiness mediates the effect of Educational Support on students' intentions towards Green Techno-entrepreneurship

H9. Technology Readiness mediates the effect of Targeted Non-Cognitive Support on students' intentions towards Green Techno-entrepreneurship

H10. Technology Readiness mediates the effect of Prior Entrepreneurial Exposure Support on students' intentions towards Green Techno-entrepreneurship

2.5. Research framework

Through the explanation above, the conceptual framework of this study is as follows:



Fig. 1: Research framework

3. Methodology

3.1. Population and sample

The population in this study is the university students in Sumatra, Indonesia, where the population was based on students who had taken lectures in sixth semester. The number of samples taken in this study was 500 students at private universities in Sumatra Islang, Indonesia, where the sample range of the study was the best sample for conducting SEM analysis. Meanwhile, the sampling was done by a simple random sampling method.

3.2. Research instrument

This study uses a questionnaire containing several question items. First, the demographic aspect of the respondents consisted of questions regarding age, gender, study type and university program. Second, questions about student perceptions of each research variable were designed using a 5-point Likert scale with indicators as shown in table 1 below :

Variable	Indicator	Scale	Source
Educational Support (ESE)	 Entrepreneurship courses Motivating learning system Lecturer Professionalism Seminar and Entrepreneurship Practice Introduction to Technology Technology Facilities Green Knowledge (self-modified) 	Likert	(Al-Jubari, 2019; Kakouris, 2020)
Targeted Non- Cognitive Support (NCS)	 Provision of student business network Campus business infrastructure Entrepreneurial campus reputation Funding assistance for student entrepreneurship activities Creative campus atmosphere Campus green environment (self-modified) 	Likert	(Turchynova, 2021)
Prior Entrepreneurial Exposure (PEE)	 Having entrepreneurial parents Entrepreneurial Education by parents Previous work experience Experience of owning a business Have an entrepreneurial role model (self-modified) 	Likert	(Al-Harthi, 2017; Ghazali, 2021)

Table 1: Variable operationalization

Variable	Indicator	Scale	Source
Entrepreneurial Technology Readiness (ETR)	 Easiness Connectivity Efficiency Effectiveness Productivity Problem Solving Independence 		• (Warda, 2016)
Intention to Green Techno- entrepreneurshi p (GTI)	 Readiness to be an entrepreneur The goal of becoming an entrepreneur Efforts to become Entrepreneurs Desire/dream to become an entrepreneur Implementing technology Concern for the surrounding environment (self- modified) 	Likert	(Alvarez- Risco, 2021; Hameed, 2021; Silajdžić, 2015)

3.3. Data analysis technique

3.3.1. Normality test

The assumption of data normality is a test to determine whether the data used is using the critical value criteria (critical ratio) skewness value of ± 2.58 at a significance level of 0.10 (1%) (Ferdinand, 2014).

3.3.2. Multicollinearity test

Indications of multicollinearity or singularity can be seen through the determinant value of the covariance matrix which is very small, or close to zero. If the determinant value of the covariance matrix is greater than 0, it can be said that the data is free from multicollinearity problems so that the data is feasible to use in the analysis (Ferdinand, 2014).

3.3.3. Confirmatory factor analysis (discriminant validity, construct reliability test and variance extracted)

The validity of the measurement model is measured by determining whether each of the estimated indicators validly measures the dimensions of the concept being measured. The first condition that must be met is that the loading factor must be significant. Because the significant loading factor may still be of low value, the standardized loading estimate should be 0.50 or ideally 0.70 (Hair et al., 2010). Construct reliability 0.70 indicates good reliability, while reliability 0.60 – 0.70 is

still acceptable on the condition that the validity of the indicators in the model is good (Ferdinand, 2014).

The variance extract reflects the total variance in the indicators (observable variables) described by the latent variable. The Variance Extracted (VE) value 0.50 indicates a construct has good reliability (Ferdinand, 2014).

3.3.4. Goodness of fit test

Overall model testing (structural model and measurement model) in an integrated manner is carried out by conducting a goodness of fit test.

3.3.5. Hypothesis test

The hypothesis in this study was analyzed use Structural Equation Modeling (SEM). Based on the consideration that SEM has the ability to combine the measurement of the model and the structural model simultaneously when compared to other multivariate techniques. In addition, the SEM technique has the ability to test direct and indirect effects (direct and indirect). The software used for data processing using SEM in this study is AMOS and to measure the indirect effect use Sobel test Calculator.

4. Results

4.1. General characteristics

Based on the data presented in table 2, it can be seen that the respondents involved in this study is dominated by female students with a percentage of 56.4%. Meanwhile, in terms of the age, the majority of the respondents are aged 17-20 years old by 50.6%, which is the age that should be for college students because 17 years old is when people graduate from high school and continue their education to the University. For the lecture program, the majority of the respondents involved is full-time courses (57.6%) and only a small percentage of those respondents studied while working for their own business (15.6%). For the majors chosen by students in this study, most of them were majoring in social studies as much as 63.2% (Table 2).

Demography		Total	Percentage
	Male	218	43,6
Gender	Female	282	56,4
	Total	are 282 1 500 0 years 253 0 years 176	100
	17-20 years	253	50,6
A = -	21-30 years	176	35,2
Age	> 30 years	71	14,2
	Total	500	100
Study Type	Full Time	288	57,6
Study Type	Part Time	134	26,8

 Table 2: Demographic results of respondents

Demo	graphy	Total	Percentage
	(working- Employee)		
	Part Time (Self- Employment)		15,6
	Total	500	100
TT ' ',	Science	184	36,8
Programme	Social	316	63,2
riogramme	Total	500	100

Source : Data processed AMOS (2022)

4.2. Normality test result

The critical value (c.r) skewness can be detected in the univariate normality test, whereas the critical value (c.r) kurtosis may be seen in the multivariate normality test. If both univariate and multivariate c.r. values are in the range of 2.58 at the 0.01 level of significance, the normal distribution is met. Based on the results of the AMOS research, it can be seen that the value of c.r. Skewness is in the range of \pm 2.58. Therefore, it can be concluded that the univariate normality of the data is good. The multivariate test also showed the c.r. value of 2.55 where this number is categorized as multivariate normally distributed data. Thus, the data are qualified for the normality test (Source: Data processed by AMOS, 2022).

4.3. Multicollinearity test result

The determinant value of the covariance matrix, which is very tiny or close to zero, might indicate multicollinearity or singularity. If the determinant of the covariance matrix is larger than 0, the data are free from multicollinearity issues and may be used in the analysis. In this study, the result of the covariance matrix is 1.13, indicating that the data do not have a multicollinearity problem (Source: Data processed AMOS, 2022).

4.4. Data feasibility (validity and reliability)

A validity test is used to test the feasibility of an instrument as a measuring tool. Meanwhile, the reliability test measures the consistency of the measuring instrument/research instrument. In this study, the validity and reliability of the measuring instrument have been measured using a validity test where all statements in this study have a corrected item-total correlation value of more than 3.0 which means it is valid. Meanwhile, the Cronbach alpha value obtained is > 0.6 which means that the instrument is reliable, so that the research instrument is feasible for further analysis (Source: Data processed SPSS, 2022).

4.5. Confirmatory factor analysis (CFA)

Confirmatory Factor Analysis (CFA) was conducted to test the validity and reliability of latent constructs. The criteria for the validity of a construct can be seen from the Loading Factor/Standard Loading values > 0.5 or ideally 0.7 (Ferdinand, 2014: 289).

The necessary variance extracted value must be equal to or greater than 0.5 for construct dependability. Meanwhile, the needed build reliability value must be at least 0.70. The results can further be seen in the following table:

Variable	Indicator	Sd Loading	Construct	Variance
variable	Indicator	Su Loading	Reliability	Extracted
	ESE1	0,661		
	ESE2	0,693		
Education of	ESE3	0,852		
Support (ESE)	ESE4	0,910	0,931	0,663
Support (LSL)	ESE5	0,951		
	ESE6	0,881		
	ESE7	0,700		
	NCS1	0,760		
T	NCS2	0,705		
Targetted Non-	NCS3	0,798	0.010	0 (29
(NCS)	NCS4	0,860	0,910	0,628
(\mathbf{NCS})	NCS5	0,815		
	NCS6	0,808		
D.:	PEE1	0,930		
Prior Entrepreneuriel	PEE2	0,578	0.862	0.621
Entrepreneuriai Exposure (PEE)	PEE3	0,962	0,802	0,021
Exposure (I EE)	PEE4	0,601		
	ETR1	0,781		
	ETR2	0,753		
Entrepreneurial	ETR3	0,761		0.552
Technology	ETR4	0,835	0,895	0,553
Readiness (ETR)	ETR5	0,870		
	ETR6	0,580		
	ETR7	0,571		
	GTI1	0,817		
Intention to Green	GTI2	0,652		
Techno-	GTI3	0,811	0.004	0 61 4
entrepreneurship	GTI4	0,881	0,904	0,614
(GTI)	GTI5	0,807		
	GTI6	0,711		

Table 3: Results of loading factor, construct reliability and variance extracted

Source : Data processed AMOS (2022).

The total Loading Factor value of the statement items in this study is larger than 0.5, as shown in table 3, indicating that the research concept is genuine. All study variables have a variance extracted value more than 0.5 and a construct reliability value larger than 0.7, according to the table. As a result, the construct's dependability has been determined to met the standards.

4.6. Goodness of fit result

If empirical evidence conceptually and logically supported the model, it is termed to be excellent (fit). The goodness of fit test for the overall model is provided in Table 4.

No	GoF	Cut off Value	Result	Conclusion
1	Chi-Square		410.288	Good fit
2	Significant Probability	≥ 0.05	0.604	Good fit
3	GFI	≥ 0.90	0.876	Marginal Fit
4	AGFI	≥ 0.90	0.931	Good Fit
5	TLI	≥ 0.90	0.922	Good Fit
6	CFI	≥ 0.90	0.948	Good Fit
7	NFI	≥ 0.90	0.930	Good Fit
8	IFI	≥ 0.90	0.961	Good Fit
9	RSMEA	0.05-0.08	0.081	Good Fit

Table 4.	Test	goodness	of fit	indices
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Source : Data processed AMOS (2022)

Table 4 informs the results of the Goodness of Fit Indices test. Meanwhile, significant probability, AGFI, TLI, CFI, NFI, IFI, and RSMEA obtained model-fit results, while GFI obtained marginal fit results, though in this case, marginal fit results were acceptable.

4.7. Hypothesis test result

With a significance level of 0.05, the t-value was utilized to test hypotheses. In the AMOS 21 program, the critical ratio (c.r.) value for regression weights was the t-value. When the critical ratio exceeds 1.96 or the probability (P) was less than 0.05, H0 was rejected, indicating that the hypothesis was accepted. The study's hypothesis findings are summarized in Table 5, Table 6 and Figure 2.

		¥ 1					
Hypothe sis	Exogeneou s Variable	Endogenous Variable	Stand Coef.	CR	Coef	P Value	Conclusio n
H1	Educationa 1 Support	Entrepreneuri al Technology Readiness	0.021	0.925	+	0.355	Rejected
H2	Educationa l Support	Intention to Green Techno- entrepreneurs hip	0.221	8.265	+	0.000	Accepted
Н3	Targeted Non- Cognitive Support	Entrepreneuri al Technology Readiness	0.751	2.911	+	0.004	Accepted
H4	Targeted Non- Cognitive Support	Intention to Green Techno- entrepreneurs hip	1.135	3.187	+	0.001	Accepted
Н5	Prior Entreprene urial Exposure	Entrepreneuri al Technology Readiness	0.185	6.441	+	0.000	Accepted
H6	Prior Entreprene urial Exposure	Intention to Green Techno- entrepreneurs hip	0.007	0.247	+	0.805	Rejected
H7	Entreprene urial Technolog y Readiness	Intention to Green Techno- entrepreneurs hip	2.109	11.98 0	+	0.000	Accepted

Table 5: Hypothesis test result for direct effect

Source : Data processed AMOS (2022)

Table 6: Hypothesis test result for mediation effect

		, i			
Hypo- thesis	Exogenous Variable	Endogenous Variable	Mediating Variable	P-Value from Sobel Test	Conclusion
H8	Educational Support	Intention to Green Techno- entrepreneurship	Entrepreneurial Technology Readiness	0.280	Rejected
Н9	Targeted Non- Cognitive Support	Intention to Green Techno- entrepreneurship	Entrepreneurial Technology Readiness	0.042	Accepted
H10	Prior Entrepreneu rial Exposure	Intention to Green Techno- entrepreneurship	Entrepreneurial Technology Readiness	0.102	Rejected

Source : Data processed AMOS (2022)



Fig. 2: SEM model

Source : Data processed AMOS (2022)

5. Discussion

Table 4 shows that H1 is rejected, which means that educational support does not directly affect Entrepreneurial Technology Readiness. The development of technology and information is growing rapidly, accompanied by the emergence of globalization. Therefore, in encountering the globalization, the role of education is very important to make graduates' resources competitive and stable in technological change. Readiness to apply technology in entrepreneurship can be applied to the younger generation through the role of universities in encouraging students to use technology in teaching and learning and also providing technological facilities for students (Noerhartati, 2019). However, this is not proven in this study where the encouragement of education in Indonesia, especially Sumatra, has not been able to increase Entrepreneurial Technology Readiness. In hypothesis 2, this study shows that educational support in terms of entrepreneurship education is able to increase students' intention to become Green Techno-entrepreneurship graduates. This means that some educational supports in entrepreneurship courses, seminars, guest lectures by leading entrepreneurs, simulation games, and other methods can support and shape entrepreneurial ambitions among students. Several studies have shown that the perception of educational support has a positive effect on student entrepreneurship

interest. Along with general education support, Universities can also provide more targeted and specific support in terms of cognitive. In this study, apart from having an interest in setting up and running a business either during college or after graduation, students can use technology in their business activities and become entrepreneurs who care about the environment. Due to the direct hypothesis analysis of H1 and H2 that are rejected, the mediating role of entrepreneurial technology readiness in this study was also not found. This means, even without going through the mediation of entrepreneurial technology readiness, educational support is able to directly encourage students' business interests (Cortés, 2021). Based on the personality of current students, the majority of current students are Generation Z, where this generation was born at a time when technological change was taking place rapidly (Osipov, 2018). For this reason, this certainly has become a separate provision for students without having to get encouragement from the University. In fact, technology itself in Indonesia is still a challenge in education. Many higher education still have difficulty applying technology because of the lack of support for infrastructure and resources. For this reason, this is the reason H7 is not proven where entrepreneurial technology readiness acts as mediation in the relationship of educational support to Student Intention to become Green Techno-entrepreneur.

Targeted non-cognitive support refers to the provision of initial funds or facilities to incubate the entrepreneurial process. In this study, H3 and H4 are accepted where Targeted Non-Cognitive Support from the university influenced entrepreneurial technology readiness and student intention to Green Techno-entrepreneurship. The results of the direct influence also have an impact on the results of the indirect effect test, where in H8 also found a partial mediating role of entrepreneurial technology readiness in the relationship of Targeted Non-Cognitive Support to student intention to Green Techno-entrepreneurship. Targeted Non-Cognitive Support facilitates students through the direct practice of entrepreneurship and green entrepreneurship within the University. Several universities in Indonesia, especially in Sumatra, which is the sample of this research, already have a business incubator. In addition, the concept of an independent campus by the Indonesian Ministry of Education since 2020 has helped universities to take steps to make it easier for their students to be directly involved in the industrial world. For this reason, along with the traditional role of universities in terms of knowledge generation, with the changing landscape in business and socio-economics, it is hoped that universities should also play a key role in transferring knowledge to the business world for commercialization and the good of society (Qin, 2020; Ramazanov, 2018; Bresfelean, 2021).

The findings on hypotheses 6 and 7 show that Prior Entrepreneurial Exposure has a significant positive effect on entrepreneurial technology readiness but has no significant effect on intention on green techno-entrepreneurship. In addition, the results of research on hypothesis 9 show that Entrepreneurial Technology Readiness is able to act as a mediating variable between the relationship between Prior Entrepreneurial Exposure and Intention to Green techno-entrepreneurship. In this case, Prior Entrepreneurial Exposure can be obtained in two different ways: observation of entrepreneurial examples and direct entrepreneurial experience. Research related to entrepreneurial role models shows that having a parent, relative, or friend, who has already started a business, allows one to begin his or her own business (Polbitsyn, 2020). In this study, it is found in table 2 that there are students who continue their studies while working either for other people or working for their own business. This is certainly a support in creating an entrepreneurial experience. Furthermore, the individual's direct entrepreneurial experience (i.e., previous work experience in a small/new company or previous founder) is an additional important factor in forming entrepreneurial intentions (Polbitsyn, 2020; Reuther, 2020).

Several similar studies state that direct individual entrepreneurial experience does not have a significant effect on the formation of entrepreneurial interest. In hypothesis 9, it was found that technology readiness has a significant effect on the intention to green techno-entrepreneurship. The results of this study are in line with research conducted by several previous researchers, where when a person already has good technological readiness, it will encourage the individual to be active in using technology (Safaei, 2020; Ganbold et al., 2021).

The findings of this study answer theoretically the development of the theory and concept of entrepreneurship Psychological entrepreneurship initiated by the theory of David C. McClelland in 1961 which developed entrepreneurship as a certain individual behaviour that shows a need for achievement, little interest in routine but likes high-risk tasks. as well as moderate risk. In the findings of this study, entrepreneurship is studied further in relation to business and technology development in the concept of Green Techno-entrepreneurship. Green techno-entrepreneurship emphasizes technology-based businesses and a green environment. Therefore, this finding found important determinant models in producing Green techno-entrepreneurship in students, namely University Environment and Support, Prior Entrepreneurial Exposure and Technology Readiness.

Practically speaking, this research also finds out how the application of the role of Green Techno-entrepreneurship is important to students so that when they graduate students are able to open businesses related to green techno-entrepreneurship (selfemployment) in order to reduce the unemployment problem in Indonesia. The results of the analysis of the 9 research hypotheses also show a model that plays an important role in generating student intentions, namely through the role of University Environment and Support. The role of University Environment and Support is known to be important in terms of increasing students' intentions in entrepreneurship, namely through packaging of entrepreneurship learning methods through curriculum, lesson plans and learning tools, additional training related to entrepreneurship, creation of campus business incubators, infrastructure support in facilitating student entrepreneurship. In addition, Prior Entrepreneurial Expo-sure also helps encourage students to have entrepreneurial intentions, in this case such as aspects of the offcampus environment, family, friends and even idols/role models. Besides the importance of these two things, for students to generate this technology, Technology Readiness has the potential as a liaison/mediation which in this finding is able to encourage students not only to have entrepreneurial intentions but to be able to become entrepreneurs who are Green techno-entrepreneurship. Students are now able to spend their ideas and thoughts in developing technology-based products, creating technology infrastructure and involving technology in every business process without overriding an impact on the surrounding environment.

From this explanation, seeing the importance of developing a Green technoentrepreneurship model for students, this research has limitations, including some of the determinants that are studied more on institutional support as a form of formal education only. Even though there are still many aspects, especially from the individual students themselves that will give a strong impetus to their intention to become entrepreneurs. Various aspects of literacy such as financial literacy, information and technology are also important to be instilled in an individual to be able to become an entrepreneur today, namely Green Techno-entrepreneurship.

6. Conclusion

The results of this study indicate that university Environment and Support in terms of educational support have a significant positive effect on student intention toward green techno-entrepreneurship, but educational support does not have a significant effect on entrepreneurial technology readiness. In terms of targeted non-cognitive support, it has a significant positive effect on entrepreneurial technology readiness and intention on green techno-entrepreneurship. Prior Entrepreneurial Exposure also has a significant positive effect on entrepreneurial technology readiness but has no significant effect on the intention on green techno-entrepreneurship. Through the results of the direct hypothesis analysis, mediation findings were also obtained where entrepreneurial technology readiness was able to mediate the effect of targeted non-cognitive support and Prior Entrepreneurial Exposure on intentions on green techno-entrepreneurship but was unable to mediate the effect of educational support. Future researchers are expected to be able to further explore other variables that play a more role in increasing the intention on green techno-entrepreneurship, such as exploring the individual character of students.

References

Al-Harthi, A. S. A. (2017). Understanding entrepreneurship through the experiencesof Omani entrepreneurs: Implications for entrepreneurship education. Journal ofDevelopmentalEntrepreneurship,22(1).https://doi.org/10.1142/S1084946717500017.

Al-Jubari, I. (2019). How do entrepreneurship education and self- efficacy influence entrepreneurship intention? *International Journal of Innovation, Creativity and Change*, 5(2), 949–966. https://api.elsevier.com/content/abstract/scopus id/85072626337.

Alakaleek, W. (2019). The status of entrepreneurship education in Jordanian universities. *Education and Training*, 61(2), 169–186. https://doi.org/10.1108/ET-03-2018-0082.

Alvarez-Risco, A. (2021). Factors affecting green entrepreneurship intentions in business university students in covid-19 pandemic times: Case of ecuador. *Sustainability (Switzerland)*, *13*(11). https://doi.org/10.3390/su13116447.

Anggadwita, G. (2021). Empowering Islamic boarding schools by applying the humane entrepreneurship approach: the case of Indonesia. *International Journal of Entrepreneurial Behaviour and Research*, 27(6), 1580–1604. https://doi.org/10.1108/IJEBR-11-2020-0797.

Archana, M. S. (2022). Women Entrepreneurship and Innovation in Higher Education: Opportunities and Challenges in India -A Review. *Journal of Engineering Education Transformations*, 35(3), 37–44. https://api.elsevier.com/content/abstract/scopus_id/85126538431.

Batista, R. M. (2016). Teaching Entrepreneurship: A Comparison Between Virtual and Classroom Teaching Contexts. In *Innovation, Technology and Knowledge Management* (pp. 87–99). https://doi.org/10.1007/978-3-319-24657-4_7.

Bell, R. (2020). Applying educational theory to develop a framework to support the delivery of experiential entrepreneurship education. *Journal of Small Business and Enterprise Development*, 27(6), 987–1004. https://doi.org/10.1108/JSBED-01-2020-0012.

Blimpo, M. P. (2021). Entrepreneurship education and teacher training in Rwanda. *Journal of Development Economics*, 149. https://doi.org/10.1016/j.jdeveco.2020.102583.

Bodea, C. N. (2015). Simulation-based e-learning framework for entrepreneurship education and training. *Amfiteatru Economic*, *17*(38), 10–24. https://api.elsevier.com/content/abstract/scopus_id/84921962028.

Bresfelean, V. P., Tiron-Tudor, A., Lacurezeanu, R., Bresfelean, C. A., & Muresan, G. M. (2021). ERP System Course as a Facilitator for Students' Integrated and Integrative Thinking Mindset. *Journal of System and Management Sciences*, *11*(3), 185-214.

Chakrabarty, A., Tagiya, M., & Sinha, S. (2021). Techno-entrepreneurship in India Through a Strategic Lens. *Research in Intelligent and Computing*. https://doi.org/10.1007/978-981-15-7527-3_29.

Colichi, R. M. B. (2021). Entrepreneurship and family support in nursing students from Brazil and Chile. *ACTA Paulista de Enfermagem*, 34. https://doi.org/10.37689/ACTA-APE/2021AO00652.

Cortés, C. B. Y. (2021). The impact of motivations, competencies and success factors for entrepreneurship on business performance. An analysis in MSMES in Queretaro State, Mexico. *Contaduria y Administracion*, 66(1). https://doi.org/10.22201/fca.24488410e.2021.2327.

Dolinar, M. (2021). Innovation and Entrepreneurship in Primary School – the Path to Reaching the Top of "Bloom's Pyramid." *Didactica Slovenica - Pedagoska Obzorja*, 36(2), 64–77. https://api.elsevier.com/content/abstract/scopus_id/85124825544.

Espada, J. S. (2018). Education and training in social entrepreneurship: Characteristics and creation of sustainable social value in social entrepreneurship projects. *REVESCO Revista de Estudios Cooperativos*, *129*, 16–38. https://api.elsevier.com/content/abstract/scopus_id/85068531349.

Fernández, M. de las M. B. (2021). Analysis of the European Women Entrepreneurship in STEM Fields. In *Contributions to Management Science* (pp. 47–60). https://doi.org/10.1007/978-3-030-83792-1_3.

Ferdinand, Augusty. (2014). *Metode Penelitian Manajemen*. BP Universitas Diponegoro. Semarang.

Ganbold, G., Chen, C. S., Ayaz, M., & Jang, H. Y. (2021). The impact of incentive system on employees' entrepreneurship and innovation performance: Moderating effect of locus of control. *Journal of System and Management Sciences*, *11*(3), 41-57.

G.hazali, E. M. (2021). The impact of the institutional environment and experience on social entrepreneurship: a multi-group analysis. *International Journal of Entrepreneurial Behaviour and Research*, 27(5), 1329–1350. https://doi.org/10.1108/IJEBR-05-2020-0332.

Golovina, T. A. (2017). Strategic vectors of the development of the state support of youth entrepreneurship in Russia. *Ekonomicheskaya Politika*, *12*(5), 42–61. https://doi.org/10.18288/1994-5124-2017-5-03.

Gómez, H. E. G. (2022). Entrepreneurship and university education: a necessary relationship. *Revista Venezolana de Gerencia*, 27(98), 767–780. https://doi.org/10.52080/rvgluz.27.98.24.

Hameed, I. (2021). A serial-mediation model to link entrepreneurship education and green entrepreneurial behavior: Application of resource-based view and flow theory. *International Journal of Environmental Research and Public Health*, *18*(2), 1–19. https://doi.org/10.3390/ijerph18020550.

Indonesia Central Bureau of Statistics (2021). https://www.bps.go.id. Date accessed 10 September 2021.

Jixiang, Z. (2019). Research on Innovation and Entrepreneurship Talent Training Model for Application-Oriented University under Perspective of Collaborative Innovation. *International Journal of Information and Education Technology*, *9*(8), 575–579. https://doi.org/10.18178/ijiet.2019.9.8.1269.

Kakouris, A. (2020). Assessing the impact of entrepreneurship education on entrepreneurial beliefs and conceptualizations. In *Proceedings of the European Conference on Innovation and Entrepreneurship, ECIE,* 320–329. https://doi.org/10.34190/EIE.20.104.

Kim, S. J. & Lee, J. (2019). Technological embeddedness as a determinant of techno-entrepreneurship. *Research on Techno-Entrepreneurship, Third.* https://www.elgaronline.com/downloadpdf/edcoll/9781786439062/978178643906 2.00008.pdf.

Noerhartati, E. (2019). Sorghum-based alternative food industry: Entrepreneurship high education. In *Proceedings of the International Conference on Industrial Engineering and Operations Management*, 3652–3656. https://api.elsevier.com/content/abstract/scopus_id/85067255965.

Osipov, V. A. (2018). The basis and possibility of students' participation in supply chain entrepreneurship (Case study: Primorsky Territory). *International Journal of Supply Chain Management*, 7(5), 650–656. https://api.elsevier.com/content/abstract/scopus_id/85060849946.

Polbitsyn, S. (2020). Entrepreneurship education for the digital generation: Invention or transformation? In *Proceedings of the European Conference on Innovation and Entrepreneurship, ECIE,* 460-467. https://doi.org/10.34190/EIE.20.037.

Qin, H. (2020). Research on the influence of e-commerce entrepreneurship education on the development of marine economy based on the entropy method. *Journal of Coastal Research*, *111*, 263–267. https://doi.org/10.2112/JCR-SI111-047.1.

Ramazanov, A. V. (2018). Development of youth entrepreneurship in Russia in the conditions of digital economy. *Journal of Social Sciences Research*, 99–102. https://doi.org/10.32861/jssr.spi5.99.102.

Reuther, K. E. (2020). Work in progress: Experiential, interdisciplinary course in global health innovation and entrepreneurship. In *ASEE Annual Conference and Exposition, Conference Proceedings.* https://api.elsevier.com/content/abstract/scopus_id/85095767914.

Safaei, M. (2020). Investigating the structure of strategies in developed countries to expand entrepreneurship and technology a case study: "US singularity university." *Journal of Advanced Research in Dynamical and Control Systems*, *12*(3), 571–578. https://doi.org/10.5373/JARDCS/V12I3/20201225.

Sheppard, S. (2015). Exploring what we don't know about entrepreneurship education for engineers. In ASEE Annual Conference and Exposition, Conference Proceedings, 122(122). https://api.elsevier.com/content/abstract/scopus_id/84941992889.

nups://api.eiseviei.com/content/abstract/scopus_10/84941992889.

Silajdžić, I. (2015). Green entrepreneurship in transition economies: A case study of Bosnia and Herzegovina. *Journal of Cleaner Production*, 88, 376–384. https://doi.org/10.1016/j.jclepro.2014.07.004.

Turchynova, G. (2021). Entrepreneurship education of It-specialists through distance learning technologies. *International Journal of Entrepreneurship*, 25(6). https://api.elsevier.com/content/abstract/scopus_id/85111050840.

Warda, S. A. (2016). New educational services development: Framework for technology entrepreneurship education at universities in Egypt. *International Journal of Educational Management*, 30(5), 698–717. https://doi.org/10.1108/IJEM-11-2014-0142.

Zotov, V. B. (2019). Experience in implementing student business incubator in entrepreneurship education. *Journal of Entrepreneurship Education*, 22(4). https://api.elsevier.com/content/abstract/scopus_id/85073473743.