

JOURNAL OF TECHNOLOGY MANAGEMENT AND TECHNOPRENEURSHIP

Bridging Education And Enterprise: Business Startup Readiness Of Malaysian Youth In Mara Colleges

Nur Qairina Wannye Dunsim^a, Juhaini Jabar^{a,*} Murzidah Ahmad Murad^a

^aFaculty of Technology Management and Technopreneurship, Universiti Teknikal Malaysia Melaka (UTeM), Malaysia

Abstract

This study introduces a novel conceptual framework to address persistent gap between entrepreneurial intention and successful startup creation among Malaysian youth in MARA Profesional Colleges. By integrating the Theory of Planned Behavior, Event Based Entrepreneurship Model, and Effectuation Theory the framework identifies entrepreneurial intention, self-efficacy, and action-taking behavior as key mediators, while highlighting funding access, mentorship quality, and industry type as crucial moderators of startup outcomes. This integrated model offers a significant conceptual contribution by providing a comprehensive, multi-theoretical lens to understand the complex interplay of education, individual attributes, and environmental factors in entrepreneurship. Hence, this study examines the conceptual and theoretical frameworks that support entrepreneurial schooling, as well as behavioral qualities and contextual enhancers, including mentorship, access to capital and industry relevance.

Keywords: entrepreneurial intention; successful startup; entrepreneurial education; self-efficacy; action taking; MARA Profesional Colleges

1.0 INTRODUCTION

Entrepreneurship has emerged as a strategic pillar in Malaysia's national development agenda, particularly in addressing youth unemployment, economic resilience, and inclusive growth. Entrepreneurial education (EE), once confined to business schools, has evolved into a multidisciplinary tool for cultivating creativity, adaptability, and opportunity recognition across sectors. Within this landscape, MARA Professional Colleges (KPM) play an important role in delivering EE to Bumiputera students, equipping them with the mindset and competencies required to initiate and sustain business ventures. However, despite the extensive implementation, the conversion of entrepreneurial intention into viable and enduring startups remains inconsistent.

*Corresponding author.

E-mail address: juhaini@utem.edu.my

Globally, EE has gained traction as a transformative educational approach. Countries such as Finland, Singapore, and South Korea have embedded EE across their curricular, emphasizing experiential learning, mentorship, and ecosystem integration. While, the European Commission's Entrepreneurship 2020 Action Plan promotes EE as a lifelong learning strategy, while initiatives like Campus CEO in South Korea and ACE in Singapore connect students directly with venture capitalists, incubators, and startup founders. These models demonstrate that EE must extend beyond classroom instruction to include real-world exposure, sectoral relevance, and behavioral development.

Malaysia's policy frameworks including the National Entrepreneurship Policy 2030 (NEP 2030), Shared Prosperity Vision 2030, and the Eleventh Malaysia Plan reflect similar objectives. These policies advocate for EE as a national priority, promoting inclusive innovation and economic empowerment. MARA, as a key implementing agency, has responded by integrating EE into its diploma programs and launching sector-specific initiatives such as MERCU, HIT Barber, and MARA in Fashion. The MARA Strategic Plan 2021–2025 sets ambitious goals, including the creation of 50,000 new businesses by 2025, emphasizing the importance of EE in achieving national development targets.

Despite these efforts, empirical evidence reveals persistent challenges. According to Hassan et al. (2021) and Azlan et al. (2022) indicate that while MARA's programs enhance entrepreneurial awareness and skills, they often fall short in supporting post-graduation business sustainability. Youth-led startups face high failure rates, with only 5–8% surviving beyond three years (GEM, 2022). This gap between intention and execution is exacerbated by several factors: an overemphasis on theoretical instruction, limited experiential learning, inconsistent mentorship quality, restricted access to funding, and the absence of validated tools to assess entrepreneurial readiness.

Moreover, EE programs within MARA institutions are frequently delivered in a uniform format, overlooking the sector-specific needs of students in fields such as agriculture, digital services, and creative industries. The lack of tailored content and contextual support limits the applicability of EE and reduces its impact on real-world venture creation. Additionally, mentorship practices vary widely across campuses, and post-graduation support mechanisms remain fragmented or absent. These structural and pedagogical inconsistencies hinder the development of entrepreneurial competencies and reduce the likelihood of startup success.

The Global Entrepreneurship Monitor (GEM, 2022) reports that while Malaysia has a high rate of early-stage entrepreneurial activity, the survival rate of youth-led startups remains low. This suggests that EE may successfully cultivate entrepreneurial intention but fails to translate it into sustained entrepreneurial performance. The World Bank's review of 230 EE programs across 115 countries highlights that successful EE initiatives share common features: wraparound services, experiential learning, clear outcome metrics, and alignment with local economic contexts. MARA's current EE delivery lacks several of these components, particularly in terms of post-program support and sectoral integration.

One of the most pressing gaps is the absence of standardized tools to assess entrepreneurial readiness. While some campuses offer robust EE programs with mentoring and incubation, others rely solely on theoretical instruction. This inconsistency makes it difficult to evaluate program effectiveness and identify students with high entrepreneurial potential. Furthermore, existing assessment methods often rely on academic performance or competition participation, which do not adequately capture behavioral traits such as self-efficacy, risk tolerance, and action-taking behavior.

To address these challenges, this study proposes a conceptual and theoretical framework that integrates behavioral traits entrepreneurial intention, self-efficacy, and action-taking behavior as mediators, and contextual factors funding access, mentorship quality, and industry type as moderators. Grounded in the Theory of Planned Behavior (Kraeger et al., 2000), Event-Based Entrepreneurship (Fisher, Josefy & Neubert, 2024), and Effectuation Theory (Sarasvathy, 2019), the framework aims to enhance the efficacy of EE within MARA institutions.

While entrepreneurial education is widely recognized as a catalyst for economic development, its implementation within MARA Professional Colleges requires a more details and integrated approach. Hence, this study examines the conceptual and theoretical frameworks that support entrepreneurial schooling, as well as behavioral qualities and contextual enhancers, including mentorship, access to capital and industry relevance.

2.0 CONCEPTUAL FRAMEWORK

Entrepreneurial education (EE) has gained global recognition as a transformative tool for cultivating entrepreneurial mindsets, enhancing employability, and driving inclusive economic growth. Within the Malaysian context, EE is embedded in national policy frameworks such as NEP 2030 and the Shared Prosperity Vision 2030, with MARA Professional Colleges (KPM) serving as key institutional actors in delivering EE to Bumiputera students. However, the translation of EE into sustainable startup success remains inconsistent. For that reason, this study proposes a conceptual framework that integrates behavioral traits as mediators and contextual factors as moderators in the relationship between EE and startup success.

2.1. Entrepreneurial Education and Behavioral Traits

Entrepreneurial education is defined as the structured learning process that equips students with entrepreneurial knowledge, skills, and attitudes through formal modules, experiential activities, and institutional programs. In this study, EE is positioned as the independent variable that influences three key behavioral traits.

The first mechanism involves behavioral traits entrepreneurial intention, self-efficacy, and action-taking behavior which serve as mediating variables between EE and startup success. According to Krueger et al., 2000 entrepreneurial intention refers to a student's psychological commitment to pursue entrepreneurship, shaped by perceived desirability and feasibility. While Self-efficacy reflects the belief in one's ability to perform entrepreneurial tasks successfully. It mediates the translation of intention into action and is influenced by experiential learning, mentorship, and institutional support. Lastly, Action-taking behavior represents the execution of entrepreneurial intent, including steps such as product development, market testing, and business registration. These traits are essential for translating educational input into entrepreneurial output, and their development is a key indicator of EE effectiveness.

These behavioral traits are conceptualized as mediating variables that determine whether EE leads to concrete entrepreneurial outcomes. The framework assumes that EE alone is insufficient unless it cultivates the internal dispositions necessary for entrepreneurial action.

2.2. Contextual Factors as Moderators

The second mechanism centers on contextual factors are access to funding, mentorship quality, and industry type which moderate the relationship between EE and entrepreneurial outcomes. Funding access determines the feasibility of venture creation, with students often constrained by limited capital. Based on Sum & Saad, 2017 the availability of financial resources such as grants, loans, or seed capital that support student entrepreneurs in launching and sustaining their ventures. Funding access influences the feasibility of entrepreneurial action and can either enable or constrain venture creation.

While, Mentorship quality influences strategic decision-making and resilience, with experienced mentors providing critical guidance during the startup phase. The relevance, experience, and engagement level of mentors assigned to student entrepreneurs. High-quality mentorship enhances strategic decision-making, confidence, and resilience, while poor mentorship may hinder entrepreneurial development (St-Jean & Audet, 2012; Azlan et al., 2022).

Lastly, industry type where sector or domain in which student ventures operate, such as retail, services, agriculture, or digital technology. Different industries present unique challenges and resource requirements, affecting the applicability of EE and the likelihood of startup success (OECD, 2019; MARA, 2022). These contextual factors are conceptualized as moderators that influence the strength and direction of the relationship between EE and entrepreneurial outcomes. Their inclusion reflects the reality that entrepreneurship does not occur in a vacuum but is shaped by institutional, economic, and sectoral conditions.

2.3. Startup Success as the Dependent Variable

Startup success is defined as the achievement of early-stage entrepreneurial outcomes such as venture creation, operational continuity, revenue generation, and customer acquisition. It serves as the dependent variable in this framework and is measured through performance indicators relevant to student-led businesses within the MARA ecosystem.

2.4. Conceptual Model Overview

The proposed conceptual framework positions EE as the independent variable, behavioral traits (entrepreneurial intention, self-efficacy, and action-taking behavior) as mediators, contextual factors (funding access, mentorship quality, and industry type) as moderators, and startup success as the dependent variable. This integrated model reflects the complex interplay between education, individual disposition, and environmental conditions in shaping entrepreneurial outcomes. The framework also supports the development of the Entrepreneurial Discovery & Readiness Assessment Toolkit, which operationalizes the behavioral and contextual variables to evaluate student readiness and guide institutional interventions. By aligning EE delivery with student needs and ecosystem realities, the framework aims to enhance the efficacy of entrepreneurship education within MARA Professional Colleges and contribute to Malaysia's broader entrepreneurial agenda.

3.0 THEORETICAL FRAMEWORK

3.1. Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (Krueger et al., 2000) is widely used to explain entrepreneurial intention and behavior. It suggests that intention is the most immediate predictor of behavior, shaped by three components which are attitude toward the behavior, subjective norms, and perceived behavioral control. In entrepreneurial contexts, TPB has been applied to understand how students' attitudes toward entrepreneurship, social influences, and confidence in their capabilities affect their likelihood of starting a business (Krueger et al., 2000).

Ajzen's model has been proven across diverse educational settings. For instance, Krueger (2000) found that TPB variables significantly predicted entrepreneurial intention among Norwegian business students. Similarly, Iakovleva et al. (2011) demonstrated that TPB constructs were robust predictors of entrepreneurial intention across 37 countries, including Malaysia. TPB's emphasis on perceived behavioral control aligns with Bandura's concept of self-efficacy, reinforcing the idea that students must believe in their ability to perform entrepreneurial tasks for intention to translate into action.

In the MARA context, TPB provides a theoretical basis for examining how EE influences students' entrepreneurial intention and self-efficacy. It supports the combining of these traits as mediators in the proposed framework, explaining why some students act on their intentions while others do not. As noted by Nabi et al. (2017), EE can enhance TPB components, particularly when delivered through experiential and reflective learning.

3.2. Event Base Entrepreneurship (EBC)

Fisher, Josefy & Neubert (2024) Event Base Entrepreneurship (EBC) complements TPB by emphasizing the role of perceived desirability, perceived feasibility, and the propensity to act. EBC suggests that entrepreneurial behavior is often triggered by a displacement event such as graduation, unemployment, or institutional encouragement that prompts individuals to consider entrepreneurship as a viable path.

Perceived desirability is shaped by how attractive entrepreneurship appears to the individual, often influenced by EE exposure, success stories, and peer influence (Krueger, 2000). Perceived feasibility relates to the individual's belief in their ability to succeed, which is closely tied to self-efficacy and institutional support (Fisher, Josefy & Neubert, 2024). The propensity to act reflects the behavioral trait of action-taking, which is central to this study.

EBE has been applied in various studies to explain entrepreneurial intention among students (Krueger & Brazeal, 2024). In the MARA setting, EBE helps explain why some students transition from intention to venture creation while others do not. It reinforces the need for EE programs to enhance both desirability and feasibility through mentorship, funding access, and sector-specific exposure.

3.3. Effectuation Theory

Effectuation Theory, introduced by Sarasvathy (2019), offers a non-linear perspective on entrepreneurial decision-making. It posits that entrepreneurs start with available means who they are, what they know, and whom they know and co-create opportunities through iterative action. This contrasts with effect models that rely on predictive planning.

Effectuation is particularly relevant in resource-constrained environments like MARA, where students may lack access to capital or established networks. The theory's principles bird-in-hand, affordable loss, crazy quilt, lemonade, and pilot in the plane emphasize adaptability, partnership-building, and leveraging contingencies (Sarasvathy, 2019). These principles align with contextual factors in this study, such as mentorship quality and industry type.

Empirical studies support the relevance of effectuation in EE. Read et al. (2009) found that effectual logic improves entrepreneurial performance in uncertain environments. Alsos et al. (2016) demonstrated that effectuation enhances opportunity recognition and venture resilience among student entrepreneurs. In the MARA context, effectuation theory justifies the inclusion of contextual moderators and supports the development of adaptive EE models.

3.4. Integration of Theories into the Proposed Framework

The integration of TPB, EBE, Effectuation Theory, Personality Trait Theory, and Competency Models provide a comprehensive foundation for the proposed conceptual framework. TPB and EBE explain the formation of entrepreneurial intention and the transition to action. Effectuation Theory highlights the role of adaptability and context. Personality Trait Theory underscores individual predispositions, while competency models focus on learnable behaviors linked to performance.

Together, these theories justify the inclusion of behavioral traits entrepreneurial intention, self-efficacy, and action-taking behavior as mediators, and contextual factors funding access, mentorship quality, and industry type as moderators. The framework reflects the dynamic interplay between education, individual disposition, and environmental conditions, offering a robust model for enhancing EE outcomes in MARA Professional Colleges as below:

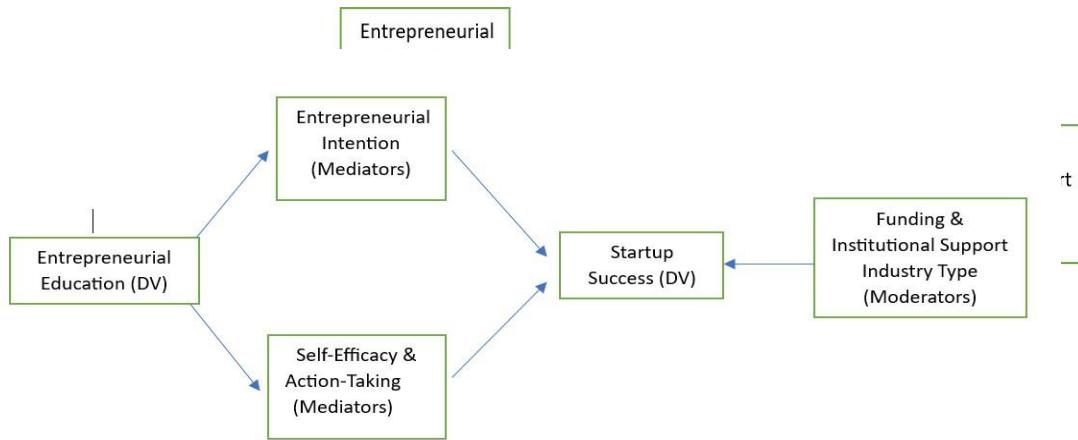


Figure 1: Theoretical Framework

4.0 CONCLUSION

The comprehensive conceptual framework developed in this study offers a crucial guide for transforming entrepreneurial education and fostering sustainable startup success among Malaysian youth in MARA Professional Colleges. By integrating established theories such as the Theory of Planned Behaviour, Event-Based Entrepreneurship Model and Effectuation Theory the framework provides a robust understanding of how behavioural traits (intention, self-efficacy, action-taking) and contextual factors (funding, mentorship quality, industry type) interact to shape entrepreneurial outcomes. This multi-theoretical synthesis offers a nuanced lens to optimize Entrepreneurial Education programs, creating a more effective and supportive entrepreneurial ecosystem.

The implications for policy and management are profound and actionable. For policymakers, this framework necessitates a strategic pivot towards national guidelines that mandate experiential learning, sector-specific EE modules, and standardized, behaviour-focused assessment tools to accurately gauge entrepreneurial readiness; Policies must also address the fragmentation in post-graduation support, ensuring consistent access to capital and quality mentorship. This aligns educational outcomes with national goals like the National Entrepreneurship Policy 2030 and MARA's target of 50,000 new businesses by 2025. Managers within MARA institutions are called to implement these policies through practical strategies which is prioritizing the integration of experiential learning, developing tailored programs that cater to diverse student needs and specific industry demands (including digital services), and building robust networks for quality mentorship.

Furthermore, this framework is particularly strong for advancing technopreneurship education and strengthening Malaysia's digital entrepreneurship ecosystem. By emphasizing sector-specific EE, the framework inherently supports the cultivation of digital literacy, technological innovation, and new business models crucial for the digital economy. Implementing this framework will empower MARA institutions to produce graduates uniquely equipped for technology-driven ventures, thus contributing significantly to Malaysia's competitive edge in the digital age. Ultimately, this research provides a powerful blueprint for

fostering resilient, opportunity-driven entrepreneurs instrumental in driving the nation's socioeconomic development.

Acknowledgements

I would like to express my sincere gratitude to all those who contributed to the completion of this article. First and foremost, I am deeply indebted to my supervisor whose giving me guidance, constructive feedback, and encouragement have been invaluable throughout the research and writing process. I also extend my appreciation to colleagues and peers who provided insightful discussions and shared their perspectives, which enriched the quality of this work. I am equally grateful to my husband, two beautiful kids, family and friends for their patience, motivation, and unwavering belief in my efforts. Without the collective support of these individuals and groups, this article would not have been possible.

References

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

Ahmad, N. H., Halim, H. A., & Zainal, N. (2018). Entrepreneurship education and entrepreneurial intentions in Malaysia. *Journal of Entrepreneurship Education*, 21(3), 1–13.

Fisher, G., Josefy, M. A., & Neubert, E. (2024). Event-based entrepreneurship. *Journal of Business Venturing*

Read, S., Sarasvathy, S. D., Dew, N., & Wiltbank, R. (2019). Effectual entrepreneurship: An update. *Small Business Economics*, 53(2), 475–482

Ali, M., & Rahman, N. (2022). Funding access and entrepreneurial success among Malaysian youth. *Journal of Small Business and Enterprise Development*, 29(4), 567–583.

Ambad, S. N. A., Rosnan, H., & Samat, M. F. (2024). The effect of empathy, self-efficacy, and perceived social support on social entrepreneurial intention among youth in Malaysia. *Journal of Entrepreneurship and Business Innovation*, 11(2), 45–63. <https://doi.org/10.5296/jebi.v11i2.21963>

Azlan, M., Sulaiman, S., & Rahim, H. L. (2022). Mentorship quality and entrepreneurial success among Malaysian youth. *Asian Journal of Entrepreneurship*, 3(1), 45–60.

Azlan, M., & Hassan, R. (2023). Entrepreneurial intention and self-efficacy among MARA students. *Asian Journal of Entrepreneurship*, 4(2), 67–82.

Azmi, I. A. G., & Ismail, N. (2020). Entrepreneurship education and employability among Malaysian graduates. *Asian Journal of Business Research*, 10(3), 45–60.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.

Chin, J. W., Mustafa, M. J., & Nungsari, M. (2024). Subjective norms towards entrepreneurship and Malaysian students' entrepreneurial intentions: Does gender matter? *Asia Pacific Journal of Innovation and Entrepreneurship*, 18(2), 195–208. <https://doi.org/10.1108/APJIE-09-2023-0180>

GEM. (2020). *Global Entrepreneurship Monitor: Youth and startups*. GEM Consortium.

GEM. (2021). *Malaysia Entrepreneurship Report*. GEM Consortium.

GEM. (2023). *Global Entrepreneurship Monitor: Malaysia*. GEM Consortium.

GEM. (2024). *Global Entrepreneurship Monitor: Youth and startups in Malaysia*. GEM Consortium.

Gunaseelan, K., Subramaniam, T. S., Sern, L. C., Jabor, M. K., & Rathakrishnan, G. (2022). Digital entrepreneurship among higher education students in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 12(9), 14842. <https://doi.org/10.6007/IJARBSS/v12-i9/14842>

Hashim, N., & Ab Wahid, H. (2024). Systematic literature review of entrepreneurship mentoring in higher education: A comparative study of Malaysia, China, USA, and UK. *Journal of Entrepreneurship Studies*, 21(3), 122–135.

Hassan, R., Rahman, N. A., & Saad, S. (2020). Entrepreneurship education in Malaysia: Issues and

challenges. *Journal of Entrepreneurship and Business*, 8(2), 1–15.

Hassan, R., et al. (2021). Entrepreneurial readiness among Malaysian youth: Evidence from MARA colleges. *International Journal of Academic Research in Business and Social Sciences*, 11(6), 123–137.

Kassim, S., Ahmad Fadzil, A. S., Ibrahim, K., Mohamed, N. A., & Wan Mohamed, N. R. (2024). Conceptualising mentorship pedagogy on entrepreneurship intention: A TPB perspective. *Social and Management Research Journal*, 21(2), 11–19. <https://doi.org/10.24191/smrj.v21i2.27616>

Lorz, M., Mueller, S., & Volery, T. (2020). Entrepreneurship education: A systematic review of the methods in impact studies. *Journal of Enterprising Culture*, 28(2), 123–152.

MARA. (2022). *MARA Strategic Plan 2021–2025*. Majlis Amanah Rakyat.

MARA. (2024). *Entrepreneurship sector initiatives*. Majlis Amanah Rakyat. Retrieved from <https://www.mara.gov.my/en/index/entrepreneurship-sector/>

MYStartup. (2023). *Malaysia's startup ecosystem and accelerator programs*. Ministry of Science, Technology and Innovation. Retrieved from <https://www.mystartup.gov.my>

Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2018). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning & Education*, 17(2), 134–149.

Nabi, G., & Holden, R. (2019). Entrepreneurial intentions and behaviors of students in Malaysia. *Education + Training*, 61(1), 20–37.

OECD. (2021). *Entrepreneurship education in Asia: Policy and practice*. OECD Publishing.

OECD. (2024). *Entrepreneurship education and digital economy*. OECD Publishing.

Rahim, H. L., & Saad, S. (2019). Entrepreneurial competencies and startup success in Malaysia. *International Journal of Business and Society*, 20(2), 457–472.

Ren, Z., & Rahim, H. L. (2023). Technopreneurship education in Malaysia: Challenges and opportunities. *Journal of Entrepreneurship Education*, 26(3), 1–15.

Ren, Z., Rahim, H. L., & Aziz, N. A. (2024). Strategic approaches to entrepreneurship education in Malaysia: Policy and practice. *International Journal of Academic Research in Business and Social Sciences*, 14(7), 21937.

Ren, Z., & Aziz, N. A. (2024). Entrepreneurial competencies and startup success in Malaysian colleges. *International Journal of Academic Research in Business and Social Sciences*, 14(7), 21945.

Salleh, F., & Ibrahim, M. (2021). Entrepreneurial self-efficacy and startup readiness among Malaysian youth. *Journal of Entrepreneurship, Business and Economics*, 9(2), 45–67.

Sabirah, S., Mohd Yusof, S. N. L., & Amaran, M. A. (2024). State of entrepreneurship education in Malaysia: A comparison of programs in public universities to international practice. *Journal of Economics and Sustainability*, 6(2), 84–103.

Sabirah, S., & Amaran, M. A. (2024). Digital entrepreneurship education in Malaysia. *Journal of Economics and Sustainability*, 6(2), 104–118.

Sharon, A. (2024, April 30). Technopreneurship driving Malaysia's vision for economic growth. *OpenGov Asia*.

St-Jean, E., & Audet, J. (2022). The role of mentorship in entrepreneurial education. *Entrepreneurship Education Review*, 12(1), 33–49.

World Bank. (2023). *Entrepreneurship education programs: Global review*. Washington, DC: World Bank.

World Bank. (2023). *Youth entrepreneurship programs in Southeast Asia*. Washington, DC: World Bank.

WORQ. (2023). Startup funding in Malaysia: 8 ways to get funded and how to apply. Retrieved from <https://worq.space/blog/startups-fundings-malaysia>