

# Green Entrepreneurship Behavior: A Literature Review

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## Abstract

### Keywords:

Entrepreneurs;  
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entrepreneurship  
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environment

Research on green entrepreneurship behavior is still leaving questions related to the support against the grand theory that has been already acknowledged by academicians or practitioners. This article serves as a literature review of recent findings related to green entrepreneurship behavior variables reviewed from the underlying theories. Using content analysis from previous research articles, the researchers conducted a study that focused on the underlying theories and antecedents of the green entrepreneurship behavior variable. The article selection process is based on internationally reputed journals published over the past five years (2017-2021), searches on the Science Direct web, using the keywords 'green entrepreneurship', 'sustainable entrepreneurship', 'ecopreneurship', environment entrepreneurship, and 'antecedents'. The results showed that there are various theoretical concepts that can be used to explain and determined the antecedents of green entrepreneurship behavior. This includes psychological, personality traits, and contextual factors that were identified as antecedents of green entrepreneurship behavior. For further research, there are many related issues that can be analyzed, such as the decision-making process to become green entrepreneurs, the implementation of green entrepreneurship practices, etc.

## Abstrak

### Kata Kunci:

Wirausahawan;  
Perilaku Wirausaha  
Hijau; Lingkungan  
Berkelanjutan

Riset di area green entrepreneurship behavior sampai saat ini masih menyisakan pertanyaan tentang bangunan teori yang mendukung yang sudah ditawarkan oleh ilmuwan dan peneliti sebelumnya. Artikel ini menyajikan kajian literatur tentang anteseden dari green entrepreneurship behavior, dilihat dari bangunan teori yang mendasarinya. Menggunakan analisis isi dari artikel penelitian sebelumnya, peneliti menyajikan penelitian yang fokus pada bangunan teori dan anteseden dari variabel green entrepreneurship behavior. Proses pemilihan artikel didasarkan pada jurnal bereputasi internasional yang dipublikasikan selama lima tahun dari tahun 2017-2021, dari Science Direct, menggunakan kata kunci 'green entrepreneurship', 'sustainable entrepreneurship', 'ecopreneurship', environment entrepreneurship, and 'antecedents'. Hasil menunjukkan bahwa ada bangunan teori yang bervariasi yang bisa digunakan untuk menjelaskan dan menentukan anteseden dari green entrepreneurship behavior. Faktor psikologi, personality traits, dan faktor kontekstual diidentifikasi sebagai anteseden dari variabel green entrepreneurship behavior. Untuk penelitian ke depan, ada beberapa isu terkait yang bisa dianalisis, seperti proses pengambilan keputusan untuk menjadi green entrepreneurs, serta praktek implementasi dari green entrepreneurship.

## 1. Introduction

Medium and small enterprises (MSMEs) play a role as economic movers in Indonesia. Based on data from The Central Bureau of Statistics, the current Indonesian population in 2020 is about 270 million people, where 68.75 percent enter age productive with generation millennials 69.90 million people or 25.87 percent, and Generation Z 75.49

million people which represents 27.94 percent of the population in Indonesia. Interestingly, in Indonesia, this total entrepreneurship is only 3.47 percent of the total population resident until the moment. For that reason, the government has a plan to produce and develop more entrepreneurs especially young entrepreneurs in order to facilitate the growth of Indonesia's economy.

Lately, the world has experienced many environmental issues such as global warming that are caused by human activity and economic activity. Therefore, it is an urge to the whole world to find a solution that can minimize the risk of our environment being threatened by human activity and at the same time, people can get benefit and improve their life. For that reason, the green entrepreneurship concept has been introduced as one of the alternatives to this problem. Gross Domestic Product (GDP) is one of the factors that contribute to the environmental issue. There is a positive correlation between GDP level with the level of pollution environment. To reduce pollution environment, they then offered one draft activity-friendly economy \_ environment (green economy). Draft this is an economic strategy sustainable endeavor build balance Among Mark economic, social, and environmental.

The appearance of market turbulence is marked by a market demand that is not determined signals for businesses to operate based on market-driven. Consumer trends change and looking toward environmentally friendly products. Consumers become green consumers, choose products that are not just considered economical only (cheap or expensive), but also consider what they think is healthy, safe, quality, and not pollute the environment ([Wikaningtyas et al., 2019](#)).

Green Entrepreneurship is seen as one of the solutions to solve problems related to pollution in society. Green Entrepreneurship is defined as an approach to entrepreneurship that delivers attention to a commitment-friendly environment, which tends to create new products, new technologies, or new businesses for complete problems in the climate community ([York & Venkataraman, 2010](#)). Green entrepreneurship tends to build integration Among business, environmental and social benefits in business to reach superiority competitiveness ([Lotfi et al., 2018](#)).

In many countries, the concept of green entrepreneurship has already many introduced in primary level education. At this level, mainly students are encouraged and educated about the importance to take care of our environment and introduce how the green entrepreneurship concepts can save our world. In Indonesia, government and some other business-related institutions promote this concept through the campaign at various levels. Surprisingly, current trends observed in Indonesia have shown that there are quite many new young start-up entrepreneurs interested to involve in business that promotes a new environmentally friendly product, such as a waste bank, recycling products, utilization of land potential, and finding another alternative of energy resources that is sustainable.

A factor that triggers this behavior is a green value, and there are opportunities in the market, sustainable life, desire becomes the main business, and interest of everyone ([Kirkwood & Walton, 2010](#)). On the other hand, small and intermediate industries already exist before are reluctant to switch from conventional to green entrepreneurial practices.

Schick et al, (2002) noted some factor barriers experienced by prospective green entrepreneurs, namely: lack of information, lack of awareness, limitations, and access to funding from the public sector.

Muo & Azeez (2019), states that green entrepreneurship is a new concept. Still, some proof shows the existence of collaboration Among academics and practitioners in exploring novelty in level practice to understand good related to green entrepreneurship. So that still many research agendas can be excavated, one of them is what only attitude becomes the predecessor for green entrepreneurship behavior, and how is the process of decision from an entrepreneur to become a green entrepreneur.

Study about green entrepreneurship has also been conducted for some decade. In research, ordinary green entrepreneurship is called green, ecopreneurship, ecology entrepreneurship, sustainable entrepreneurship, or environmental entrepreneurship. Study this still leaves some research questions that lead to the research gap between research results. Greco & Jong (2017), identified that one area that is still not yet enough research is a related factor the individual who becomes a predictor main of sustainable entrepreneurship.

Research on green entrepreneurship behavior is still leaving questions related to the support against this concept. Even though this concept is widely practiced and recognized by many other countries, especially in the Western community, but not in the Indonesian community. For that reason, this work is an attempt to determine the factors that may contribute to green entrepreneurship concepts being successfully implemented in Indonesia in the aspects of behavior variable reviewed from the underlying theories.

## 2. Literature Review

Makower & Pike (2008), stated that there is a need for a balance between profit, sustainability, and humanity in an environmentally friendly business. Croston (2009) states that environmentally friendly businesses can positively impact both the organization and the environment. Environmentally-friendly business is proof of efforts to maintain organizational sustainability that is better than competitors, provide environmental benefits, help people create a better life for now and in the future, and lead to the support of economic growth. Slovik (2011), explains that environmentally friendly entrepreneurs always maintain environmental sustainability by rejuvenating their resources and paying attention to aspects of human resources in all their activities.

Gevrenova (2015), explains that green entrepreneurship is a company that produces environmentally friendly products, reduces its spending, sustainably uses natural resources, and adopts energy-saving techniques. Green Entrepreneurship is defined as an effort to minimize the environmental footprint, namely the total environmental and social costs caused by human entrepreneurial activities (Hall et al., 2010). Green entrepreneurship views that are formulating the values that are believed in viewing the environment as one of the company's competitive advantages. Furthermore, efforts to understand these values to be internalized in business life will become the company's identity that distinguishes itself from other companies.

The paradigm shift of production and consumption towards green products and services ultimately requires 'green' entrepreneurship in the market (Farinelli et al., 2011). The trend of new companies (Chygryn, 2016) is seeking to address these entrepreneurs who decide to become green entrepreneurs who carry a mission to change society and organizational behavior by making them more environmentally responsible in their business practices. According to Cooney (2009), a business can be said to be green entrepreneurship if it meets four criteria:

- a) The company internalizes the principles of business sustainability in every business decision,
- b) The company produces and offers products or services that are environmentally friendly,
- c) The company is greener or more environmentally friendly than competitors,
- d) The company has an ongoing commitment to apply environmental principles in its business operations.

Elkington (2004), is known as the originator of the Triple Bottom Line of Business theory stating that the basic pillars of business sustainability are the universe or the environment (planet), society (people), and company profits (profit). Green entrepreneurship is a business paradigm that advocates doing business for profit while caring, committed, and responsible for preserving the environment and the universe (planet) and improving social welfare for the community (Cooney, 2009). It can achieve sustainability and the economic prosperity of the corporation. Because it is supported by sustainable business profitability (sustainability profit), sustainable conservation of the universe (sustainability planet), and sustainable welfare and social justice of the community (people well being & equity). According to Dixon & Clifford (2007), there are three dimensions of green entrepreneurship: clean growth, socially aware business, and environmentally friendly business.

There are six concept components related to green entrepreneurship, namely (Haldar, 2019):

- a) Innovation and green entrepreneurship will be related to both product and process, which will differentiate it from non-green companies. In the context of this innovation, companies engaged in green entrepreneurship will create environmentally friendly products and efficient production processes in resource management.
- b) Sustainability, green entrepreneurship always thinks of a sustainable business, both in terms of products, markets, and most importantly, the resources used.
- c) Technological advancement, and green entrepreneurship emphasizes the importance of using environmentally friendly technology, which minimizes the impact of using technology to damage nature and society.
- d) Economic development green entrepreneurship will impact economic development, primarily through the creation of new industries so that they will be able to create new jobs and increase people's purchasing power.
- e) Environmental quality, green entrepreneurship will improve the environmental quality of its business practices. Because they always run a business with an environmentally friendly concept, namely utilizing it by continuously maintaining, caring for, and regenerating the environment.

- f) Social welfare is the goal of green entrepreneurship, where the community's welfare will be realized if there is a balance of nature built from environmentally friendly business practices.

### 3. Method

This research is a library research study by conducting a literature review related to green entrepreneurship behavior. Using content analysis from previous research articles, the researchers conducted a study that focused on the underlying theories and antecedents of the green entrepreneurship behavior variable. The article selection process is based on internationally reputed journals published over the past five years (2017-2021). It is conducted by searching the article searches on the Science Direct web using the keywords 'green entrepreneurship', 'sustainable entrepreneurship', 'ecopreneurship', environment entrepreneurship, and 'antecedents'. The reason for choosing Science Direct Web is because articles on Science Direct always affiliate with the Scopus library. First step researcher used the keyword 'green entrepreneurship', 'sustainable entrepreneurship', 'ecopreneurship', environment entrepreneurship, on a search engine, period 2017-2021, and results in 3016 articles related. Second, the researcher limits the searching by using keywords of 'antecedents' and 'antecedents' which results in 200 articles related. An analysis was then carried out from the articles collected to answer theoretical questions and antecedents of green entrepreneurship behavior. To support and deepen the theoretical analysis, the researcher also uses reference articles published before 2017.

## 4. Result and Discussion

### 4.1. Research Topics of Green Entrepreneurship in Five Years Last (2017-2021)

From result *review* literature conducted by researchers related with topics *green entrepreneurship behavior*, the following served research trend map quantitative from 2017-2021:

Table 1. Research Sintesys: Antesedents of *Green Entrepreneurship Behavior* (2017-2021)

References	Theory	Research Variables	Research Finding
Yu & Yu (2017)	1) TPB 2) Value Beliefs Norms Theory	1) Sustainable value 2) Environment concern 3) Social norms 4) Perceived risk 5) Pro-environmental attitude 6) Personality trait 7) Intention to pro-environment behavior.	1) The variable that directly becomes the antecedent of intention to environment behavior is pro-environment attitude. 2) Social norms and environment concerns relate to intention through mediating attitude variables and moderating personality trait variables 3) The variables of sustainable value and environmental concern are not antecedents of intention
Peng, et al., (2021)	TPB	1) Environmental Values 2) Attitude to Sustainable entrepreneurship 3) Experience 4) Social Norms 5) Self Efficacy	1) The antecedents of the sustainable entrepreneurship variable are Environmental Values, Attitude to Sustainable entrepreneurship, Social Norms, and Self Efficacy. 2) The experience variable becomes the moderating variable for the relationship



References	Theory	Research Variables	Research Finding
Arru B (2020)	1) TPB 2) Personality Traits Theory	6) Sustainable Entrepreneurship 1) Sustainable Motivation 2) Personality Traits 3) Sustainable Entrepreneurship	between the antecedent variable and the sustainable entrepreneurship variable Antecedent of sustainable entrepreneurship are Sustainable Motivation and Personality Traits.
Hussain, et al., (2021)	1) Sapero Model 2) Theory Planned behavior	1) Social networking sites 2) Self-efficacy 3) Risk propensity 4) Subjective norm	Variables that become antecedents of Sustainable entrepreneurship are social networking sites, Self- efficacy, and Risk propensity, while the subjective norm variable is related but not significant with sustainable entrepreneurship
Hameed, et al., (2021)	Theory RBV	1) Entrepreneurship education 2) Commitment to environment 3) University green entrepreneurship support 4) Entrepreneurship motivation	1) The positive relationship between entrepreneurship motivation on GEB is not significant. 2) Commitment to the environment and university GE support are the antecedents of GEB 3) Entrepreneurship education affects GEB by mediated by the commitment variable.
Dhahri, et al., (2021)	Traits Theory of Entrepreneurship	1) Opportunity Entrepreneurship 2) Necessity Entrepreneurship 3) Sustainable Entrepreneurship	Opportunity Entrepreneurship and Necessity Entrepreneurship are the antecedents of Sustainable Entrepreneurship
Liang, et al., (2019)	Traits Theory of Entrepreneurship	1) (Five) personality trait 2) Social Capital 3) Creativity Entrepreneurship 4) Sociotreneurial Intention	Five personality traits, Social Capital, and Creativity Entrepreneurship are the antecedents for the variable Sociotreneurial Intention
Alvarez-Risco, et al., (2021)	Theory Reasoned Action	1) Education development support 2) Conceptual development support 3) Country support 4) Entrep self efficacy 5) Green entrepreneurship Intention	The antecedents of Green Entrepreneurship intention are Education development support, Conceptual development support, Country support, Entrepreneur self efficacy
Thelken & de Jong, (2020)	1) TPB 2) Value-Beliefs-Norms Theory	1) Value 2) Future Orientation 3) Attitude 4) Subjective norms 5) Perceived behavior 6) Green Entrepreneurship Intention	The antecedents of green entrepreneurship intention are Value, Future Orientation, Attitude, Subjective norms, Perceived behavior
Jiang et al., (2020)	Cognitive Dissonance Theory	1) Entrepreneurial Creativity 2) Green Recognition 3) Green Self Identity 4) Green Disengagement	The antecedent of green entrepreneurial intention is Greene Recognition, Green Disengagement

References	Theory	Research Variables	Research Finding
Khursheed et al., (2019)	TPB	5) Green Entrepreneurial Intention 1) Prior Experiences 2) Perceived Behavioral Control 3) Subjective Norms 4) Cultural Differences 5) Entrepreneurial Intention	The antecedent of Entrepreneurial Intention is: 1) Prior Experiences 2) Perceived Behavioral Control 3) Subjective Norms 4) Perceived behavioral control and subjective norms are mediated by cultural differences
Yasir et al., (2021)	1) TPB 2) Value-Beliefs-Norms Theory	1) Environmental Value 2) Social Value 3) Consideration of Future Consequences 4) Attitude 5) Social Norms 6) Perceived Behavior 7) Sustainable entrepreneurial Intention	The antecedents of sustainable entrepreneurial intention are Environmental Value, Social Value, Consideration of Future Consequences, Attitude, Social Norms, Perceived Behavior with direct and indirect influence patterns
Soomro et al., (2020)	-	1) Eco-friendly People 2) Green Marketing Factors 3) Changing Consumer Behavior 4) Favorable Market Conditions 5) Sustainable Entrepreneurship	The antecedents of Sustainable Entrepreneurship are Eco-friendly People, Green Marketing Factors, Changing Consumer Behavior, Favorable Market Conditions
Ye et al., (2020)	1) Push-Pull-Mooring Model 2) Institution Theory	IT Knowledge Altruism Market Opportunity Personal Innovativeness Regulatory Environment Normative Support Green Entrepreneurship Switching intention	The antecedents of Green Entrepreneurship Switching intention are IT Knowledge, Altruism, Market Opportunity, Personal Innovativeness, Regulatory Environment, Normative Support
Amouri et al., (2021)	1) Theory Reasoned Action 2) Shapero Theory	1) Technological Propensity 2) Financial Constraints 3) Entrepreneurial Limit 4) Social Business Initiation Desicion	The antecedents of Social Business Initiation Desicion are Technological Propensity, Financial Constraints, Entrepreneurial Limit, with different types of influence.
Chu et al., (2021)	Policy acceptance model which is the development of the technology acceptance model	1) Perceived usefulness 2) Perceived easy to use 3) Green self efficacy 4) Task related green entrepreneurial behavior 5) Proactive green entrepreneurial behavior	1) Perceived usefulness and ease of use on Tasks related to green entrepreneurial behavior and Proactive green entrepreneurial behavior is mediated by green self-efficacy and moderated by Moral reflectiveness. 2) Green self-efficacy is an antecedent of Task-related green entrepreneurial behavior and Proactive green entrepreneurial behavior

References	Theory	Research Variables	Research Finding
Amankwah & Sesen (2021)	TPB dan TRA	<ol style="list-style-type: none"> <li>1) Green entrepreneurship intention</li> <li>2) Education support</li> <li>3) Green consumption commitment</li> <li>4) Green entrepreneurship behavior</li> </ol>	The role of Green entrepreneurship intention towards Green entrepreneurship behavior, moderated by Education support and Green consumption commitment
Saleem et al., (2018)	TPB	<ol style="list-style-type: none"> <li>1) Attitude toward ecopreneurship</li> <li>2) Subjective norms</li> <li>3) Self Efficacy</li> <li>4) Collectivism</li> <li>5) Altruism</li> <li>6) Ecopreneurship intention</li> </ol>	The antecedents of Ecopreneurship intention are Attitude toward ecopreneurship, Subjective norms, Self Efficacy with Collectivism and Altruism as moderator variables
Singh et al., (2021)	TPB	<ol style="list-style-type: none"> <li>1) Attitude</li> <li>2) Subjective Norm</li> <li>3) Perceived Behavior Control</li> <li>4) Religiosity</li> <li>5) Ethical Judgement</li> <li>6) Environment Sustainable Intention</li> </ol>	<ol style="list-style-type: none"> <li>1) The antecedents of Environment Sustainable Intention are Attitude, Subjective Norm, Perceived Behavior Control moderated by the Ethical Judgment variable.</li> <li>2) Meanwhile, the Religiosity variable is related to Environment Sustainable Intention, mediated by attitude.</li> </ol>
Alwakid et al., (2020)	Institusional Theory	<ol style="list-style-type: none"> <li>1) Environment action</li> <li>2) Environment consciousness</li> <li>3) Time Orientation</li> <li>4) Green Entrepreneurship</li> </ol>	The antecedent of Green Entrepreneurship is Environment action and Environment consciousness, by controlling the Time Orientation variable
Cavazos-Arroyo et al., (2017)	TPB	<ol style="list-style-type: none"> <li>1) Entrepreneurial attitude</li> <li>2) Social entrepreneurial self-efficacy</li> <li>3) Subjective norms</li> <li>4) Social Innovation orientation</li> <li>5) Social vision</li> <li>6) Sustainability values</li> <li>7) Financial returns interest</li> <li>8) Social entrepreneurial intention</li> </ol>	<ol style="list-style-type: none"> <li>1) The antecedent of Social entrepreneurial intention is Entrepreneurial attitude, Social entrepreneurial self-efficacy, and Subjective norms.</li> <li>2) Social vision, Sustainability values, and financial returns interest affect social entrepreneurial mediated by Social Innovation orientation and attitude.</li> </ol>

#### 4.2. Green Entrepreneurship Behavior Theory Building

To examine the antecedent variables of green entrepreneurship behavior, the researcher uses a review approach of theories to explain the emergence of green entrepreneurship behavior variables. Based on a review of previous research in [Table 1](#), we identified eight (8) theories that be foundations to explain antecedents of green entrepreneurship behavior. The following ideas are often used to describe the scheme of green entrepreneurship behavior.

#### 4.3. The Reasoned Action Theory

[Fishbein & Ajzen \(1977\)](#) offer a theory to explain behavior variables, The Reasoned Action Theory. This theory assumes that human behavior is based on rational thinking. This



theory states that the intention to act directly affects behavior, and it can be predicted by attitude. Subjective norms and beliefs shape these attitudes.

The reasoned action theory provides a basis for understanding why a business actor does not behave green. Even though they have good intentions, simply because they lack self-confidence or lack control over their behavior, it causes these intentions to not lead to a behavior. Furthermore, as [Fishbein & Ajzen \(1977\)](#) emphasized, based on different experiences and different normative beliefs, people can form different beliefs about the consequences of performing a behavior. These beliefs, in turn, determine subjective attitudes and norms, which then determine appropriate intentions and behavior.

It can better understand behavior by tracing its determinants back to the underlying beliefs, thereby influencing behavior by changing some of these beliefs. The model further explains how goodwill for the environment is not enough to encourage an action. Attitudes and subjective norms contribute to behavioral intentions, which can be used to predict behavior. Subjective norms in this context indicate individuals' beliefs about whether members of their society—family, friends, and coworkers—believe that individuals should or should not participate in certain behaviors. The social environment has been shown to mediate the consequences of environmental attitudes on environmental behavior.

Thus, it can conclude that based on the reasoned action theory, the antecedents of green entrepreneurship behavior are described from a model framework starting from subjective norms and beliefs that will affect the attitude towards green entrepreneurship. This attitude will later affect green entrepreneurship behavior by being mediated by its intention.

#### **4.4. Theory of planned behavior**

The Theory of Planned Behavior is a development of The Theory of Reasoned Action. [Ajzen \(1991\)](#) offers this theory, which states that his interest in that behavior determines a person's behavior. In contrast, a person's interest in behavior (behavioral intention) is a function of a person's attitude towards behavior (attitudes), subjective norm (subjective norm), and behavioral control (perceived behavioral control).

The Theory of Planned Behavior (TPB) is used as a predictor in measuring a person's intentions, which initially were determined by attitudes, subjective norms, and behavioral control. Furthermore, a person's intention towards a particular behavior will decide whether he will perform the behavior or not.

Attitude towards a behavior is a function based on beliefs (beliefs) called behavioral beliefs, namely individual beliefs about positive and or negative consequences that individuals will obtain from performing a behavior (salient outcome beliefs). Although an individual may have many beliefs about the effects of performing a behavior, it can access only a small portion of these beliefs, which are individual beliefs about the consequences obtained from performing a behavior or referred to as salient outcome beliefs.

Precisely, in planned behavior theory, attitude toward a behavior is defined as the degree of an individual's positive or negative assessment of behavior. Attitude toward the behavior is determined by a combination of individual beliefs about the positive and or

negative consequences of performing a behavior (behavioral beliefs) with the individual's subjective value for each result of that behavior (outcome evaluation).

In general, the more individuals assess that behavior will produce positive consequences, the more individuals will favor that behavior. Conversely, the more individuals assess that behavior will have adverse effects, the more individuals will be unfavorable towards the behavior.

Subjective norms are a person's perception of those who are considered to play a role and have expectations for him to do something and the extent of the desire to fulfill these expectations. The concept of subjective norms represents environmental demands or pressures experienced by the individual and shows the individual's belief in the approval of social figures if he commits an act. Subjective norms are formed by two aspects, namely normative beliefs and motivation to meet environmental demands. Normative beliefs are views of other parties that are considered necessary by individuals who suggest individuals display or not display certain behaviors.

Behavioral control refers to the difficulties or conveniences that a person encounters in certain behaviors. Behavioral control plays a role in the Theory of Planned Behavior in two ways, directly and indirectly, based on the rules in a person. Behavioral control plays an indirect role in influencing behavior, namely through intentions towards behavior. In addition, behavioral control can also directly affect behavior.

#### **4.5. Shapero Model Theory**

[Shapero & Sokol \(1982\)](#), advocates a model that manipulates entrepreneurial intentions based on a set of parameters. According to Shapero, techniques for developing intentions tend to vary, and propensity to act can result in wandering weights on some relationships in the model. Therefore, testing for the moderate impact of propensity to serve is necessary. Shapero went on to say that intent might be affected by a certain threshold level. He asserts that attractiveness, practicality, and propensity to act are the main factors influencing one's decision to start a new business. Furthermore, specific apparent desire and perceived self-efficacy are described as the necessary foundations for desire sensitivity and worthiness, respectively.

Shapero's theory builds a model framework for antecedents of green entrepreneurship intention through self-efficacy variables that can be described in three main dimensions: perceived desirability, propensity, and perceived feasibility.

#### **4.6. Resources Based Value Theory**

The Resource-based view is a model that sees resources as the key to superior organizational performance. As one of the originators of the RBV theory, Penrose emphasizes the importance of internal resources for organizational growth ([Hameed et al., 2021](#)). So, if the company lacks resources, it will hinder the organization's growth. RBV theory also emphasizes the importance of internal resources to achieve organizational competitive advantage. Resources mean all things that the organization manages to capture in terms of strengths or weaknesses. Corporate resources can be tangible or intangible. In a broad sense, resources can be defined as all combinations of facilities that can assist the

development of a company's value creation strategy. Includes assets, capabilities, processes, knowledge information, and other supporting attributes. In the general literature, three factors are classified as resources: physical, human, and organizational capital resources (Fichter & Tiemann, 2018).

In the context of green entrepreneurship behavior, the RBV theory contributes to the framework of the antecedent variable model, which is the support of resources to become a green entrepreneur. Becoming a green entrepreneur requires a combination of resources, capital, technological novelty, market knowledge, infrastructure, information sharing, and institutional support. In research on green entrepreneurship behavior using the RBV approach, these variables were identified as antecedents of green entrepreneurship behavior.

#### **4.7. Value-Beliefs-Norms Theory**

Value-Beliefs-Norms (VBN) Theory says that pro-social attitude and personal moral norms are significant predictors of pro-environment behavior. Furthermore, this theory assumes that the influence of values on behavior is mediated by beliefs and subjective norms (Stern, 2000).

People who decide to take environmental-related actions have at least some altruistic or moral reasons to do so. VBN explains that general altruism and personal moral norms play an essential role in shaping green behavior (Dunlap, 1978). VBN theory starts from values that form beliefs, which lead to models that will later build behavior. The results show that a person's values (altruistic, biosphere, egoistic) may influence a person's view to understand and accept that their behavior impacts the environment.

#### **4.8. Traits Theory of Entrepreneurship**

The traits theory of entrepreneurship assumes that personality traits influence entrepreneurship intentions. Personality traits themselves indicate personal characteristics, the form of thoughts, feelings, and behavior. The personality traits of a person vary from one another. Salmony & Kanbach (2021), conducted a literature review study related to differences in personality traits in influencing entrepreneurship. His study concluded that six personality traits are used in research on general topics of entrepreneurship, namely Big five personality traits, need for achievement, innovativeness, entrepreneurial self-efficacy, locus of control, and risk attitude. In the context of green entrepreneurship behavior, these personality trait variables are identified as antecedent variables. They sometimes become mediating/moderating variables from the relationship between antecedent and green entrepreneurship behavior variables.

#### **4.9. Institutional Theory**

The Institutional theory explains that the formation of organizations is due to the pressure of the institutional environment that causes institutionalization. The underlying thought is that an organization must convince the public that the organization is a legitimate and legitimate entity and deserves to be supported. According to Scott (2008), this theory is used to explain the actions and decision-making of individuals or organizations caused by

exogenous factors, external factors, social factors, community expectations factors, and environmental factors.

According to institutional theory and legitimacy theory (a derivative of institutional theory), employers' perceptions of institutions and structures can drive companies to switch to green industries. New insights on the economy and management of green entrepreneurship are having a significant impact on their activities. Entrepreneurs learn to recognize and act on institutional and social norms to gain legitimacy and for the growth and survival of the company (Bruton et al., 2010). Therefore, pro-environmental behavior can be a quest for legitimacy.

It is related to green entrepreneurship. The Institutional theory identifies the role of institutions (both government and educational institutions) in supporting the creation of green entrepreneurship. In addition, this theory also recognizes the role of Environment action and Environment consciousness variables as antecedents of green entrepreneurship (Alwakid et al., 2020).

#### **4.10. Cognitive Dissonance Theory**

Cognitive Dissonance Theory is developed by Leon Festinger on 1957. This theory states that when an individual holds two or more elements of knowledge that are relevant but inconsistent with one another, a state of discomfort is created, and it is called dissonance. Cognitions are elements of knowledge that people have about their behavior, attitude, and environment. There are two cognitive dissonance principles, first, dissonance makes uncomfortable conditions and will motivate someone to eliminate, and second, someone who experiences dissonance tends to avoid the situation that results from more dissonance.

According to Cognitive Dissonance Theory, when an individual is viewing an emerging factor, that factor psychologically tends to conflict between the old cognition and new cognition, and it is called cognitive dissonance. Related to green entrepreneurship, when entrepreneurs hold conflict between 'green entrepreneurship achieve environmental sustainability, and 'green entrepreneurship is risky', they are in a cognitive dissonance condition. And to eliminate that conflict individuals tend to adopt one of the two pathways to obtain psychological balance (Jiang et al., 2020).

It can conclude that the antecedent variables of green entrepreneurship behavior can be classified into several factors, namely psychological factors (values, beliefs, norms, attitudes, perceptions, motivations), personality traits factors, and contextual factors. In detail, the relationship between the building of the theory of green entrepreneurship behavior, and the identified antecedents, can be seen in the following Table 2.

#### **4.11. Research Implication**

The discussion about research on green entrepreneurship intention towards behavior leads to three main factors that influence the intention to become a green entrepreneur. The first factor is the psychological perspective, consisting of values, beliefs, perceptions, norms, attitudes. The second factor, personality, consists of personality traits and self-motivated behavior factors. Two factors in this perspective may influence a person to develop entrepreneurship opportunities that it may encounter or will be determinants of his desire to

become an entrepreneur. The third is the perspective of contextual factors, consisting of cognitive aspects and decision-making processes (Arru, 2020).

Table 2. Theories And Antecedents of Green Entrepreneurship Behavior (2017-2021)

No	Theory	Factor Identification	Antecedents Variable
1	Theory reasoned action	Psychology	1. Subjective norms 2. Beliefs 3. Attitude
2	Theory Planned Behavior	Psychology	1. Attitude 2. Subjective norms 3. Perceived behavior (Self Efficacy)
3	Shapero Model	Psychology	1. Perceived desirability 2. Perceived propensity 3. Perceived feasibility.
4	Resource Based Value	Contextual	1. Entrepreneurship education 2. Commitment to environment 3. University green entrepreneurship support
5	Values-Beliefs_Norms Theory	Psychology	1. Values 2. Beliefs 3. Norms
6	Traits theory Of Personality Entrepreneurship	Psychology	1. Big five personality traits 2. Need of achievement 3. Innovativeness 4. Entrepreneurial self efficacy 5. Locus of control 6. Risk attitude
7	Institutional Theory	Contextual	1. Institutional support 2. Environment action 3. Environment consciousness
8	Cognitive Dissonance Theory	Psychology	1. Greene Recognition 2. Green Disengagement

In addition to the two perspectives above, research in green entrepreneurship intention also examines the theoretical model of planned behavior, which is associated with factors that influence green entrepreneurship intention behavior. Existing studies try to develop a TPB model to explain the relationship between antecedent variables and the intention to green entrepreneurship behavior. Some studies show results in favor of TPB, and some against TPB. Some gap research appears from TPB approach. Tan et al (2013), examined the relationship between self-efficacy and green entrepreneurship intention (GEI). The results showed that not all dimensions have an impact on GEI. Besides, self-efficacy can only give an overall effect of R<sup>2</sup> 35%. The results of this study differ from subsequent studies, which show a positive influence between self-efficacy and GEI variables. Himel et al (2016), examined the relationship between self-efficacy, feasibility, and awareness of GEI. The results showed that self-efficacy had a direct effect on GEI. In line with the research above, Hussain et al (2021) tested the relationship between social networking, self-efficacy, risk propensity, and subjective norm on green entrepreneurship intention based on the theory of planned behavior model. The results show that self-efficacy has a mediating variable role in the relationship between social networking and intentions to green entrepreneurship. Peng et al (2021) also explain the role of the self-efficacy variable as a mediating variable for the

relationship between environmental value variables and sustainable entrepreneurship intention. From the several studies above, it can conclude that self-efficacy directly affects green entrepreneurship intention. In addition, self-efficacy is mediating variable but not a moderating variable for the relationship between one variable and GEI. It can identify the self-efficacy variable with perceived behavior.

Yu & Yu (2017), try to examine the relationship between beliefs, norms, and pro-environment behavior intention. They tried to offer a model of the relationship between variables by developing a model from the TPB, where the relationship between attitude, subjective norm, and perceived behavior did not directly affect intention behavior but was mediated by pro-environmental attitude moderated by personal traits variables. The results showed that the model offered was significantly based on statistical calculations. This result is not in line with the TPB, which explains that the variables of attitude, subjective norm, and perceived behavior are directly related to intention behavior.

Thelken & Jong (2020), examines the impact of value and future orientation on the process of forming an intention to sustainable entrepreneurship. Concerning TPB, the three antecedent variables of TPB are positioned as mediating variables for the relationship between the value variable and future orientation towards intention. The interesting result of this research is that the positive influence of subjective norm variable on intention is not statistically significant or not supported. Contrary to the TPB model, which explains that subjective norm variables positively affect intention.

Hameed et al (2021), tried to examine the variables that influence green behavior by including entrepreneurship education, commitment to the environment, institutional support, and motivation to become an entrepreneur as predictors of GEB. The results show that the entrepreneurship education variable will influence GEB by mediating the commitment variable. Meanwhile, the commitment itself will have a direct effect on GEB. Institutional support has a direct influence on GEB, and entrepreneurial motivation itself does not have a direct impact on GEB. Some of the results of this study are not in line with TPB, where according to TPB, to arrive at behavior, the intention must mediate the attitude variable.

Based on those gap research, although TPB theory is mostly used to explain determinants of green entrepreneurship intention, but there are still open for future research, especially investigating the specific variables from the three aspects TPB related to green entrepreneurship behavior.

Value and culture are also variables that can influence intention. Regarding green entrepreneurship intention, many studies have tried to link these two variables as predictors of green entrepreneurship intention. As is known, value and culture itself is one of the studies that continue to develop by the dynamics of the environment. The topic of Islamic values and culture is still an exciting topic of study. Studies on Islamic values and culture related to green entrepreneurship intention have not been widely studied. From the searches of researchers on Google Scholar and in Proquest, with the keywords Islamic value, green entrepreneurship, sustainability entrepreneurship, ecopreneurship, from 2016-2021, There is



still no research linking Islamic value variables with specific variables of green entrepreneurship. The study is still in the general realm of entrepreneurship intention.

The institutional theory also directed the researcher to examine the government's role in encouraging the growth of green industry development. As a formal institution, government support plays an essential role in the entrepreneurship environment by creating regulatory pressures. Related to this, a greater understanding of the institutional environment, with a particular emphasis on institutional regulations, is an issue and research area that still needs to be developed (Demirel et al., 2019).

Finally, the study on green entrepreneurship still leaves several questions. There are about how the green entrepreneurship business process occurs, how the product innovation process is, how businesses identify their ideas in the market, how to design organizations and their work, what skills to build, and how to differentiate themselves from non-green companies (Haldar, 2019).

## 5. Conclusion

A significant aspect of the review and article synthesis process carried out by researchers shows that articles published in leading academic journals find common ground for defining green entrepreneurship with sustainable entrepreneurship, ecopreneurship, ecology entrepreneurship, and environmental entrepreneurship. Therefore, this study summarizes the antecedents of green entrepreneurship using some of these definitions. The antecedent analysis is carried out with a study approach to the theory that underlies green entrepreneurship's emergence.

Using a review and synthesis of some previous empirical research helps to understand the various theoretical buildings that can be used to explain green entrepreneurship behavior. Then identify the role of the theory in determining the antecedents of green entrepreneurship behavior. Psychological, personality traits and contextual factors were identified as antecedents of green entrepreneurship behavior. This finding can be used to develop a new integrated model to investigate the determinants of green entrepreneurship behavior based on integrated theory.

Researchers feel some limitations of the research, which encourages further research. First, the researchers only used web sources from three leading websites, namely Google Scholar, Science Direct, and Emerald, for five years. So there is a possibility that it can not display all in this study. The study of green entrepreneurship itself is still a study that is developing dynamically, so there may also be concerned with the field of study, whose articles are published on other websites. Second, the theoretical research conducted by the researcher is only limited to the discussion of theories under the research objectives, so the academic debate is also limited to the antecedent issues of green entrepreneurship behavior. If discussed in more depth, many related issues can be analyzed, such as the decision-making process to become green entrepreneurship, implementation of green entrepreneurship practices, etc.

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## Authors' Declaration

### Authors' contributions and responsibilities

The authors made substantial contributions to the conception and design of the study. The authors took responsibility for data analysis, interpretation and discussion of results. The authors read and approved the final manuscript.

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## References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Alvarez-Risco, A., Mlodzianowska, S., García-Ibarra, V., Rosen, M. A., & Del-Aguila-Arcentales, S. (2021). Factors affecting green entrepreneurship intentions in Business University Students in COVID-19 pandemic times: case of Ecuador. *Sustainability*, 13(11), 6447. <https://doi.org/10.3390/su13116447>
- Alwakid, W., Aparicio, S., & Urbano, D. (2020). Cultural antecedents of green entrepreneurship in Saudi Arabia: An institutional approach. *Sustainability*, 12(9), 3673. <https://doi.org/10.3390/su12093673>
- Amankwah, J., & Sesen, H. (2021). On the relation between green entrepreneurship intention and behavior. *Sustainability*, 13(13), 7474. <https://doi.org/10.3390/su13137474>
- Amouri, A., Festa, G., Shams, S. M. R., Sakka, G., & Rossi, M. (2021). Technological propensity, financial constraints, and entrepreneurial limits in young entrepreneurs' social business enterprises: The tunisian experience. *Technological Forecasting and Social Change*, 173, 121126. <https://doi.org/10.1016/j.techfore.2021.121126>
- Arru, B. (2020). An integrative model for understanding the sustainable entrepreneurs' behavioural intentions: an empirical study of the Italian context. *Environment, Development and Sustainability*, 22(4), 3519–3576. <https://doi.org/10.1007/s10668-019-00356-x>
- Bruton, G. D., Ahlstrom, D., & Li, H. (2010). Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice*, 34(3), 421–440. <https://doi.org/10.1111/j.1540-6520.2010.00390.x>
- Cavazos-Arroyo, J., Puente-Díaz, R., & Agarwal, N. (2017). An examination of certain antecedents of social entrepreneurial intentions among Mexico residents. *Revista Brasileira de Gestão de Negócios*, 19(64), 180–199. <https://doi.org/10.7819/rbgn.v19i64.3129>
- Chu, F., Zhang, W., & Jiang, Y. (2021). How does policy perception affect green

- entrepreneurship behavior? An empirical analysis from China. *Discrete Dynamics in Nature and Society*, 2021. <https://doi.org/10.1155/2021/7973046>
- Chygryn, O. (2016). The mechanism of the resource-saving activity at joint stock companies: The theory and implementation features. *International Journal of Ecology and Development*, 31(3), 42–59.
- Cooney, S. (2009). *Build a green small business: Profitable ways to become an ecopreneur*. McGraw-Hill.
- Croston, G. (2009). *Starting green: An ecopreneur's toolkit for starting a green business from business plan to project*. Entrepreneur Press. 324p.
- Demirel, P., Li, Q. C., Rentocchini, F., & Tamvada, J. P. (2019). Born to be green: new insights into the economics and management of green entrepreneurship. *Small Business Economics*, 52(4), 759–771. <https://doi.org/10.1007/s11187-017-9933-z>
- Dhahri, S., Slimani, S., & Omri, A. (2021). Behavioral entrepreneurship for achieving the sustainable development goals. *Technological Forecasting and Social Change*, 165, 120561. <https://doi.org/10.1016/j.techfore.2020.120561>
- Dixon, S. E. A., & Clifford, A. (2007). Ecopreneurship—a new approach to managing the triple bottom line. *Journal of Organizational Change Management*, 20(3), 326–345. <https://doi.org/10.1108/09534810710740164>
- Dunlap, R. E. (1978). The "new environmental paradigm": A proposed instrument and preliminary results/Riley E. Dunlap, Kent Van Liere. *Journal of Environmental Education*, 9(4), 9–19. <https://doi.org/10.1080/00958964.1978.10801875>
- Elkington, J. (2004). Enter the triple bottom line. In *The Triple Bottom Line: Does It All Add Up* (pp. 1–16).
- Farinelli, F., Bottini, M., Akkoyunlu, S., & Aerni, P. (2011). Green entrepreneurship: the missing link towards a greener economy. *Atdf Journal*, 8(3/4), 42–48.
- Fichter, K., & Tiemann, I. (2018). Factors influencing university support for sustainable entrepreneurship: Insights from explorative case studies. *Journal of Cleaner Production*, 175, 512–524. <https://doi.org/10.1016/j.jclepro.2017.12.031>
- Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research. In *Philosophy and Rhetoric* (Vol. 10, Issue 2). Addison-Wesley. <https://people.umass.edu/aizen/f&a1975.html>
- Gevrenova, T. (2015). Nature and characteristics of green entrepreneurship. *Trakia Journal of Sciences*, 13(2), 321–323. <https://doi.org/10.15547/tjs.2015.s.02.068>
- Greco, A., & de Jong, G. (2017). Sustainable entrepreneurship: Definitions, themes and research gaps. In *Sustainable entrepreneurship: definitions, themes and research gaps* (Vol. 10). [https://www.rug.nl/cf/pdfs/cse/wps6\\_angela.pdf](https://www.rug.nl/cf/pdfs/cse/wps6_angela.pdf)
- Haldar, S. (2019). Green entrepreneurship in theory and practice: insights from India. *International Journal of Green Economics*, 13(2), 99–119. <https://doi.org/10.1504/IJGE.2019.103232>
- Hall, J. K., Daneke, G. A., & Lenox, M. J. (2010). Sustainable development and entrepreneurship: Past contributions and future directions. *Journal of Business Venturing*, 25(5), 439–448. <https://doi.org/10.1016/j.jbusvent.2010.01.002>
- Hameed, I., Zaman, U., Waris, I., & Shafique, O. (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), 550. <https://doi.org/10.3390/ijerph18020550>
- Himel, T. H., Muniandy, S. L., & Rahman, A. A. (2016). The relationship between self-efficacy, feasibility and awareness towards green entrepreneurial intention. *Sci. Int. (Lahore)*, 28(2), 2095–2103.
- Hussain, I., Nazir, M., Hashmi, S. B., Di Vaio, A., Shaheen, I., Waseem, M. A., & Arshad, A. (2021). Green and Sustainable Entrepreneurial Intentions: A Mediation-Moderation Perspective. *Sustainability*, 13(15), 8627.

- <https://doi.org/10.3390/su13158627>
- Hussain, I., Nazir, M., Hashmi, S. B., Shaheen, I., Akram, S., Waseem, M. A., & Arshad, A. (2021). Linking green and sustainable entrepreneurial intentions and social networking sites; the mediating role of self-efficacy and risk propensity. *Sustainability*, *13*(13), 7050. <https://doi.org/10.3390/su13137050>
- Jiang, H., Wang, S., Wang, L., & Li, G. (2020). Golden apples or green apples? The effect of entrepreneurial creativity on green entrepreneurship: A dual pathway model. *Sustainability*, *12*(15), 6285. <https://doi.org/10.3390/su12156285>
- Khurshheed, A., Mustafa, F., Fatima, M., & Khalid, F. (2019). Antecedents of entrepreneurial intentions: A cross-country study of northern Europe and the Danube region. *Iranian Journal of Management Studies*, *12*(4), 593–627. <https://doi.org/10.22059/IJMS.2019.265108.673301>
- Kirkwood, J., & Walton, S. (2010). What motivates ecopreneurs to start businesses? *International Journal of Entrepreneurial Behavior & Research*, *16*(3), 204–228. <https://doi.org/10.1108/13552551011042799>
- Liang, C., Ip, C. Y., Wu, S.-C., Law, K. M. Y., Wang, J.-H., Peng, L.-P., & Liu, H.-C. (2019). Personality traits, social capital, and entrepreneurial creativity: comparing green socioentrepreneurial intentions across Taiwan and Hong Kong. *Studies in Higher Education*, *44*(6), 1086–1102. <https://doi.org/10.1080/03075079.2017.1418310>
- Lotfi, M., Yousefi, A., & Jafari, S. (2018). The effect of emerging green market on green entrepreneurship and sustainable development in knowledge-based companies. *Sustainability*, *10*(7), 2308. <https://doi.org/10.3390/su10072308>
- Makower, J., & Pike, C. (2008). *Strategies for the green economy: Opportunities and challenges in the new world of business*. McGraw Hill Professional.
- Muo, I., & Azeez, A. A. (2019). Green Entrepreneurship: Literature Review and Agenda for Future Research. *International Journal of Entrepreneurial Knowledge*, *7*(2). <https://doi.org/10.37335/ijek.v7i2.90>
- Peng, H., Li, B., Zhou, C., & Sadowski, B. M. (2021). How Does the Appeal of Environmental Values Influence Sustainable Entrepreneurial Intention? *International Journal of Environmental Research and Public Health*, *18*(3), 1070. <https://doi.org/10.3390/ijerph18031070>
- Saleem, F., Adeel, A., Ali, R., & Hyder, S. (2018). Intentions to adopt ecopreneurship: moderating role of collectivism and altruism. *Entrepreneurship and Sustainability Issues*, *6*(2), 517–537. [https://doi.org/10.9770/jesi.2018.6.2\(4\)](https://doi.org/10.9770/jesi.2018.6.2(4))
- Salmony, F. U., & Kanbach, D. K. (2021). Personality trait differences across types of entrepreneurs: a systematic literature review. *Review of Managerial Science*, *16*, 713–749. <https://doi.org/10.1007/s11846-021-00466-9>
- Schick, H., Marxen, S., & Freimann, J. (2002). Sustainability issues for start-up entrepreneurs. *Greener Management International*, *38*, 59–70.
- Scott, W. R. (2008). Approaching adulthood: the maturing of institutional theory. *Theory and Society*, *37*(5), 427–442. <https://doi.org/10.1007/s11186-008-9067-z>
- Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. *University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship*.
- Singh, G., Sharma, S., Sharma, R., & Dwivedi, Y. K. (2021). Investigating environmental sustainability in small family-owned businesses: Integration of religiosity, ethical judgment, and theory of planned behavior. *Technological Forecasting and Social Change*, *173*, 121094. <https://doi.org/10.1016/j.techfore.2021.121094>
- Slovik, P. (2011). Market uncertainty and market instability. *Proceedings of the Fifth IFC Conference*, 430–435. <https://www.bis.org/ifc/publ/ifcb34ad.pdf>
- Soomro, B. A., Almahdi, H. K., & Shah, N. (2020). Perceptions of young entrepreneurial

- aspirants towards sustainable entrepreneurship in Pakistan. *Kybernetes*, 50(7), 2134–2154. <https://doi.org/10.1108/K-07-2019-0504>
- Stern, P. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407–424. <https://doi.org/10.1111/0022-4537.00175>
- Tan, K. L., Suhaida, S., & Leong, Y. P. (2013). Self-Efficacy and green entrepreneurship. *IOP Conference Series: Earth and Environmental Science*, 16(1), 12119. <https://doi.org/10.1088/1755-1315/16/1/012119>
- Thelken, H. N., & de Jong, G. (2020). The impact of values and future orientation on intention formation within sustainable entrepreneurship. *Journal of Cleaner Production*, 266, 122052. <https://doi.org/10.1016/j.jclepro.2020.122052>
- Wikaningtyas, S. U., Sulastiningsih, S., & Novitasari, D. (2019). *Pengentasan kemiskinan: Model membangun motivasi menjadi pengusaha ramah lingkungan (Green Entrepreneur)*. STIE Widya Wiwaha.
- Yasir, N., Mahmood, N., Mehmood, H. S., Babar, M., Irfan, M., & Liren, A. (2021). Impact of environmental, social values and the consideration of future consequences for the development of a sustainable entrepreneurial intention. *Sustainability*, 13(5), 2648. <https://doi.org/10.3390/su13052648>
- Ye, Q., Zhou, R., Anwar, M. A., Siddiquei, A. N., & Asmi, F. (2020). Entrepreneurs and environmental sustainability in the digital era: Regional and institutional perspectives. *International Journal of Environmental Research and Public Health*, 17(4), 1355. <https://doi.org/10.3390/ijerph17041355>
- York, J. G., & Venkataraman, S. (2010). The entrepreneur–environment nexus: Uncertainty, innovation, and allocation. *Journal of Business Venturing*, 25(5), 449–463. <https://doi.org/10.1016/j.jbusvent.2009.07.007>
- Yu, T.-Y., & Yu, T.-K. (2017). The moderating effects of students' personality traits on pro-environmental behavioral intentions in response to climate change. *International Journal of Environmental Research and Public Health*, 14(12), 1472. <https://doi.org/10.3390/ijerph14121472>

