

Exploring Entrepreneur Intention in the Mushroom Industry with Government Support in Malaysia

Zulkefli Muhamad Hanapiyah¹, *Ahmad Syahmi Ahmad Fadzil², Nur Fatihah Shaari², Hamdan Sulaiman³,
Salwa Adam³, Aida Nur Mohd Khodri¹

¹Faculty of Business and Management, Universiti Teknologi MARA, Alor Gajah Campus, Melaka, Malaysia

²Faculty of Business and Management, Universiti Teknologi MARA, Segamat Campus, Johor, Malaysia

³Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA, Campus Jasin Melaka, Malaysia

zulkefli@uitm.edu.my, *syahmifadzil@uitm.edu.my, fatihahshaari@uitm.edu.my,

hamdan91821@uitm.edu.my, salwa@uitm.edu.my, aidanur@uitm.edu.my

Corresponding Author: Ahmad Syahmi Ahmad Fadzil

Abstract: The mushroom industry in Malaysia is experiencing significant growth due to its high return value and low production costs. The Malaysian government has implemented initiatives to encourage entrepreneurial activities. However, the effectiveness of these initiatives in influencing entrepreneurial intention remains to be determined. This study investigates the relationship between entrepreneurial intention in the Malaysian mushroom industry and the moderating effect of government support, drawing insights from the interplay between entrepreneurial self-efficacy, intention, and external support mechanisms. Numerous factors influence entrepreneurship intentions in the mushroom industry. Entrepreneurial self-efficacy plays a crucial role in shaping entrepreneurial intentions and behaviors, and individuals with high self-efficacy are more likely to perceive themselves as capable of successfully starting and running a new business. Government support can provide funding, tax advantages, subsidies, skills development, and advice services and create enabling environments for entrepreneurial efforts. The literature on government support and its impact on entrepreneurship intention reveals gaps that need further exploration. The theory of Planned Behavior (TPB) offers a comprehensive framework for understanding how entrepreneurship education influences self-efficacy, attitudes, and intentions. This study examines the capacity of government assistance to impact entrepreneurial intention in the Malaysian mushroom business, providing vital knowledge on how to promote a more robust environment for sustainable mushroom production. Additionally, this research aims to bridge the gap by investigating how government support moderates the relationship between entrepreneurial self-efficacy and intention in the Malaysian mushroom industry, offering valuable conceptual insights to policymakers for fostering a sustainable mushroom production sector.

Keywords: *Entrepreneur Education, Entrepreneur Attitude, Entrepreneur Self-Efficacy, Government Support, Entrepreneur Intention, Mushroom Industry.*

1. Introduction

Mushrooms have been classified as a high-value commodity under Malaysia's National Argo-Food Policy (2011-2020). The mushroom industry development focuses on expanding the cultivation area, increasing productivity, developing new kinds, and improving product quality. In the current setting, the mushroom industry in Malaysia has been experiencing significant growth, becoming one of the fastest-growing agricultural sectors in the country. This growth is attributed to high return value and low production costs (Munir et al., 2021). The demand for mushrooms in Malaysia has been steadily increasing, with projections indicating a rise from 23,000 tons per year in 2008 to 72,000 tons per year by 2020 Rashidi & Yang (2016). This growth is further supported by mushroom cultivation, which does not require extensive land and can be established with modest to low capital investment, making it an attractive option for rural farmers and peri-urban dwellers (Rosmiza et al., 2016). Grey oyster mushrooms are a focal point in commercial mushroom farming in Malaysia, with white oyster mushrooms being less popular due to their slower growth rate (Abdullah et al., 2023). Additionally, various mushroom species, such as *Agaricus*, *Auricularia*, and *Pleurotus*, are widely cultivated in the country (Majib et al., 2023).

Mushroom cultivation, particularly oyster mushrooms, is seen as a lucrative agricultural activity in Malaysia due to its high value and low-cost technology that can yield substantial returns within a short period (Latif et al., 2023). Additionally, cultivating rare polypore mushrooms like *Ganoderma neo-japonica* in Malaysia presents opportunities for commercialization and utilization in various products due to their unique properties (Tan et al., 2015). Small and medium-sized enterprises (SMEs) play a vital role in the Malaysian economy, with

manufacturing SMEs contributing significantly to the country's industrial development (Khan & Khalique, 2014). Developing SMEs, including those in the mushroom industry, is crucial for achieving high-income nation status by leveraging their economic contributions (Wahab et al., 2019). Furthermore, SMEs in Malaysia are expected to increase their production output, with manufacturing SMEs projected to contribute up to 50% of the total production output in the sector by 2020 (Mamun et al., 2018).

The mushroom industry's potential in Malaysia is further underscored by the increasing demand for mushrooms, with the total market expected to rise significantly in the coming years (Rashidi & Yang, 2016). To enhance production efficiency and quality, innovations such as automated controlled environment mushroom houses have been developed to optimize growing conditions and increase yields (Ten et al., 2021). Moreover, the industry's focus on expanding areas, increasing productivity, creating new varieties, and improving product quality highlights a commitment to growth and innovation (Wong & Cheng, 2018). The landscape of the mushroom industry SMEs in Malaysia is characterized by rapid growth, technological advancements, and a significant contribution to the country's economy. With favorable conditions for cultivation, increasing demand, and ongoing research and development efforts, the mushroom industry in Malaysia presents promising opportunities for SMEs to thrive and contribute further to the nation's economic development.

Entrepreneurial intention in the mushroom industry is critical to innovation and economic growth. However, the factors influencing entrepreneurial intention within this sector, particularly in the context of government support, still need to be explored. The Malaysian government recognizes the mushroom industry's potential and has implemented initiatives to encourage entrepreneurial activity. However, the effectiveness of these initiatives in influencing entrepreneurial intention remains unclear. Examples of government support programs include subsidies and grants and training and skills development. Understanding how government initiatives impact entrepreneurial aspirations in the mushroom industry is essential for fostering a conducive entrepreneurial ecosystem. Therefore, this study aims to investigate the relationship between entrepreneurial intention in the Malaysian mushroom industry and the moderating effect of government support, drawing insights from the interplay between entrepreneurial self-efficacy, intention, and external support mechanisms.

2. Research Methodology

This study involves a literature review investigating the relationship between entrepreneurship education, entrepreneurship self-efficacy, entrepreneurship attitudes, government support, and entrepreneurship intention. A thorough review of secondary data sources on relevant literature and past research is carried out to achieve this purpose, gathering information from scholarly journals, books, conference proceedings, reports, websites, government reports, etc. The relevancy of previous studies and the authors' credentials have become this study's selection criteria. As such, all the journals were taken from ProQuest, Scopus, Emerald Insight, and Science Direct. Criteria for concept paper were emphasized based on recommendations from Gilson and Goldberg (2005) such as providing an integrated framework, proposing new relationships among constructs, developing arguments for associations, and broadening the scope of thinking. The following sections offer an overview of relevant studies organized by individual perspectives and the correlation between the components. The research findings are summarized and discussed in the final remarks.

3. Literature Review and Hypothesis Development

Entrepreneurship education and entrepreneurial intention: The relationship between entrepreneurship education and entrepreneurial intention has been extensively studied, with various research findings highlighting the significance of this connection. Entrepreneurship education plays a crucial role in shaping individuals' attitudes, skills, and motivations toward entrepreneurship, ultimately influencing their intention to engage in entrepreneurial activities. Numerous studies have demonstrated the positive impact of entrepreneurship education on fostering an entrepreneurial mindset, which subsequently affects students' intention to engage in entrepreneurial activities (Rodriguez & Lieber, 2020; Sun et al., 2023; Handiman et al., 2022; Zhang et al., 2022; Supriyanto et al., 2020; Wardana et al., 2020; Li et al., 2021; Hidayatulloh & Ashoumi, 2022; Aga, 2023). These programs commonly employ project-based learning and experiential learning methods to develop a comprehensive skill set associated with an entrepreneurial mindset. Entrepreneurship education has been consistently linked to fostering entrepreneurial intentions among students. Various studies

have highlighted the positive impact of entrepreneurship education on entrepreneurial intentions through different mechanisms. For instance, research by Bae et al. (2014) emphasizes that entrepreneurship education enhances awareness of entrepreneurship as a viable career path, distinct from traditional employment. This sentiment is echoed by (Duong, 2021), who suggests that factors like attitude toward entrepreneurship and perceived behavioral control can mediate the influence of entrepreneurship education on entrepreneurial intentions. Moreover, studies such as those by Hoang et al. (2020) and Lv et al. (2021) delve into the mediating roles of self-efficacy, learning orientation, and entrepreneurial competence in the relationship between entrepreneurship education and entrepreneurial intentions. These findings underscore the importance of providing entrepreneurship education and nurturing students' confidence, skills, and competencies to effectively translate education into entrepreneurial intentions.

Entrepreneurship attitudes and entrepreneurship intention: Entrepreneurship attitudes and intentions within the mushroom industry can be influenced by various factors. Agung & Mashuri (2022) found that attitudes toward entrepreneurship positively affect entrepreneurial intentions, which can be crucial in shaping individuals' mindset towards starting a business in the mushroom industry. Additionally, Shirur et al. (2019) highlighted the importance of entrepreneurial behavior among mushroom growers, indicating that how individuals conduct their entrepreneurial activities can impact their success in the mushroom industry. Moreover, Salam & Siswanto (2021) emphasized the significance of entrepreneurship education in stimulating entrepreneurial intentions among students. This is particularly relevant for individuals aspiring to venture into the mushroom industry, as education can equip them with the necessary knowledge and skills to succeed in this sector. Furthermore, Adeyemo et al. (2021) demonstrated that entrepreneurship education influences entrepreneurial intentions and enhances entrepreneurial competence, essential for individuals looking to thrive in the competitive mushroom industry.

Entrepreneurship self-efficacy and entrepreneurship intention: Entrepreneurial self-efficacy is a crucial concept in entrepreneurship, defined as an individual's belief in their ability to successfully undertake the tasks and responsibilities associated with being an entrepreneur (Wardana et al., 2020; Wijangga & Sanjaya, 2019; Porfírio et al., 2018). This belief in oneself plays a significant role in shaping entrepreneurial intentions and behaviors (Nursyirwan et al., 2022; Wilson et al., 2007). Research has shown that individuals with high entrepreneurial self-efficacy are more likely to perceive themselves as capable of successfully starting and running a new business (Wijangga & Sanjaya, 2019; Porfírio et al., 2018). Moreover, entrepreneurial self-efficacy has been linked to positive attitudes toward entrepreneurship and a greater inclination toward engaging in entrepreneurial activities (Nursyirwan et al., 2022; Wilson et al., 2007). Research has also highlighted the mediating role of entrepreneurial self-efficacy in the relationship between entrepreneurship education and entrepreneurial intentions (Rizqi et al., 2022). Entrepreneurial self-efficacy acts as a mediator that enhances the effect of entrepreneurship education on students' intentions to engage in entrepreneurial endeavors by boosting their confidence and belief in their entrepreneurial capabilities. Furthermore, entrepreneurial self-efficacy has been found to moderate the relationships between attitudes toward entrepreneurship, subjective norms, and perceived behavioral control, influencing entrepreneurial intentions (Duong, 2021). This suggests that individuals with higher levels of self-efficacy are more likely to translate positive attitudes and beliefs into concrete intentions to pursue entrepreneurial activities.

The moderating role of government support: Government support in entrepreneurship encompasses a range of initiatives to foster and sustain entrepreneurial activities. This support can be direct or indirect, involving funding major investments, providing tax advantages, offering subsidies, skills development, advice services, and creating enabling environments for entrepreneurial efforts (Martin et al., 2013; Moro et al., 2020; Saberi & Hamdan, 2019; Gigauri & Damenia, 2020). Such support can also come from policies that eliminate barriers, provide preferential loans, and facilitate partnerships between government organizations, businesses, and the non-profit sector (Akbulaev et al., 2019). Moreover, research emphasizes the importance of government policies in enhancing the sustainability and viability of mushroom cultivation. Studies suggest that funding and support from local governments and NGOs are essential for developing mushroom agriculture to create employment opportunities and alleviate poverty (Ahmed & Rahman, 2008).

Additionally, government initiatives focusing on developing the mushroom industry in regions like Russia have led to dynamic growth supported by high consumer demand and year-round production possibilities

(Alexandrova & Lazareva, 2021). Furthermore, the role of government support extends to areas such as research, education, and policy formulation. Governments can facilitate the dissemination of knowledge and best practices in mushroom cultivation through international cooperation and educational programs (Okuda, 2022). By investing in research and education, governments can ensure the sustainable development of the mushroom industry and address challenges related to production, marketing, and technological advancements (Anggrawan et al, 2023).

Entrepreneurship intention: Entrepreneurial intention in the mushroom industry is influenced by various factors such as entrepreneurial self-efficacy, business competitiveness strategies, utilization of technology for waste management, and the impact of entrepreneurial education. Studies have shown that entrepreneurial self-efficacy is crucial to the entrepreneurial process (McGee et al., 2009). Additionally, mushroom small-medium enterprises' strategic resources and environmental uncertainty directly affect their competitiveness (Haryati et al., 2020). Utilizing technologies like aerobic compression composting for managing raw mushroom waste addresses ecological concerns and impacts the profitability of mushroom industries (Chia et al., 2022). Furthermore, entrepreneurial education and self-efficacy significantly influence college students' intentions (Liu et al., 2019). Access to resources and learning opportunities through entrepreneurship education programs can positively affect individuals' intentions for new venture creation (Ahmed et al., 2020). Moreover, in the mushroom industry, the cultivation of mushrooms on different substrates can impact fruiting body production and aroma profiles, affecting the products' overall quality and market competitiveness (Kleofas et al., 2014).

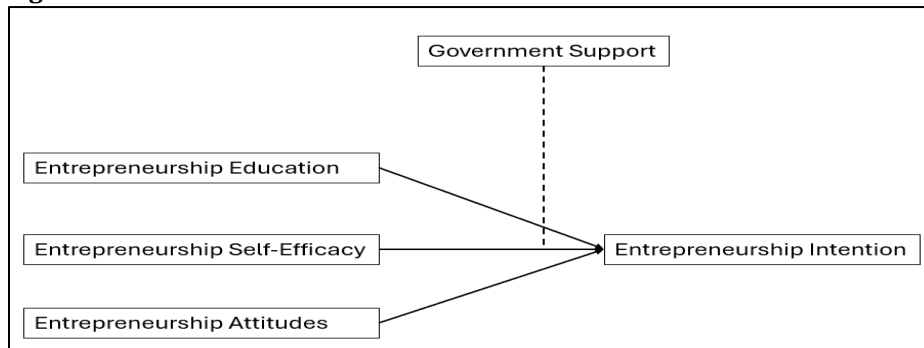
The literature gap and underpinning theory: The existing literature on government support and its impact on entrepreneurship intention reveals several gaps that need further exploration. While some studies have highlighted the positive relationship between government support policies and entrepreneurship skills development (Sule et al., 2022), others have pointed out the need for more empirical evidence on the indirect effects of entrepreneurial training effectiveness and perceived government entrepreneurial support on students' venturing intention into entrepreneurship (Salisu, 2020). Additionally, the influence of government subsidies on innovation and entrepreneurial intention has been noted, indicating a regulating effect on entrepreneurial activities (Li et al., 2021). Furthermore, the role of government interventions and policies in encouraging entrepreneurship, particularly in terms of how entrepreneurial support influences entrepreneurial intention, has been emphasized (Meyer & Synodinos, 2019).

It has been suggested that government and educational institutions should provide support such as venture funds and resources to facilitate entrepreneurial activities among students (Lv et al., 2021). Moreover, the positive impact of university entrepreneurship support on entrepreneurial attitude, self-efficacy, and intention has been highlighted (Lu et al., 2021). In addressing the gaps in the literature, policymakers need to understand that government initiatives can significantly influence entrepreneurial intentions by affecting attitudes, abilities, and subjective norms (Ebewo et al., 2017). Additionally, the importance of proper funding for entrepreneurship education and the establishment of financial institutions to support graduates in establishing entrepreneurial ventures have been underscored (Daniel & Olusola, 2023). The literature suggests that government support is crucial in shaping entrepreneurial intentions and fostering an entrepreneurial ecosystem conducive to developing new ventures.

The theory of Planned Behavior (TPB) offers a comprehensive framework for understanding how entrepreneurship education influences self-efficacy, attitudes, and, ultimately, entrepreneurial intentions. By considering the interplay of attitudes, subjective norms, and perceived behavioral control, this theory demonstrates how entrepreneurship education cultivates an entrepreneurial mindset and fosters intentions to engage in entrepreneurial activities. To illustrate, The TPB posits that attitudes, subjective norms, and perceived behavioral control influence one's intentions and subsequent behaviors (Souitaris et al., 2007). Entrepreneurship education has been demonstrated to positively impact entrepreneurial attitudes and intentions by influencing students' perceptions of entrepreneurship through theories of social learning and self-efficacy (Peterman & Kennedy, 2003). Moreover, entrepreneurship education plays a crucial role in shaping entrepreneurial self-efficacy and attitudes toward entrepreneurship, subsequently influencing entrepreneurial intentions (Kusumojanto et al., 2020). Meanwhile, research has shown that entrepreneurial

self-efficacy positively impacts attitudes toward entrepreneurship, subsequently affecting entrepreneurial intentions (Nursyirwan et al., 2022).

Figure 1: Research framework



This study establishes a research framework as a foundation for the study's objectives. The study's conceptual framework encompasses three independent variables: entrepreneurship education (EE), entrepreneurship self-efficacy (ES), and entrepreneurship attitudes (EA), with government support as the moderating variable for EE and ES. Entrepreneurship intention (EI) is the dependent variable. The arrows in Figure 1 exhibit the direct correlations within the model. Additionally, the arrows signify that the present study seeks to evaluate the degree to which the preceding elements impact entrepreneurship intention. The study adopts the Theory of Planned Behaviour as its conceptual framework.

4. Discussion

The findings of this study, derived from a comprehensive evaluation of the relevant literature, indicate that numerous elements have the potential to influence the entrepreneurship elements on entrepreneurship intention, either directly or indirectly. By investigating the influence of entrepreneurial ecosystems in the context of entrepreneurship education, entrepreneurship self-efficacy, and entrepreneurship attitude on entrepreneurial intention, we can bridge the existing knowledge gap. Additionally, government support is supposed to strengthen the association between entrepreneurship well-being and entrepreneurship intention. This research direction can contribute to developing more effective strategies for promoting sustainable business ventures that contribute to sustainable entrepreneurship.

The mushroom industry has the potential to significantly contribute to integrated rural development programs (Girmay et al., 2016). Governments can play a crucial role in supporting this industry through subsidies and policies. While there are concerns about government subsidies potentially distorting competition, targeted subsidies can effectively promote the growth of sectors like mushroom cultivation (Aghion et al., 2015). For instance, the Malaysian government has forecasted a substantial increase in mushroom exports, indicating the importance of government support in meeting the rising demand for high-quality mushrooms (Munir et al., 2021). In countries like China, government subsidies have been instrumental in driving innovation and development in industries such as renewable energy, showcasing the positive impact of strategic government intervention (Yu et al., 2016). Similarly, in Bangladesh, where funding for mushroom agriculture is limited, local governments and NGOs can collaborate to promote mushroom cultivation as an industrial endeavor, creating employment opportunities in rural and semi-urban areas (Ahmed & Rahman, 2008).

Efforts to scale up mushroom cultivation from small household businesses to large commercial operations are essential for the industry's growth (Gamage & Ohga, 2018). Educational initiatives are also crucial for sustainable development in mushroom production, emphasizing the need for knowledge dissemination and skills training (Anggrawan, Satria, & Zulfikri 2023; Mavi & Thakur, 2021). Moreover, exploring innovative cultivation practices, such as mixed cultivation to reduce CO2 emissions, demonstrates the potential for environmentally sustainable approaches in mushroom farming (Jung & Son, 2021). In conclusion, government support through subsidies, policies, and educational programs is vital for the growth and sustainability of the mushroom industry. By strategically investing in this sector, governments can foster economic development

and promote employment, innovation, and environmental sustainability within the mushroom cultivation domain.

By examining the connection between entrepreneurial ecosystems, education, self-efficacy, and government support, this research could develop more targeted and effective strategies for promoting sustainable business ventures in the mushroom industry. Success in this area could translate to significant contributions to integrated rural development programs. For example, targeted government subsidies instead of broad-based ones could foster the mushroom industry growth without distorting competition. Educational initiatives focused on knowledge dissemination and skills training could further empower entrepreneurs and contribute to the industry's transition from small-scale to large-scale operations. Additionally, exploring environmentally sustainable practices like mixed cultivation could promote ecologically responsible growth. Ultimately, by strategically investing in these areas, governments could leverage the mushroom industry to drive economic development, job creation, innovation, and environmental sustainability.

5. Conclusion

This conceptual study has examined the capacity of government assistance to impact entrepreneurial intention in the Malaysian mushroom business. By examining the interaction of entrepreneurial ecosystems, education, self-efficacy, and government programs, we may acquire vital knowledge on promoting a more robust environment for sustainable mushroom production. The potential advantages of a flourishing Malaysian mushroom business go beyond just economic expansion. Implementing sustainable agriculture practices can effectively help to achieve environmental objectives while also meeting the growing need for nutritious food sources through more excellent production. This conceptual research, however, emphasizes the necessity for more research to fill the information gap concerning the precise methods by which government support programs might effectively foster entrepreneurial intention in the Malaysian mushroom business. Arguably, further research is needed to pinpoint the most effective methods for government support programs to cultivate entrepreneurial intention. Policymakers can design more targeted and efficient strategies by understanding how these programs interact with other influencing factors. Therefore, policymakers can build more focused and efficient strategies by comprehending how these programs interact with different elements influencing intention. For instance, understanding how subsidies can interact with educational initiatives focused on mushroom cultivation can inform the creation of grant programs specifically for aspiring mushroom entrepreneurs who complete relevant training.

Similarly, studying the connection between self-efficacy and government loan programs can guide the development of mentorship programs alongside loan options, bolstering the confidence of new entrepreneurs. Through this deeper understanding, policymakers can design government support beyond simple financial incentives. By strategically combining targeted subsidies, educational programs, and mentorship initiatives, they can create a more holistic environment that fosters entrepreneurial intention and empowers individuals to succeed in the mushroom industry. In conclusion, this can result in a thriving local mushroom industry that enhances Malaysia's economic, social, and environmental welfare.

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