

Sustainable entrepreneurship in Malaysian companies



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ABSTRACT

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Sustainable entrepreneurship refers to the economic, social, and environmental value creation across enterprises in Malaysia. When examining sustainable entrepreneurship in Malaysian companies, small and medium-sized enterprises (SMEs), which serve as the backbone of the Malaysian economy and account for 97.2% of businesses and generate 38.2% of the gross domestic product, cannot be overlooked. The research is the first study in Malaysia, which extends the entrepreneurial event model to develop a comprehensive research framework to examine and propose suggestions to improve sustainable entrepreneurship in SMEs. A questionnaire was distributed to 400 entrepreneurs from SMEs in central regions in Malaysia, and 300 complete and valid questionnaires were used for the analysis. All constructs in the questionnaire were tested and confirmed to have high convergent validity and high composite reliability. The results show that perceived desirability, perceived feasibility and propensity to act have a positive effect on sustainable entrepreneurship in SMEs. Young entrepreneurs under 40 years old show greater propensity to act on sustainable entrepreneurship compared to older entrepreneurs aged over 40 years old. This research offers practical and theoretical new insights for SMEs, entrepreneurs, employees, and institutions toward improving sustainable entrepreneurship in a developing nation in Asia.

Contribution/Originality: This study examines the influence of new variables (environmental awareness, psychological capital, perceived behavioral control, and age) on sustainable entrepreneurship. It fills the gap left by previous studies where there is insufficient evidence and research on sustainable entrepreneurship in Malaysia and Asia. This study makes a significant contribution to the knowledge base by providing additional insights into the sustainable perspective of SMEs.

1. INTRODUCTION

Today, sustainable enterprise is viewed as a significant aspect of a nation's financial development, economic development and job creation (Majid, Kamaludin, MdSaad, & Aziz, 2012). With significant changes in the business and financial landscapes over recent decades, the traditional style of doing business, which focuses solely on profit, is no longer sustainable. Profit is not the only factor that contributes to a company's success in today's business environment (Azoulay, Jones, Kim, & Miranda, 2020). While profit-making is still one of the goals of sustainable entrepreneurship, other objectives, including adding value to the business, creating jobs and improving people's lives, are also important (Nordin & Hassan, 2019).

In Malaysia, the government knows that environmental corruption may bring cataclysmic results, and entrepreneurs are urged to play a role in transforming the current economy into a sustainable economy. Small and

medium-sized enterprises (SMEs) are important as they generate 38.2% of the gross domestic product and contribute significantly to the economic advancement of the nation. In the Asia-Pacific Economic Cooperation (APEC) area, SMEs represent 60% of the work power utilized and 90% of all enterprises (Koe & Majid, 2013). According to research by Rahman, Yaacob, & Radzi (2016), 190 countries worldwide, including Malaysia, committed to achieving 17 Sustainable Development Goals (SDGs) and 169 targets by 2015 to provide a better future for future generations. In Malaysia, SMEs play a crucial role in the nation's economy and drive Malaysia toward attaining the vision of a developed nation (Nordin & Hassan, 2019).

Although government assistance is provided for SMEs, the failure rate is increasing (Chong, 2012). Entrepreneurs are found to be incompetent in comprehending business challenges, particularly regarding money and management aptitudes. Assistance given by the government has not been appropriately utilized (Rahman, Yaacob, & Radzi, 2016).

SME proprietors do not have the perceived desirability and propensity to act for sustainable entrepreneurship (Chen et al., 2010). The principal challenge is maintaining the imperativeness of the business (Chen, Gompers, Kovner, & Lerner, 2010) to ensure survival with a view to expanding to a more significant level that can create prolonged positive benefits to society, the economy and the environment. In an emerging knowledge-based economy, psychological capital is one of the most significant and indispensable assets for associations to thrive in a competitive situation (Chen et al., 2010). SMEs in developing countries face challenges in creating environmental awareness and psychological capital among employees to attain sustainable entrepreneurship (Majid et al., 2017; Majid & Koe, 2012). Poor perceived feasibility is among the main reasons behind the failure of sustainable entrepreneurship as SMEs' proprietors failed to convince banks and investors of the viability of the business to acquire subsidies for sustainable entrepreneurship practices (Chen et al., 2010). The absence of perceived desirability and environmental awareness (Chen et al., 2010) means that organizations are unable to improve employee participation in sustainable entrepreneurship (Nordin & Hassan, 2019).

To overcome the abovementioned research problems, this study was conducted to provide insight into the challenges of sustainable entrepreneurship by being the pioneering research to examine the positive and negative factors from the internal and external environments.

The next section contains a comprehensive literature review of the key factors affecting sustainable entrepreneurship, and the research framework, methodology and hypotheses are explained, which were developed based on the literature reviews. This is followed by the results of the confirmatory data analysis and structural equation modelling. In the last section, the research is summarized and the findings and contributions of this research are discussed.

2. LITERATURE REVIEW AND METHODOLOGY

Sustainable entrepreneurship refers to specific business strategy which focuses on increasing value for society, the environment and the SMEs (Majid, Latif, & Koe, 2017; Majid & Koe, 2012). The idea of sustainable entrepreneurship has gained significance over the years (Majid et al., 2012). Sustainable entrepreneurship has brought societal and environmental considerations into the business world (Chen et al., 2010). Sustainable entrepreneurs implement practical business procedures that lead to better assessment, identification, and preservation of positive societal and environmental improvement (Azoulay, Jones, Kim, & Miranda, 2020). Sustainable entrepreneurship is concerned with bringing about new strategies for creation that benefit society and the environment (Azoulay et al., 2020). Sustainable entrepreneurship does not merely mean assessing the environmental impact of businesses on national or global levels (Majid et al., 2017; Majid & Koe, 2012). Rather, it creates a competitive advantage by making sales and marketing activities more environmentally friendly and can benefit more industry players and stakeholders over a longer period of time (Chen et al., 2010). Sustainable entrepreneurship refers to the recognizable proof and operationalization of capabilities that go past disciplinary

information and envelopes the abilities and capabilities of an entrepreneur to coordinate the mix of sustainability and entrepreneurship (Majid et al., 2017; Majid & Koe, 2012). In short, it refers to the competence of a businessperson who can successfully execute business tasks while taking care of real-world issues and difficulties at the society, economic and environmental levels (Majid et al., 2017; Majid & Koe, 2012). From a macro perspective, sustainable entrepreneurship brings substantial national development in terms of increases in national employment, sales, productivity, and income for organizations and industries (Nordin & Hassan, 2019). From a micro point of view, sustainable entrepreneurship creates a critical wellspring of social portability in a community of employees (Iakovleva & Kolvereid, 2009; Malebana, 2014). Previous research (Hockerts & Wüstenhagen, 2010; Nordin & Hassan, 2019) contemplated the effect of the business condition and national culture on an organization's entrepreneurial capacities. However, these studies only conducted descriptive analyses without providing sufficient theoretical contributions.

Sustainable entrepreneurship characterizes what an individual wants to accomplish or an inspirational vision that anticipates a person's behavior when running a business (Majid et al., 2012). It illustrates the effort required to run a business that benefits society, the economy and the environment (Hockerts & Wüstenhagen, 2010). The more grounded the sustainable entrepreneurship, the more the entrepreneur will dedicate efforts toward business activities to accomplish the desired sustainability goals (Islam, Rahim, Liang, & Momtaz, 2011). Additionally, sustainable entrepreneurship draws exceptionally positive business visionaries that help organizations to adequately assess, determine and address societal and environmental needs (Malebana, 2014). Sustainable entrepreneurship suggests productive business openings for society and the nation in the long run (Islam et al., 2011).

This research serves as the pioneering study in Malaysia, which extends the entrepreneurial event model to develop a comprehensive research framework to examine and propose suggestions to improve sustainable entrepreneurship in SMEs. The entrepreneurial event model is suitable to measure sustainable entrepreneurship as it proposes both perceptual facilitators and perceptual inhibitors that will lead to sustainable entrepreneurial action (Iakovleva & Kolvereid, 2009; Malebana, 2014).

The entrepreneurial event model reveals that sustainable entrepreneurship depends on factors such as the propensity to act, perceived desirability, and perceived feasibility. Nabi, Holden, and Walmsley (2010); Iakovleva and Kolvereid (2009) and Schlaegel and Koenig (2014) identified propensity to act, perceived desirability, and perceived feasibility as the key factors that measure sustainable entrepreneurship. Therefore, this study has added these three components as key factors.

Propensity to act is defined as an individual's willingness to follow up on one's choices, subsequently reflecting volitional parts of sustainable entrepreneurship ("I will do it"). Without the willingness to take action, it is difficult to shape sustainable entrepreneurship (Tukamushaba, Orobias, & George, 2011). The propensity to act alludes to the individual's eagerness to follow up on sustainable entrepreneurship choices when business activities are practically started up (Zain, Akram, & Ghani, 2010). Propensity to act positively impacts sustainable entrepreneurship as it shows an individual's eagerness to perform business activities according to perceived socioeconomic standards, which positively influence sustainable entrepreneurship (Rahman et al., 2016). Propensity to act portrays an individual's risk-taking inclination and tolerance of uncertainty, which shows the eagerness of business people or entrepreneurs to contribute to socioeconomic betterment (Enkel & Bader, 2016). Positive propensity to act bolsters sustainable entrepreneurship among university graduates (Rahman et al., 2016).

Perceived desirability is defined as the level of fascination that an individual has with setting up a business, which provides extra benefits for interpersonal relationships with peers, culture, family, tutors, and co-workers (Moghavvemi & Salleh, 2014). Perceived desirability was found to intervene in the connection between role models and sustainable entrepreneurship; the stronger the perceived desirability to imitate the behavior of the role model in social circles, the stronger the sustainable entrepreneurship (Moghavvemi & Salleh, 2014). Perceived desirability is perceived to have a positive influence on sustainable entrepreneurship to benefit society and the environment,

especially when starting and running a new enterprise (Ali, Lu, & Wang, 2012). Perceived desirability has an inspirational demeanor toward self-employment, since individuals who are certain about business are bound to become entrepreneurs who can contribute to society, the economy and the nation (Saeed, Muffatto, & Yousafzai, 2014). Therefore, propensity to act refers to the mindfulness of a business individual toward prompting entrepreneurial esteems and positive mentalities in accordance with the behaviors and expectations of his role models in social circles (Moghavvemi & Salleh, 2014). An entrepreneur's role model or guardian may impart knowledge and set a good example with their innovative mindset and how they develop leadership qualities for sustainable entrepreneurship (Saeed et al., 2014).

Perceived feasibility refers to the level to which an individual feels equipped for beginning a business that can contribute to sustainable entrepreneurship (Iakovleva & Kolvereid, 2009). In other words, perceived feasibility is the entrepreneur's confidence and self-esteem to perform sustainable entrepreneurial actions (Saeed et al., 2014). Perceived feasibility stems from entrepreneurial experience, where experience improves perceived feasibility toward new entrepreneurial pursuits that benefit society, the economy and the environment (Abbasiachavari & Moritz, 2021). Stronger perceived feasibility leads to stronger perceived desirability to contribute to the betterment of society, the environment and the economy, which directly leads to greater sustainable entrepreneurship (Abbasiachavari & Moritz, 2021). Thus, it appears that sustainable entrepreneurship is dependent on two important factors—perceived feasibility and perceived desirability (Abbasiachavari & Moritz, 2021).

Environmental awareness is an important factor that affects the success of sustainable entrepreneurship (Zapata & Peiró, 2018). Rosenbusch, Rauch, and Bausch (2013) found that companies appear to be highly environmentally aware. Thus, the research framework of this study is further expanded by adding environmental awareness as an independent variable. Environmental problems may have a huge impact on businesses and society. Several environmental factors, such as stakeholder conduct (non-legislative associations and buyer activity structures), competitive advantage (lessening costs or expanding income through ecological development), government guidelines and controls (unmistakable hand), and moral inspiration (corporate social duty), affect the success of sustainable entrepreneurship (Abbasiachavari & Moritz, 2021; York & Venkataraman, 2010).

In addition to the propensity to act, perceived desirability, perceived feasibility and environmental awareness, we propose that a new variable, psychological capital, is also tested. According to Kimjeon and Davidsson (2022), psychological capital refers to an entrepreneur's internal control and propensity to tolerate the uncertainty of sustainable entrepreneurship (Rivera-Kempis, Valera, & Sastre-Castillo, 2021). Since psychological capital can stimulate an individual's entrepreneurial spirit (Rivera-Kempis et al., 2021), this study therefore examines the effect of psychological capital on sustainable entrepreneurship.

The study also contributes to the literature on sustainable entrepreneurship by including perceived behavioral control and age as variables. Perceived behavioral control refers to the action of a business entrepreneur in performing sustainable entrepreneurship to creating unique strategic business opportunities (Rivera-Kempis et al., 2021). Criado-Gomis, Cervera-Taulet, and Iniesta-Bonillo (2017) emphasized the importance of perceived behavioral control for improving sustainable entrepreneurship behaviors. Perceived behavioral control refers to how the beliefs about the outcomes of the behavior, beliefs about the regularizing desires for others, and beliefs about the nearness of variables that may encourage or block execution of the behavior (Azoulay et al., 2020). Entrepreneurs intrigued by the idea of sustainable entrepreneurship will regulate their behavior to ensure that they only take rational action in running their business to better serve society, the economy and the environment. Perceived behavioral control implies that sustainable entrepreneurship conduct is dependent on the psychology of subjective endeavors (Fatoki, 2014). Perceived behavioral control is the readiness of an entrepreneur to regulate and plan their behavior for sustainable entrepreneurship, and it is the most significant aspect in deciding whether to display specific behavior (Al-Debei, Al-Lozi, & Papazafeiropoulou, 2013). Perceived behavioral control requires individuals to create mentalities from the beliefs that they hold regarding the outcomes of sustainable

entrepreneurship. Perceived behavioral control is affected by behavioral beliefs, anticipations or expenses and advantages (Malebana, 2014). The controlling behavior of entrepreneurs can foster behavioral changes toward sustainable development (Sardianou et al., 2016). Perceived behavioral control is particularly important for sustainable entrepreneurship, which is hard to manage in a short timeframe without monitoring and regulating behavior for the betterment of society, the economy and the environment (Vodă & Florea, 2019). Therefore, the research framework of this study (see Figure 1) was further extended by adding perceived behavioral control as a moderating variable in the study to test its effect.

The influence of age on sustainable entrepreneurship is also studied in this research. According to Yim (2013), the characteristics of sustainable entrepreneurship may change with age. The psychological and physiological changes that occur with growing age will directly influence the entrepreneur’s willingness to increase value for society, the environment and SMEs. Previous research treated age as an important factor for regular entrepreneurial activities (Marín, Nicolás, & Rubio, 2019). Moghavvemi and Salleh (2014) recommended that age can be used as a variable to determine sustainable entrepreneurship. Therefore, this study examines the influence of age on sustainable entrepreneurship among Malaysian SMEs. There is a significant relationship between age and sustainable entrepreneurship (Azoulay et al., 2020). The older the age, the greater the involvement in sustainable entrepreneurship because older entrepreneurs are more mature, more sensitive toward environmental changes and more willing to contribute for the betterment of society, the environment and the economy in the long run (Alfan & Andriansyah, 2022). Therefore, to have a comprehensive understanding of the sustainable entrepreneurship among entrepreneurs in Malaysian SMEs, it is important to investigate the effect of age on sustainable entrepreneurship.

The research framework below combines important information of the variables and hypotheses tested in this study. This framework has three categories—the independent variables, moderating variables, and the dependent variable. The framework in Figure 1 outlines the proposed connection between perceived desirability, perceived feasibility, propensity to act, environmental awareness, and psychological capital as independent variables along with perceived behavioral control and age as moderating variables toward sustainable entrepreneurship as the dependent variable.

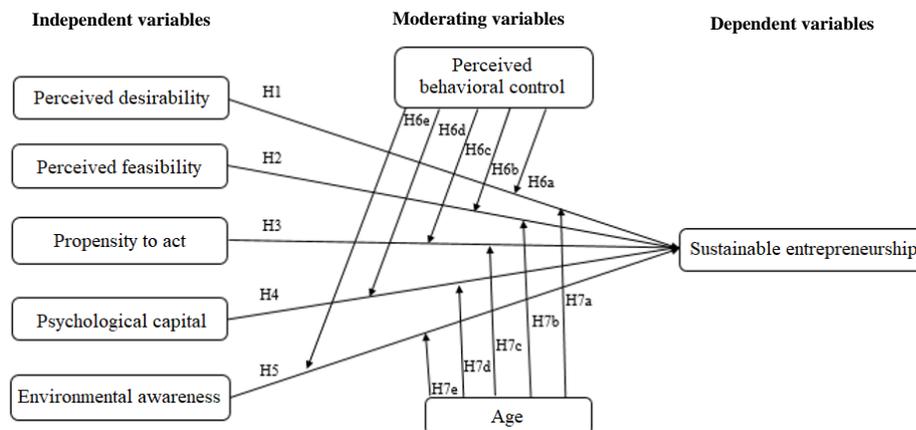


Figure 1. Research framework.

This study utilizes a closed-ended questionnaire as the fundamental source of data collection adjusted from existing research. This method was chosen because it is an efficient way to collect data from a large number of potential respondents (Islam et al., 2011). In Malaysia, most respondents are familiar with the questionnaire method because most of the past studies have used questionnaires in the data collection process (Islam et al., 2011; Yang, Sun, Zhang, Wang, & Cao, 2017).

The questionnaire comprised three sections. In Section I, the respondents were asked about their age, gender, race, highest education level, number of dependents, marital status, self-employed parents, work experience, age

when they started the business, how the business started, and perceived behavioral control. These questions are measured utilizing nominal and ordinal scales. In Sections II and III, there are five questions on perceived desirability, five questions on perceived feasibility, five questions on propensity to act, five questions on psychological capital, five questions on environmental awareness, and five questions on sustainable entrepreneurship.

A total of 400 self-administered questionnaires were distributed, and 134 of the respondents were from one of the three states with the highest proportion of SMEs in Malaysia. The questionnaire was distributed to entrepreneurs of SMEs in the large urban states in Malaysia, namely Selangor, Kuala Lumpur, and Johor.

3. RESULTS

All constructs in the questionnaire were tested and confirmed with high convergent validity (above threshold value of 0.60) and high composite reliability (above 0.70). The response rate was 75%, with 300 respondents out of 400 responding to all questions with complete answers. This study uses the Analysis of Moment Structure (AMOS) software to perform structural equation modeling to analyze the data collected. The demographic profile of 300 entrepreneurs in Malaysia is shown in Table 1.

Table 1. Profile of the respondents (N = 300).

Demographic variable	N	Percentage
Gender		
Male	202	67.3
Female	98	32.7
Age		
Under 40	173	57.65
Over 40	127	42.35
Race		
Malay	78	26
Chinese	139	46.3
Indian	83	27.7

The analysis results in Table 2 show that perceived desirability, perceived feasibility and propensity to act positively (β coefficients = 0.185, 0.183 and 0.224, respectively) affect sustainable entrepreneurship in SMEs. These results are consistent with previous studies (e.g., Majid et al., 2017), which indicate that when the three independent variables (perceived desirability, perceived feasibility, and propensity to act) increase, sustainable entrepreneurship will be stronger. The results also indicate that psychological capital and environmental awareness have no significant influence on sustainable entrepreneurship.

Table 2. Hypothesis results.

Hypothesis	Description	β	p	Result
H1	Perceived desirability significantly affects sustainable entrepreneurship	0.185	0.003	Supported
H2	Perceived feasibility significantly affects sustainable entrepreneurship	0.183	0.005	Supported
H3	Propensity to act significantly affects sustainable entrepreneurship	0.224	< 0.001	Supported
H4	Psychological capital significantly affects sustainable entrepreneurship	0.150	0.051	Not supported
H5	Environmental awareness significantly affects sustainable entrepreneurship	0.109	0.105	Not supported

Note: The hypothesis is supported when p is significant at the 0.05 level.

According to the results in Table 3, there is no significant influence between high and low perceived behavioral control on the relationship between perceived desirability, perceived feasibility, propensity to act, psychological capital, environmental awareness and sustainable entrepreneurship.

Table 3. The influence of perceived behavioral control on sustainable entrepreneurship.

Hypothesis	Description	β high behavioral control	β low behavioral control	p	Result
H6a	High behavioral control has a greater influence on the relationship between perceived desirability and sustainable entrepreneurship compared to low behavioral control	-0.550	6.230	0.526	Not supported
H6b	High behavioral control has a greater influence on the relationship between perceived feasibility and sustainable entrepreneurship compared to low behavioral control	-0.649	4.366	0.556	Supported
H6c	High behavioral control has a greater influence on the relationship between the propensity to act and sustainable entrepreneurship compared to low behavioral control	1.449	0.914	0.714	Not supported
H6d	High behavioral control has a greater influence on the relationship between psychological capital and sustainable entrepreneurship compared to low behavioral control	0.052	14.336	0.535	Not supported
H6e	High behavioral control has a greater influence on the relationship between environmental awareness and sustainable entrepreneurship compared to low behavioral control	-0.107	7.286	0.531	Not supported

According to previous research by Marín et al. (2019) and Moghavvemi and Salleh (2014), age groups have an influence on sustainable entrepreneurship. The results in Table 4 enrich the literature on sustainable entrepreneurship by showing that young entrepreneurs under 40 years old show a greater propensity to act regarding sustainable entrepreneurship compared to entrepreneurs aged over 40 years old. This finding indicates that young entrepreneurs are more willing to experience hard times and face adversity to promote sustainable entrepreneurship.

Table 4. The influence of age on sustainable entrepreneurship.

Hypothesis	Description	β below 40	β above 40	p	Result
H7a	Those under 40 show greater perceived desirability regarding sustainable entrepreneurship compared to those over 40	0.114	0.177	0.353	Not supported
H7b	Those under 40 show greater perceived feasibility regarding sustainable entrepreneurship compared to those over 40	0.023	0.023	0.652	Not supported
H7c	Those under 40 show a greater propensity to act on sustainable entrepreneurship compared to those over 40	0.163	0.163	0.007	Supported
H7d	Those under 40 show greater psychological capital regarding sustainable entrepreneurship compared to those over 40	-0.224	0.215	0.614	Not supported
H7e	Those under 40 show greater environmental awareness regarding sustainable entrepreneurship compared to those over 40	-0.033	0.335	0.522	Not supported

4. DISCUSSIONS AND CONCLUSIONS

The findings suggest that perceived desirability, perceived feasibility and propensity to act influence sustainable performance. When entrepreneurs focus on implementing these factors in SMEs, they will achieve a higher level of sustainable entrepreneurship.

The factors that influence sustainable performance in Malaysian SME were investigated in this study, and the implications are divided into two categories: practical implications and theoretical implications.

4.1. Practical Implications

On a practical level, the study makes some contributions to SMEs and industry players. The findings of the study show that perceived desirability is critical for achieving higher sustainability. Many SMEs in Malaysia may be willing to pursue entrepreneurship but do not practice sustainable entrepreneurship due to lack of self-confidence. Perceived desirability is a driver of sustainable entrepreneurship, so Malaysian SMEs should consider enhancing their perceived desirability to practice sustainable entrepreneurship in order to gain a better competitive advantage, which may improve sustainable entrepreneurship.

In addition, the findings also show that perceived feasibility positively affects sustainable entrepreneurship. This finding helps entrepreneurs in Malaysian SMEs to strengthen the perception of self-efficacy to increase the success of the implementation of sustainable entrepreneurship processes. This study suggests that entrepreneurs should be equipped with the necessary skills, capabilities and resources to maintain business sustainability.

This study also proves that the propensity to act positively affects sustainable entrepreneurship. This suggests that entrepreneurs in Malaysian SMEs need to develop more confidence in setting and achieving company goals to work toward sustainable development.

Perceived behavior control does not affect sustainable entrepreneurship. This finding serves as a warning to SMEs to improve knowledge and ability to ensure that entrepreneurs have adequate expertise and resources to overcome issues and manage sustainable entrepreneurship. SMEs should empower employees by involving them in decision making to solve complex problems quickly and easily.

Lastly, the study also proves that age is an important factor that influences sustainable entrepreneurship. Middle-aged entrepreneurs were found to be less willing to take risks in their businesses. In order to boost the risk-taking behaviors of middle-aged entrepreneurs, new management policies could be implemented in SMEs to enhance participation in innovation strategies and processes.

4.2. Theoretical Implications

This study examines the influence of new variables (environmental awareness, psychological capital, perceived behavioral control, and age) on sustainable entrepreneurship. It fills the gap left by previous studies (Abbasianchavari & Moritz, 2021; Alfian & Andriansyah, 2022; Azoulay et al., 2020) where there is insufficient evidence and study regarding sustainable entrepreneurship in Asia, and Malaysia in particular. This study makes a significant contribution to the knowledge base by providing additional insights into the sustainable aspect of SMEs.

Earlier study on sustainable entrepreneurship has primarily been conducted in other countries (Criado-Gomis et al., 2017; Kimjeon & Davidsson, 2022; Marín et al., 2019) but is limited in Malaysia. The findings of this study provide new insights regarding sustainable factors and performance in Malaysian SMEs. Lastly, many past studies do not provide a holistic research framework, so this study fills a gap in the literature by providing a holistic research framework to measure sustainable entrepreneurship in SMEs in Malaysia.

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REFERENCES

- Abbasianchavari, A., & Moritz, A. (2021). The impact of role models on entrepreneurial intentions and behavior: A review of the literature. *Management Review Quarterly*, 71(1), 1-40. <https://doi.org/10.1007/s11301-019-00179-0>
- Al-Debei, M. M., Al-Lozi, E., & Papazafeiropoulou, A. (2013). Why people keep coming back to Facebook: Explaining and predicting continuance participation from an extended theory of planned behavior perspective. *Decision Support Systems*, 55(1), 43-54. <https://doi.org/10.1016/j.dss.2012.12.032>
- Alfan, M., & Andriansyah, E. H. (2022). Impact of income expectations, family environment on entrepreneurial interests with self-efficacy as an intervening variable. *Prisma Sains: Journal of the Study of Science and Learning Mathematics and IPA IKIP Mataram*, 10(3), 598-608. <https://doi.org/10.33394/j-ps.v10i3.5218>
- Ali, S., Lu, W., & Wang, W. (2012). Determinants of entrepreneurial intentions among the college students in: China and Pakistan. *Journal of Education and Practice*, 3(11), 13-21.
- Azoulay, P., Jones, B. F., Kim, J. D., & Miranda, J. (2020). Age and high-growth entrepreneurship. *American Economic Review: Insights*, 2(1), 65-82.
- Chen, H., Gompers, P., Kovner, A., & Lerner, J. (2010). Buy local? The geography of venture capital. *Journal of Urban Economics*, 67(1), 90-102. <https://doi.org/10.1016/j.jue.2009.09.013>
- Chong, W. Y. (2012). Critical success factors for small and medium enterprises: Perceptions of entrepreneurs in urban Malaysia. *Journal of Business and Policy Research*, 7(4), 204-215.
- Criado-Gomis, A., Cervera-Taulet, A., & Iniesta-Bonillo, M.-A. (2017). Sustainable entrepreneurial orientation: A business strategic approach for sustainable development. *Sustainability*, 9(9), 1667. <https://doi.org/10.3390/su9091667>
- Enkel, E., & Bader, K. (2016). Why do experts contribute in cross-industry innovation? A structural model of motivational factors, intention and behavior. *R&D Management*, 46(S1), 207-226. <https://doi.org/10.1111/radm.12132>
- Fatoki, O. (2014). The causes of the failure of new small and medium enterprises in South Africa. *Mediterranean Journal of Social Sciences*, 5(20), 922-922.
- Hockerts, K., & Wüstenhagen, R. (2010). Greening Goliaths versus emerging Davids—theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, 25(5), 481-492. <https://doi.org/10.1016/j.jbusvent.2009.07.005>
- Iakovleva, T., & Kolvereid, L. (2009). An integrated model of entrepreneurial intentions. *International Journal of Business and Globalisation*, 3(1), 66-80. <https://doi.org/10.1504/ijbg.2009.021632>
- Islam, M., Rahim, N. A. A., Liang, T. C., & Momtaz, H. (2011). Effect of demographic factors on e-learning effectiveness in a higher learning institution in Malaysia. *International Education Studies*, 4(1), 112-121. <https://doi.org/10.5539/ies.v4n1p112>
- Kimjeon, J., & Davidsson, P. (2022). External enablers of entrepreneurship: A review and agenda for accumulation of strategically actionable knowledge. *Entrepreneurship Theory and Practice*, 46(3), 643-687. <https://doi.org/10.1177/10422587211010673>
- Koe, W.-L., & Majid, I. A. (2013). Sustainable entrepreneurship among small and medium enterprises (SMEs) in Malaysia. *International Journal*, 2(4), 286-290.
- Majid, I. A., Kamaludin, M. H., MdSaad, M., & Aziz, N. A. (2012). Sustainability – driven entrepreneurship: The mediating effect of opportunity-based management structure on the relationship between entrepreneurial orientation and environmental sustainability management of SMEs: A conceptual framework. *European Journal of Business and Management*, 4(13), 148- 156.
- Majid, I. A., Latif, A., & Koe, W. L. (2017). SMEs' intention towards sustainable entrepreneurship. *European Journal of Multidisciplinary Studies*, 4(3), 24. <https://doi.org/10.26417/ejms.v4i3.p24-32>
- Majid, I. A., & Koe, W.-L. (2012). Sustainable entrepreneurship (SE): A revised model based on triple bottom line (TBL). *International Journal of Academic Research in Business and Social Sciences*, 2(6), 293-310.

- Malebana, J. (2014). Entrepreneurial intentions of South African rural university students: A test of the theory of planned behavior. *Journal of Economics and Behavioral Studies*, 6(2), 130-143. <https://doi.org/10.22610/jebs.v6i2.476>
- Marín, L., Nicolás, C., & Rubio, A. (2019). How gender, age and education influence the entrepreneur's social orientation: The moderating effect of economic development. *Sustainability*, 11(17), 4514. <https://doi.org/10.3390/su11174514>
- Moghavvemi, S., & Salleh, N. A. M. (2014). Effect of precipitating events on information system adoption and use behavior. *Journal of Enterprise Information Management*, 27(5), 599-622. <https://doi.org/10.1108/jeim-11-2012-0079>
- Nabi, G., Holden, R., & Walmsley, A. (2010). From student to entrepreneur: Towards a model of graduate entrepreneurial career-making. *Journal of Education and Work*, 23(5), 389-415. <https://doi.org/10.1080/13639080.2010.515968>
- Nordin, R., & Hassan, R. A. (2019). The role of opportunities for green entrepreneurship towards investigating the practice of green entrepreneurship among SMEs in Malaysia. *Review of Integrative Business and Economics Research*, 8(1), 99-116.
- Rahman, N. A., Yaacob, Z., & Radzi, R. M. (2016). The challenges among Malaysian SME: A theoretical perspective. *World*, 6(3), 124-132.
- Rivera-Kempis, C., Valera, L., & Sastre-Castillo, M. A. (2021). Entrepreneurial competence: Using machine learning to classify entrepreneurs. *Sustainability*, 13(15), 8252. <https://doi.org/10.3390/su13158252>
- Rosenbusch, N., Rauch, A., & Bausch, A. (2013). The mediating role of entrepreneurial orientation in the task environment–performance relationship: A meta-analysis. *Journal of Management*, 39(3), 633-659. <https://doi.org/10.1177/0149206311425612>
- Saeed, S., Muffatto, M., & Yousafzai, S. (2014). A multi-level study of entrepreneurship education among Pakistani university students. *Entrepreneurship Research Journal*, 4(3), 297-321. <https://doi.org/10.1515/erj-2013-0041>
- Sardianou, E., Kostakis, I., Mitoula, R., Gkaragkani, V., Lalioti, E., & Theodoropoulou, E. (2016). Understanding the entrepreneurs' behavioral intentions towards sustainable tourism: A case study from Greece. *Environment, development and sustainability*, 18(3), 857-879. <https://doi.org/10.1007/s10668-015-9681-7>
- Schlaegel, C., & Koenig, M. (2014). Determinants of entrepreneurial intent: A meta-analytic test and integration of competing models. *Entrepreneurship Theory and Practice*, 38(2), 291-332. <https://doi.org/10.1111/etap.12087>
- Tukamushaba, E. K., Orobia, L., & George, B. P. (2011). Development of a conceptual model to understand international social entrepreneurship and its application in the Ugandan context. *Journal of International Entrepreneurship*, 9(4), 282-298. <https://doi.org/10.1007/s10843-011-0079-9>
- Vodă, A. I., & Florea, N. (2019). Impact of personality traits and entrepreneurship education on entrepreneurial intentions of business and engineering students. *Sustainability*, 11(4), 1192. <https://doi.org/10.3390/su11041192>
- Yang, Z., Sun, J., Zhang, Y., Wang, Y., & Cao, L. (2017). Employees' collaborative use of green information systems for corporate sustainability: Motivation, effort and performance. *Information Technology for Development*, 23(3), 486-506. <https://doi.org/10.1080/02681102.2017.1335281>
- Yim, S. (2013). The acquisitiveness of youth: CEO age and acquisition behavior. *Journal of Financial Economics*, 108(1), 250-273. <https://doi.org/10.1016/j.jfineco.2012.11.003>
- 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>
- Zain, Z. M., Akram, A. M., & Ghani, E. K. (2010). Entrepreneurship intention among Malaysian business students. *Canadian Social Science*, 6(3), 34-44.
- Zapata, D., & Peiró, J. M. (2018). The importance of empowerment in entrepreneurship. In *Inside the Mind of the Entrepreneur* (pp. 185-206). Cham: Springer.

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