

# A Framework of Factors Influencing Intention for Sustainable Entrepreneurship on Micro, Small, And Medium Enterprises (MSMEs): Mediating Effect of Entrepreneurial Opportunity Recognition

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## **Abstract**

The concept of sustainable entrepreneurship has received much attention recently as a remedy for the issue of environmental deterioration. Malaysia's degradation of the environment is an issue that requires global concern. Manufacturing and entrepreneurial endeavours have been shown to impact the issues substantially. Micro, small, and medium-sized enterprises (MSMEs), notably those in Malaysia, must be made aware of sustainable entrepreneurship

due to a lack of knowledge and awareness. Since intention may reflect behaviour, this study aims to identify elements or factors that may influence MSMEs' intentions for sustainable entrepreneurship. The element consists of sustainable attitude, sustainable value, sustainable orientation, social norms, and government legislation. Additionally, this study makes an effort to investigate how opportunity recognition functions as a mediator in the connection.

**Keywords:** Business, Entrepreneurship, Intention, Opportunity recognition, Sustainability

## 1. Introduction

In the last few decades, the degradation of our environment and planet exploitation have accelerated at alarming rates. According to Maurya et al. (2020), environmental degradation is environmental damage via the exploitation of natural resources brought on by both the natural element (natural catastrophe) and the human factor. According to Kamboj et al. (2020), technological advancement, industrialization, and unethical use of natural resources are examples of human activities contributing to natural catastrophes. In addition, Ahuti (2015) confirmed that one of the most important human behaviours that contributed to environmental degradation was industrial and manufacturing activities. Even though several initiatives have raised public knowledge of this problem, people still lack the motivation to take action (Bahşi et al., 2022; Zebra, 2017; Mei et al., 2017). The industrial sector generated roughly 18.16%, according to the United States Environmental Protection Agency (EPA) (2023). In 2019, it was second only to the transportation and energy sectors regarding its contribution to the nation's greenhouse gas emissions at 23%. The United Nations (UN) set 17 Sustainable Development Goals (SDGs) as a reaction to the problem as one of several steps to safeguard and secure a brighter future (National Geographic, 2019). The success of this programme depends on Micro, Small, and Medium-Sized Enterprises (MSME), which make up about 90% of all businesses worldwide (World Economic Forum, 2021).

As a rapidly industrializing nation in Southeast Asia, Malaysia also has environmental issues. In Malaysia, behind power plants and transportation, the industrial sector is the third-largest source of air pollution (Statista Research Department, 2023). To accomplish Malaysia's green growth while enhancing energy sustainability, the Prime Minister of Malaysia unveiled the Twelfth Malaysia Plan (12MP) (Kementerian Ekonomi, 2021). The fact that 97.2% of all firms in Malaysia are MSMEs is one of the reasons why these companies should be concerned with sustainable ideas. 5.3% of MSMEs in Malaysia are in the manufacturing sector, according to SME Corp (2020). According to Nik Zam et al. (2017), applying the sustainable idea still has to be routinely compared to bigger firms, despite several initiatives encouraging MSMEs to embrace it.

This study aims to determine factors that may influence MSMEs' intentions for sustainable entrepreneurship. Since environmental degradation has become a more significant problem in recent years, some studies have revealed that manufacturing and entrepreneurial activities contribute to these problems (Kui & Lin, 2019; Wang & Dong, 2019; Zhang et al., 2019). According to the Department of Statistics Malaysia (2021), manufacturing was the main cause of the 79% increase in the volume of scheduled waste in 2020 compared to 2019 and produced 2.9% of Malaysia's pollution emissions. Nevertheless, sustainability has been

established and strengthened to control and lessen environmental issues. However, this idea still has to develop to the level of MSMEs (Tunjungsari et al., 2021).

As a result, many academics have been interested in the factors that may motivate these MSMEs to engage in sustainable entrepreneurship (Koe & Majid, 2014; Majid et al., 2017; Vuorio et al., 2018). According to Anand et al. (2021), the commonly used factors may be divided into internal and exterior categories. These two groups, nevertheless, have never been examined together. In previous research, attitude (Koe et al., 2015) and value (Majid et al., 2017) were frequent internal components. On the other hand, external influences were based on institutional theories, including sustainable orientation (Koe & Majid, 2014), societal norms (Ahmad et al., 2020), and government support and legislation (George et al., 2016). Consequently, this study aims to combine internal and external factors into a single model.

In addition, this study also attempts to examine the relationship's mediating role for opportunity recognition. There has only been a small amount of research on mediating factors in relationships. Opportunity recognition will operate as a mediator between internal and external elements and the intention of sustainable entrepreneurship, according to Ryu and Kim (2020) and George et al. (2016). However, academics still need to take into account sustainable entrepreneurship, particularly among MSMEs, in the majority of research on opportunity recognition (Hanohov & Baldacchino, 2017). This research attempts to fill the existing knowledge gap on the factors driving sustainable entrepreneurial intention and how opportunity recognition may influence it by integrating these components into a cohesive framework.

Generally speaking, the purpose of the current study is to examine the relationship between internal (sustainable attitude, sustainable value) and external (sustainable orientation, social norms, government legislation) factors and sustainable entrepreneurship intention among MSMEs in Malaysia, as well as the mediating role of opportunity recognition in the relationship. Thus, by examining the connections between internal factors (sustainable attitude, sustainable value), external factors (sustainable orientation, social norm, government), and the intention of sustainable entrepreneurship while examining the mediating effect of opportunity recognition, this study should achieve the following objectives.

## **2. Literature Review**

In 75 countries, there are 50 ways to define a small corporation (Berisha & Pula, 2015). In Malaysia, the term "SMEs" was defined in terms of the total number of full-time employees and annual sales turnover of the company. However, due to the proliferation and rapid rise in knowledge about entrepreneurship in Malaysia, the term "MSMEs" was first created in 2016 to characterize each type of business.

### *2.1 Entrepreneurial Intention*

All actions must begin with intent, and entrepreneurship is no exception to this rule. According to Ajzen (1985), intention indicates that a person is willing to attempt and exert effort to carry out the behaviour they intend to carry out. Thus, a potential entrepreneur's

subjective attitude and expectations regarding whether or not to engage in entrepreneurial activity constitute their entrepreneurial intention (Krueger et al., 2000). The objective of sustainable entrepreneurship is a person's commitment to launch a new business in the future that creates value for the economy, society, and the environment (Agu et al., 2021). Entrepreneurial intention is frequently evaluated using the Theory of Planned Behaviour (Ajzen, 1991) and the Institutional Theory of intention (Wannamakok & Liang, 2019; Zaman et al., 2021).

### *2.2 Theory of Planned Behaviour*

Ajzen (1991) asserts that an individual's intention may be deduced from how many obstacles they are willing to overcome and how much work they will expend to carry out a planned behaviour. The TBP model proposes three categories of beliefs: behavioural, represented by attitude; normative, represented by subjective norm; and control, represented by perceived behavioural control. The TPB model is the primary theory-driven framework for evaluating intention in certain academic research in sustainable studies (Mamun et al., 2017; Nuringsih, 2019; Swaim et al., 2014). Additionally, by extending the framework of the TPB model, some research has been done to explain behavioural intention better (Thelken & de Jong, 2020; Yasir et al., 2021).

### *2.3 Institutional Theory*

A wide range of research connecting the Institutional Theory's ideas to the study of sustainable entrepreneurship is available in addition to TPB. Meyer and Rowan (1977) created the Institutional Theory to examine how symbolic behaviour and outside influences impact organizational development and transformation more than functional concerns (Greve & Argote, 2015). According to Debroux (2010), the Institutional Theory focuses on how social, economic, and political factors interact and how they achieve organizational legitimacy. Additionally, Scott (2005) emphasized that the Institutional Theory is a social framework comprising normative, regulatory, and cultural-cognitive aspects that stabilize the organization. While institution theory is commonly used to examine entrepreneurial purpose (Su et al., 2017; Wannamakok & Liang, 2019; Zaman et al., 2021), sustainable entrepreneurship, particularly in MSMEs, needs to be given more credit.

### *2.4 Sustainable Attitude and Intention of Sustainable Entrepreneurship*

According to Ajzen (1991), attitude is the degree to which a person evaluates or appraises the in-issue behaviour favourably or unfavourably. In addition, attitudes are a conscious or unconscious mental state that, in reaction to a circumstance, includes emotions (such as sentiments or beliefs) and a tendency to react or behave in a particular way (Altmann, 2008). For career advancement and moral behaviour, it is important to have a good entrepreneurial attitude. Vamvaka et al. (2020) assert that attitude, particularly in entrepreneurship, is the strongest predictor of intention. As these views may predict a person's future entrepreneurial actions, it also reveals if a person has a positive or negative attitude towards being an entrepreneur (Soomro et al., 2021).

Various studies found that attitudes toward the intention of sustainable business are often

positive (Koe et al., 2015; Majid et al., 2017). Attitudes, particularly sustainable attitudes, greatly influence the intention of sustainable entrepreneurship in MSMEs. Due to findings from earlier research on sustainable attitude as a component that increases sustainable behaviour and intention, an individual, especially MSME owners or managers in Malaysia, has demonstrated a considerable attitude towards sustainable concepts and implemented them into the organization. In research by Vuorio et al. (2018), it was discovered that those with the more favourable belief of sustainable entrepreneurial orientation were more likely to be drawn to it for compassionate reasons than selfish or intrinsic ones. Additionally, Swaim et al. (2014) discovered that attitude is the most important element influencing sustainable behaviour, even among the students in their study sample.

### *2.5 Sustainable Value and Intention of Sustainable Entrepreneurship*

Value is a motivator, a catalyst for self-expression, and the driving force behind entrepreneurial action. According to Hanel and colleagues (2002), human values are trans-situational, guiding principles and abstract goals. Despite significantly influencing it, value is an essential measure of entrepreneurial behaviour towards sustainable business (Peng et al., 2021). A sense of sustainable value may influence, push, and encourage entrepreneurs to apply sustainable practices in the business. Sustainable value is the concept that integrates the economic, environmental, and social aspects of sustainability and supports both the firm and the environment in which it operates (Macuda & Fijalkowska, 2020).

According to Yasir et al. (2021), the two components of self-transcendence and self-enhancement values comprise personal value for sustainable enterprise. However, it was pointed out that value and sustainable intention are indirectly related. When the benefits outweigh the perceived costs, those who value self-transcendence or who place a strong emphasis on self-enhancement make decisions based on risk and reward. These values influence ideas, beliefs, possibilities, and behaviours connected to the environment. The intention toward sustainable business is influenced by sustainable value, claim Majid et al. (2017). According to Peng et al. (2021), environmental value further encourages business owners to consider incorporating sustainability into their new enterprises. Their research also showed that an entrepreneur or potential entrepreneur with a strong commitment to the environment is more motivated to launch a sustainable business or integrate sustainability into an already operating one.

### *2.6 Sustainable Orientation and Intention of Sustainable Entrepreneurship*

Culture is one aspect that influences a person's behaviour and decision-making, according to Institutional Theory. Glazer and Karpati (2014) provided evidence in support of their claim by asserting that culture and society are likely to influence a person's attention when gathering information about a situation that calls for decision-making, how they evaluate the information, and the kinds of justifications people provide for their choice. The Seven Dimensions of Culture were developed by Trompenaars and Hampden-Turner (1998) to help people better understand culture and how it affects various situations, particularly business. How culture links to nature as one of the components of culture has been explained using the human-nature connection orientation. It shows how entrepreneurship and sustainability are

related and how sustainability becomes a cultural ideal and way of life. Furthermore, Yoon & Tello (2009) asserted that a person's culture may affect their perspective on corporate social responsibility.

Sung and Park (2018) define sustainable orientation as a person's concern for environmental and social responsibility. It includes questions that evaluate an individual's fundamental attitudes and character qualities in various fields. According to Bapoo et al. (2022), sustainable orientation is thus a beneficial driver because it encourages an organization's decision to adopt sustainable practices. Ahmad et al. (2020) assert that the presence of management committed to sustainability significantly impacts sustainable practice. The findings of Sung & Park (2018), who discovered that those who are environmentally and sustainably minded are more likely to identify possibilities and act on them, support this. The perspective of the top management on the interactions between people and nature inspires them to embrace sustainable practices (Koe & Majid, 2014). This suggests that the culture of sustainable orientation will influence people's or organizations' intentions to engage in sustainable entrepreneurship.

### *2.7 Social Norms and Intention of Sustainable Entrepreneurship*

The TPB describes social norms as "perceived societal pressure to engage in or prevent from engaging in a certain behaviour" (Ajzen, 1991). According to Koe & Majid (2014), Koe et al. (2015), and Swaim et al. (2014), social norms are the beliefs or perspectives of various reference groups, such as families, friends, coworkers, and business partners, that may affect an entrepreneur's decisions in the company, particularly concerning the sustainability concept. Connect with and emphasize the social perspective in order to gain this support and a greater comprehension of the market or opportunity. According to Fehr & Fischbacher (2004), "standards of conduct based on commonly held opinions as to how specific group members ought to act in a certain scenario" is the most typical description of social norms. "Social norms" refers to the standards, attitudes, and ideas acceptable in a specific social group.

A number of times, the social norms that have been modified to fit the institutional theory have been employed as one of the outside forces that might influence businesspeople to achieve sustainable growth and transformation (Anand et al., 2021). Even though there have been several studies on social norms and intentions, particularly sustainable entrepreneurial intention, there are some inconsistencies or inconsistent results. Social norms, according to Koe and Majid (2014), have a favourable impact on an entrepreneur's propensity for or incentive to engage in sustainable entrepreneurship. Majid et al. (2017) also discovered that fostering social norms is crucial for developing sustainable businesses. Peng et al. (2021) found a positive correlation between societal norms and the founding of sustainable businesses. However, Koe et al. (2015) and Ahmad et al. (2020) found that MSME owner-managers in Malaysia were unaffected by societal norms when it came to sustainable entrepreneurship.

### *2.8 Government Legislation and Intention of Sustainable Entrepreneurship.*

According to Gast et al. (2017), three variables might influence sustainably doing business,

one of which is macro-level influences, such as regulations or laws put in place by the government or non-governmental organizations. According to Davis (2022), governmental entities may support businesses by offering financial, advisory, and other assistance. Furthermore, Lutz et al. (2007) asserted that business owners might use government sustainability legislation as a guide to safeguard and improve the environment. Legislation, therefore, encouraged enterprises to engage in sustainable development without considering future issues through laws, programmes, plans, and strategies (Gorica et al., 2012).

According to Obaji and Olugu (2014), government policy and assistance promote entrepreneurship by creating an atmosphere that supports company owners. Additionally, governments may help entrepreneurs pursue sustainable entrepreneurship by providing MSMEs with the necessary support and enacting certain legislation (Ahmad et al., 2020; Majid et al., 2017). Gast et al. (2017) also pointed out that one aspect that might encourage business owners to engage in environmentally friendly entrepreneurship is centralized institutions created by governmental authorities by supporting the formation of environmentally friendly projects. Government programmes and assistance may therefore inspire entrepreneurs to seek sustainable concepts.

### *2.9 Opportunity Recognition as a Mediating Effect*

One definition of entrepreneurship is the capacity to identify and seize strong opportunity (Diandra & Azmy, 2020). Ryu and Kim (2020) claim that for a start-up business, opportunity recognition is a cognitive process that involves planning, creating an idea, and resolving problems. According to Hanohov and Baldacchino (2017), sustainable entrepreneurship is impacted by identifying possibilities based on other factors, including knowledge of natural and entrepreneurial environments, social circumstances, and motivation towards oneself or others. Furthermore, Gast et al. (2017) pointed out that the dynamics driving sustainable entrepreneurship may be categorized using opportunity- and necessity-based entrepreneurship.

Hassan et al. (2020) found that opportunity recognition considerably increases entrepreneurial intention, showing that entrepreneurial attitudes will transfer into actual activities with a different intensity than opportunity recognition. Ryu & Kim (2020) also discovered that opportunity recognition had a favourable impact on entrepreneurial intention. On the other hand, Hanohov and Baldacchino (2017) contend that the sustainability of the opportunity has an impact on the sustainability of the entrepreneurial practice.

According to George et al. (2014), social norms, cultural and political support, and legislation are environmental factors that influence the recognition of entrepreneurial opportunities. Sarma et al. (2022) asserted that internal and external variables may impact how business owners see chances for sustainable growth. There is minimal proof that these factors influence how opportunities are identified. Recognition of opportunities is considered to influence intention. Hanohov and Baldacchino (2017) noted that other factors also influence it. For instance, Dahalan et al. (2015) investigated how entrepreneurial intention is influenced by attitude as mediated by opportunity recognition. The relationship between sustainable orientation and sustainable entrepreneurship intention was investigated, and opportunity

recognition was found to be a mediator (Bapoo et al., 2022; Sung & Park, 2018). They all demonstrated that opportunity recognition had a favourable effect when viewed in the context of the link between these factors and entrepreneurial intention in general.

### 3. Conceptualization Framework

Figure 1 depicts the conceptualization framework developed for this study. The framework comprises the following components adapted from TPB and Institutional Theory as the factors that are believed to be related to the intention of sustainable entrepreneurship among MSMEs: sustainable attitude, sustainable value, sustainable orientation, social norms, and government legislation while opportunities recognition mediates the connection.

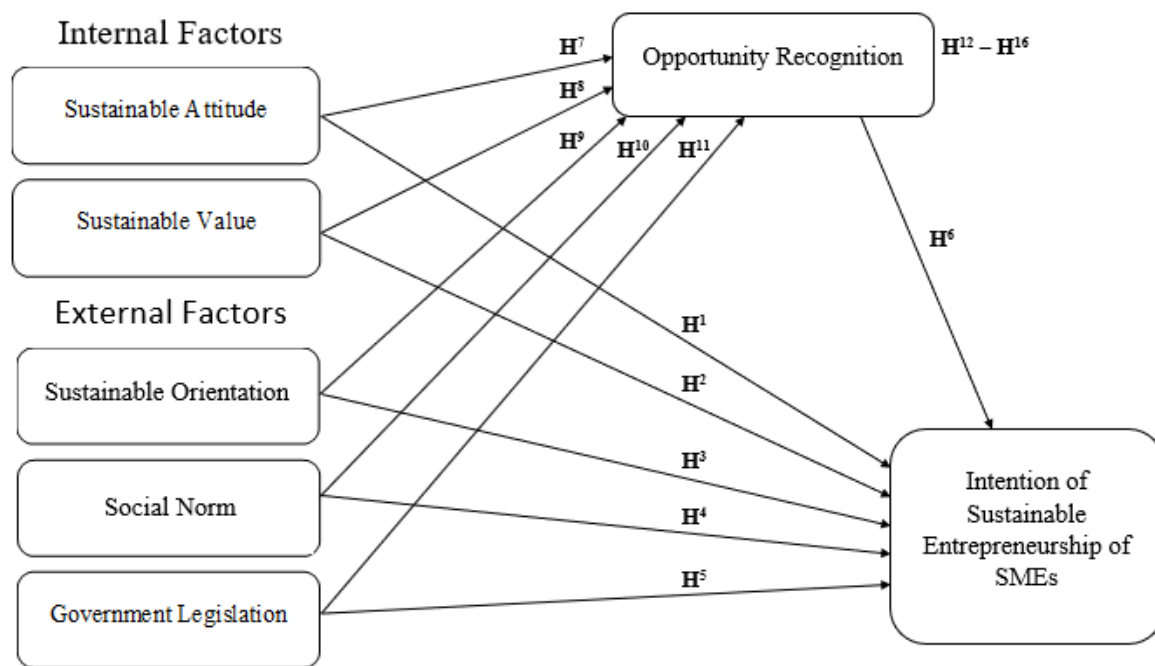


Figure 1. Conceptualization framework

### 4. Hypotheses of the Study

The research aims to identify the relationship among sustainable attitude, sustainable value, sustainable orientation, social norms, government legislation, opportunity recognition, and intention of sustainable entrepreneurship on MSMEs.

H1: There is a positive relationship between sustainable attitude and sustainable entrepreneurship intention on MSMEs in Malaysia.

H2: There is a positive relationship between sustainable value and sustainable entrepreneurship intention on MSMEs in Malaysia.

H3: There is a positive relationship between sustainable orientation and sustainable entrepreneurship intention on MSMEs in Malaysia.



H4: There is a positive relationship between social norms and sustainable entrepreneurship intention on MSMEs in Malaysia.

H5: There is a positive relationship between government legislation and sustainable entrepreneurship intention on MSMEs in Malaysia.

H6: There is a positive relationship between opportunity recognition and sustainable entrepreneurship intention on MSMEs in Malaysia.

H7: There is a relationship between a sustainable attitude and opportunity recognition

H8: There is a relationship between sustainable value and opportunity recognition

H9: There is a relationship between sustainable orientation and opportunity recognition

H10: There is a relationship between social norms and opportunity recognition

H11: There is a relationship between government legislation and opportunity recognition

H12: Opportunity recognition mediates the relationship between sustainable attitude and sustainable entrepreneurship intention.

H13: Opportunity recognition mediates the relationship between sustainable value and sustainable entrepreneurship intention.

H14: Opportunity recognition mediates the relationship between sustainable orientation and sustainable entrepreneurship intention.

H15: Opportunity recognition mediates the relationship between social norms and sustainable entrepreneurship intention.

H16: Opportunity recognition mediates the relationship between governmental legislation and sustainable entrepreneurship intention.

## **5. Implication of the Study**

Identify grants or other financial support (and the source, if appropriate) for your study; do not precede grant numbers by No. or #. Next, acknowledge colleagues who assisted in conducting the study or critiquing the manuscript. Do not acknowledge the persons routinely involved in the review and acceptance of manuscripts <sup>≠</sup> peer reviewers or editors, associate editors, and consulting editors of the journal in which the article is to appear. In this paragraph, also explain any special agreements concerning authorship, such as if authors contributed equally to the study. End this paragraph with thanks for personal assistance, such as in manuscript preparation.

## **6. Direction for the Future Research**

As the scope of this study is restricted to manufacturing MSMEs in Malaysia, future researchers can broaden the sample size to include other industries like services or transportation. As the scope of this study is restricted to manufacturing MSMEs in Malaysia, future researchers can broaden the sample size to include other industries like services or

transportation. This will make it possible for future studies to determine how sustainable entrepreneurship is being used and how other industries want to adopt it. In addition, further research may be carried out using the qualitative approach of data collection to gain a deeper knowledge of every element considered to influence the intention of sustainable entrepreneurship. Further studies also may be done to find out how intention, which is impacted by both internal and external influences, might become real behaviour.

## 7. Conclusion

In conclusion, this conceptual research presents the general framework for the investigation into the internal and external factors that could influence the intention of sustainable entrepreneurship in Malaysia, particularly MSMEs, as well as the mediating role of opportunity recognition. According to earlier studies, Malaysian MSMEs lacked initiative and were still unfamiliar with the concept of sustainable entrepreneurship. Even though there are several research on this subject, there are very few that use this intricate framework to examine MSMEs that manufacture goods in Malaysia. The paper also discusses numerous research done on similar subjects to further provide a theoretical framework for the subject. The Partial Least Squares Structural Equation Modelling (PLS-SEM) Method will be used to analyse the data gathered as part of the research's quantitative methodology. The research will be able to show how sustainable attitudes, sustainable values, sustainable orientation, social norms, government legislation, opportunity recognition, and intentions in MSMEs are related. This information will be useful to upcoming researchers, business owners, and the government as it will bring us one step closer to achieving sustainable entrepreneurship.

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## References

- Agu, A. G., Kalu, O. O., Esi-Ubani, C. O., & Agu, P. C. (2021). Drivers of sustainable entrepreneurial intentions among university students: an integrated model from a developing world context. *International Journal of Sustainability in Higher Education*, 22(3), 659-680. <https://doi.org/10.1108/ijshs-07-2020-0277>
- Ahmad, N. H., Rahman, S. A., Rajendran, N. L. K. A., & Halim, H. A. (2020). Sustainable entrepreneurship practices in Malaysian manufacturing SMEs: the role of individual, organisational and institutional factors. *World Review of Entrepreneurship, Management, and Sustainable Development*, 16(2), 153. <https://doi.org/10.1504/wremsd.2020.105986>
- Ahuti, S. (2015). INDUSTRIAL GROWTH AND ENVIRONMENTAL DEGRADATION. *Environmental Science*, 1(5), 2454-9916.
- Ajzen, I. (1985). *From Intentions to Actions: A theory of planned behavior*. In Springer eBooks. pp. 11-39. [https://doi.org/10.1007/978-3-642-69746-3\\_2](https://doi.org/10.1007/978-3-642-69746-3_2)

- 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)
- Altmann, T. K. (2008). Attitude: a concept analysis. *Nursing Forum*, 43(3), 144-150. <https://doi.org/10.1111/j.1744-6198.2008.00106.x>
- Anand, A., Argade, P., Barkemeyer, R., & Salignac, F. (2021). Trends and patterns in sustainable entrepreneurship research: A bibliometric review and research agenda. *Journal of Business Venturing*, 36(3), 106092. <https://doi.org/10.1016/j.jbusvent.2021.106092>
- Bahşi, N., Budak, D. B., Zaimoglu, Z., & Kaya, A. (2022). *Attitudes and Behaviors of People about Environment in Adana Province, Turkey*. Research Square (Research Square). <https://doi.org/10.21203/rs.3.rs-1521408/v1>
- Bapoo, M. A., Tehseen, S., Haider, S. A., & Motaghi, H. (2022). *Sustainability Orientation and Sustainable Entrepreneurship Intention: The Mediating Role of*. ResearchGate. [Online] Available: [https://www.researchgate.net/publication/356634652\\_Sustainability\\_Orientation\\_and\\_Sustainable\\_Entrepreneurship\\_Intention\\_The\\_Mediating\\_Role\\_of\\_Entrepreneurial\\_Opportunity\\_Recognition](https://www.researchgate.net/publication/356634652_Sustainability_Orientation_and_Sustainable_Entrepreneurship_Intention_The_Mediating_Role_of_Entrepreneurial_Opportunity_Recognition)
- Berisha, G., & Pula, J. S. (2015). Defining Small and Medium Enterprises: a critical review. *Academic Journal of Business, Administration, Law, and Social Sciences*, 1(2), 17-28. <http://iipcccl.org/wp-content/uploads/2015/03/Ajbals-17-28.pdf>
- Dahalan, N., Jaafar, M., & Rosdi, S. a. M. (2015). Attitude and Entrepreneurial Intention Among Rural Community: the Mediating Role of Entrepreneurial Opportunity Recognition. *SHS Web of Conferences*, 18, 01005. <https://doi.org/10.1051/shsconf/20151801005>
- Davis, M. (2022). *Government regulations: Do they help businesses?* Investopedia. [Online] Available: <https://www.investopedia.com/articles/economics/11/government-regulations.asp>
- Debroux, P. (2010). *The rising tide of entrepreneurship*. In Elsevier eBooks. pp. 21-45. <https://doi.org/10.1016/b978-1-84334-398-1.50002-1>
- Dosm. (2021). *Department of Statistics Malaysia*. [Online] Available: [https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=162&bul\\_id=VFRCS EtSRlRWWmxoNlRLTTYrb1FVdz09&menu\\_id=NWVEZGhEVINMeitaMHNzK2htRU05dz09](https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=162&bul_id=VFRCS EtSRlRWWmxoNlRLTTYrb1FVdz09&menu_id=NWVEZGhEVINMeitaMHNzK2htRU05dz09)
- Fehr, E., & Fischbacher, U. (2004). Third-party punishment and social norms. *Evolution and Human Behavior*, 25(2), 63-87. [https://doi.org/10.1016/s1090-5138\(04\)00005-4](https://doi.org/10.1016/s1090-5138(04)00005-4)
- Gast, J., Gundolf, K., & Cesinger, B. (2017). Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. *Journal of Cleaner Production*, 147, 44-56. <https://doi.org/10.1016/j.jclepro.2017.01.065>
- George, N. M., Parida, V., Lahti, T., & Wincent, J. (2014). A systematic literature review of

entrepreneurial opportunity recognition: insights on influencing factors. *International Entrepreneurship and Management Journal*, 12(2), 309-350.

<https://doi.org/10.1007/s11365-014-0347-y>

Glazer, S., & Karpati, T. (2014). *The role of culture in decision making*. ResearchGate. [Online] Available:

[https://www.researchgate.net/publication/293117922\\_The\\_role\\_of\\_culture\\_in\\_decision\\_making](https://www.researchgate.net/publication/293117922_The_role_of_culture_in_decision_making)

Gorica, K., Kripa, D., & Zenelaj, E. (2012). The role of local government in sustainable development. *Acta Universitatis Danubius: Oeconomica*, 8(2), 139-155. [Online] Available:

<https://doaj.org/article/105ebb508297476cbfd5f71af149f65e>

Greve, H. R., & Argote, L. (2015). *Behavioral theories of organization*. In Elsevier eBooks. pp. 481-486. <https://doi.org/10.1016/b978-0-08-097086-8.73121-7>

Hanel, P. H. P., Foad, C., & Maio, G. R. (2021). *Attitudes and values*. Oxford Research Encyclopedia of Psychology. <https://doi.org/10.1093/acrefore/9780190236557.013.248>

Hanohov, R., & Baldacchino, L. (2017). Opportunity recognition in sustainable entrepreneurship: an exploratory study. *International Journal of Entrepreneurial Behaviour and Research*, 24(2), 333-358. <https://doi.org/10.1108/ijeb-12-2015-0275>

Hassan, A., Saleem, I., Anwar, I., & Hussain, S. (2020). The entrepreneurial intention of Indian university students: the role of opportunity recognition and entrepreneurship education. *Education and Training*, 62(7/8), 843-861. <https://doi.org/10.1108/et-02-2020-0033>

Kamboj, N., Bisht, A., Kamboj, V., & Pandey, N. (2020). *Role of natural disasters in environmental degradation: An overview*. In Agro Environ Media - Agriculture and Environmental Science Academy, Haridwar, India eBooks. pp. 21-35.

<https://doi.org/10.26832/aesa-2020-edcrs-02>

Kementerian Ekonomi. (2021). Twelfth Malaysia Plan (12MP). *MyGovernment*. [Online] Available: <https://www.malaysia.gov.my/portal/content/31186>

Koe, W., & Majid, I. A. (2014). Socio-Cultural Factors and Intention towards Sustainable Entrepreneurship. *Eurasian Journal of Business and Economics*, 7(13), 145-156.

Koe, W., Omar, R., & Sa'ari, J. R. (2015). Factors influencing propensity to sustainable entrepreneurship of SMEs in Malaysia. *Procedia - Social and Behavioral Sciences*, 172, 570-577. <https://doi.org/10.1016/j.sbspro.2015.01.404>

Krueger, N., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411-432.

[https://doi.org/10.1016/s0883-9026\(98\)00033-0](https://doi.org/10.1016/s0883-9026(98)00033-0)

Kui, L., & Lin, B. (2019). Research on influencing factors of environmental pollution in China: A spatial econometric analysis. *Journal of Cleaner Production*, 206, 356-364.

<https://doi.org/10.1016/j.jclepro.2018.09.194>

Lutz, Schlange, E., & Schlange, L. (2007). *What drives sustainable entrepreneurs?* Research Gate. [Online] Available:

[https://www.researchgate.net/publication/326543603\\_What\\_Drives\\_Sustainable\\_Entrepreneurs](https://www.researchgate.net/publication/326543603_What_Drives_Sustainable_Entrepreneurs)

Macuda, M., & Fijałkowska, J. (2020). *Value creation via corporate social responsibility*. In IGI Global eBooks. pp. 214-236. <https://doi.org/10.4018/978-1-7998-2193-9.ch011>

Majid, I. A., Latif, A., & Koe, W. (2017). SMEs' Intention towards Sustainable Entrepreneurship. *European Journal of Multidisciplinary Studies*, 4(3), 24. <https://doi.org/10.26417/ejms.v4i3.p24-32>

Mamun, A. A., Nawati, N. C., Mohiuddin, M., Shamsudin, S. F. F. B., & Fazal, S. A. (2017). Entrepreneurial intention and startup preparation: A study among business students in Malaysia. *Journal of Education for Business*, 92(6), 296-314.

<https://doi.org/10.1080/08832323.2017.1365682>

Maurya, P. K., Ali, S., Ahmad, A., Zhou, Q., Castro, J., Khane, E., & Ali, A. (2020). *An introduction to environmental degradation: Causes, consequence, and mitigation*. In *Agro Environ Media - Agriculture and Environmental Science Academy*, Haridwar, India eBooks. pp. 1-20. <https://doi.org/10.26832/aesa-2020-edcrs-01>

Mei, N. S., Choong, W. W., & Ahamad, R. (2017). Public environmental awareness and behaviour in Malaysia. *Asian Journal of Quality of Life*, 2(5), 43-53.

<https://doi.org/10.21834/ajqol.v2i5.10>

Meyer, J. S., & Rowan, B. G. (1977). Institutionalized organizations: formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.

<https://doi.org/10.1086/226550>

National Geographic. (2019, September 30). *Sustainable development goals*. [Online] Available: <https://www.nationalgeographic.org/article/sustainable-development-goals/>

Nik Zam, N.-W., Siti Haliza, A., & Mustaffa, M. Z. (n.d.). Environmental Reporting Practice By SMEs In Malaysia | UPM SCHOOL OF BUSINESS AND ECONOMICS. Global Conference on Business and Economics Research (GCBER) 2017. [Online] Available: [https://econ.upm.edu.my/content/environmental\\_reporting\\_practice\\_by\\_smes\\_in\\_malaysia-35593](https://econ.upm.edu.my/content/environmental_reporting_practice_by_smes_in_malaysia-35593)

Nuringsih, N. M. K. (2019). Sustainable Entrepreneurial Intention: The Perceived of Triple Bottom Line among Female Students. *Jurnal Manajemen - Fakultas Ekonomi Universitas Tarumanagara*, 23(2), 168. <https://doi.org/10.24912/jm.v23i2.472>

Obaji, N. O. (2014). The role of government policy in entrepreneurship development. *Science Journal of Business and Management*, 2(4), 109.

<https://doi.org/10.11648/j.sjbm.20140204.12>

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>

Ryu, P., & Kim, D. (2020). Moderating effect of gender on the opportunity recognition and entrepreneurial intention. *Entrepreneurship and Sustainability Issues*, 8(1), 725-740.

[https://doi.org/10.9770/jesi.2020.8.1\(49\)](https://doi.org/10.9770/jesi.2020.8.1(49))

Sarma, S., Attaran, S., & Attaran, M. (2022). Sustainable entrepreneurship: Factors influencing opportunity recognition and exploitation. *The International Journal of Entrepreneurship and Innovation*, 146575032210930.

<https://doi.org/10.1177/14657503221093007>

Scott, W. R. (2005). *Institutional Theory: contributing to a theoretical research program*. ResearchGate. [Online] Available:

[https://www.researchgate.net/publication/265348080\\_Institutional\\_Theory\\_Contributing\\_to\\_a\\_Theoretical\\_Research\\_Program](https://www.researchgate.net/publication/265348080_Institutional_Theory_Contributing_to_a_Theoretical_Research_Program)

SME Corp. (2020, February 11). *Profile of MSMEs in 2016-2021*. [Online] Available:

<https://www.smeCorp.gov.my/index.php/en/policies/2020-02-11-08-01-24/profile-and-importance-to-the-economy>

Soomro, B. A., Memon, M., & Shah, N. (2020). Attitudes towards entrepreneurship among the students of Thailand: an entrepreneurial attitude orientation approach. *Journal of Education and Training*, 63(2), 239-255. <https://doi.org/10.1108/et-01-2020-0014>

Statista. (2023, June 20). U.S. gross domestic product contributions 2000-2021, by sector. [Online] Available:

<https://www.statista.com/statistics/270001/distribution-of-gross-domestic-product-gdp-across-economic-sectors-in-the-us/>

Statista Research Department. (2023, January 11). *Malaysia: particulate matter emissions / Statista. Statista*. [Online] Available:

<https://www.statista.com/statistics/796381/particulate-matter-emissions-malaysia/>

Su, J., Zhai, Q., & Karlsson, T. (2017). Beyond Red Tape and Fools: Institutional Theory in Entrepreneurship Research, 1992-2014. *Entrepreneurship Theory and Practice*, 41(4), 505-531. <https://doi.org/10.1111/etp.12218>

Sung, C. S., & Park, J. Y. (2018). Sustainability Orientation and Entrepreneurship Orientation: Is There a Tradeoff Relationship between Them? *Sustainability*, 10(2), 379.

<https://doi.org/10.3390/su10020379>

Swaim, J. A., Maloni, M. J., Napshin, S., & Henley, A. B. (2013). Influences on student intention and behavior toward environmental sustainability. *Journal of Business Ethics*, 124(3), 465-484. <https://doi.org/10.1007/s10551-013-1883-z>

Thelken, H., & 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>

Trompenaars, A., & Hampden-Turner, C. (1998). *Riding the waves of culture : understanding cultural diversity in global business*. In McGraw-Hill eBooks. [Online] Available: <http://ci.nii.ac.jp/ncid/BA35387396>

Tunjungsari, H. K., Selamat, F., & Chairy, C. (2021). *Sustainable Entrepreneurship in SMEs: The Case of Creative-Industry SMEs in Jambi, Indonesia*. International Conference on Entrepreneurship and Business Management (ICEBM 2020). <https://doi.org/10.2991/aebmr.k.210507.081>

United States Environmental Protection Agency. (2023, April 28). *Sources of greenhouse gas emissions | US EPA*. [Online] Available: <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

Vamvaka, V., Stoforos, C., Palaskas, T., & Botsaris, C. (2020). Attitude toward entrepreneurship, perceived behavioral control, and entrepreneurial intention: dimensionality, structural relationships, and gender differences. *Journal of Innovation and Entrepreneurship*, 9(1). <https://doi.org/10.1186/s13731-020-0112-0>

Vuorio, A., Puumalainen, K., & Fellnhofer, K. (2017). Drivers of entrepreneurial intentions in sustainable entrepreneurship. *International Journal of Entrepreneurial Behaviour & Research*, 24(2), 359-381. <https://doi.org/10.1108/ijeb-03-2016-0097>

Wang, J., & Dong, K. (2019). What drives environmental degradation? Evidence from 14 Sub-Saharan African countries. *Science of the Total Environment*, 656, 165-173. <https://doi.org/10.1016/j.scitotenv.2018.11.354>

Wannamakok, W. (2019, September 16). *Entrepreneurship Education and Entrepreneurial Intention: Perspectives on Institutional Theory*. [Online] Available: <http://scientifica.com/index.php/JEBE/article/view/115>

World Economic Forum. (2020). *Future readiness of SMES: Mobilizing the SME sector to drive widespread sustainability and prosperity*. [Online] Available: <https://www.weforum.org/whitepapers/future-readiness-of-smes-mobilizing-the-sme-sector-to-drive-widespread-sustainability-and-prosperity/>

Yasir, N., Mahmood, N., Mehmood, H. S., Rashid, O., & Li-Ren, A. (2021). The integrated role of personal values and theory of planned behavior to form a sustainable entrepreneurial intention. *Sustainability*, 13(16), 9249. <https://doi.org/10.3390/su13169249>

Yoon, E., & Tello, S. F. (2009). Drivers of sustainable Innovation: exploratory views and corporate strategies. *Seoul Journal of Business*, 15(2), 85-115. <https://doi.org/10.35152/snusb.2009.15.2.004>

Zaman, S., Arshad, M., Sultana, N., & Saleem, S. (2020). The effect of family business exposure on individuals' entrepreneurial intentions: an institutional theory perspective. *Journal of Family Business Management*, 11(4), 368-385. <https://doi.org/10.1108/jfbm-01-2020-0008>

Zebra, P. (2017, April 27). *Lack of environmental awareness is still a problem, but the bigger*

*issue is lack of action*. The Plaid Zebra. [Online] Available:

<https://theplaidzebra.com/lack-of-environmental-awareness-is-still-a-problem-but-a-bigger-issue-is-lack-of-action>

Zhang, K., Xu, D., & Li, S. (2019). The impact of environmental regulation on environmental pollution in China: an empirical study based on the synergistic effect of industrial agglomeration. *Environmental Science and Pollution Research*, 26(25), 25775-25788. <https://doi.org/10.1007/s11356-019-05854-z>

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