ENTREPRENEURIAL SKILLS DEVELOPMENT: EDUCATION CENTRES OR EXPERIENTIAL LEARNING? A REVIEW

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(Received 18th March 2026; revised 26th June 2026; accepted 28th July 2026)

Abstract. Entrepreneurial skills are increasingly recognised as essential capabilities for success in a rapidly changing global and digital economy. Through demonstrated links to innovation, job creation, business growth, and local economic development. This article reviews whether education centres or experiential learning approaches are more effective vehicles for developing entrepreneurial skills. Drawing on a synthesis of evidence reported in prior empirical and review studies, the analysis conceptualises entrepreneurial skills as multidimensional clusters encompassing creativity and innovation, opportunity recognition, initiative and execution, problem-solving and decision-making. The reviewed literature indicates that entrepreneurship education in universities and training programmes strengthens human capital by enhancing self-efficacy, creativity, risk-taking, innovativeness, and specific competencies Across studies, experiential and active learning ("learning by doing") including internships, project-based and digital business projects, business simulations, real-world challenges, industrial and cross-border visits, community engagement, service learning, mentorship, and cultural immersion consistently reinforces theoretical knowledge through authentic application and is frequently reported to outperform purely traditional methods in developing competencies and entrepreneurial intentions. Malaysia provides a salient context where national policy positions entrepreneurship as a lever for economic transformation; university initiatives such as co-curricular programmes, and experiential projects and targeted interventions are associated with strengthened competencies. In contrast, rural digital entrepreneurship remains constrained by limited digital literacy and access to resources. Key implications emphasise integrating curricula with structured experiential components, improving TVET through industry collaboration and flexible workplace learning, pairing government support with digital skills development, addressing policies, and coordinating institutional ecosystems to reduce fragmentation and bureaucracy. Thereby advancing inclusive, innovation-driven growth and reducing unemployment.
Keywords: *entrepreneurial skills, digital economy, Malaysia, entrepreneurship education*

Introduction

Entrepreneurial skills are increasingly seen as core capabilities for thriving in a rapidly changing, digital and global economy. Research links these skills not only to individual career success but also to innovation, job creation, and broader economic and local development. Education centres and experiential learning approaches are key vehicles for developing these competencies, including within Malaysia's evolving innovation agenda.

Importance of entrepreneurial skills in the modern economy

Entrepreneurship is a catalyst for innovation, job creation, and economic growth, rendering entrepreneurial skills essential for both individual and collective success (Bardales-Cárdenas et al., 2024; Crețu et al., 2024; Pennetta et al., 2024; Mamabolo et al., 2017). These skills facilitate business expansion by enhancing strategic planning,

fostering innovation, and enabling adaptability in uncertain and digital market environments (Botella-Carrubi et al., 2024; Pennetta et al., 2024; Jardim, 2021). The entrepreneurial competencies of university students, including absorption, innovation, learning, and adaptation, exert a significant positive influence on local economic development (Bardales-Cárdenas et al., 2024). This is important because frameworks underscore the importance of creativity and innovation, initiative, problem-solving, resilience, leadership, teamwork, and effective communication, including digital communication, as essential competencies for thriving in a global, digital environment (Botella-Carrubi et al., 2024; Pennetta et al., 2024; Rahmawati et al., 2023; Jardim, 2021;Mamabolo et al., 2017).

Table 1. *Core entrepreneurial skill cluster emphased across studies*.

Skill cluster	Examples (modern economy focus)	Citations
Opportunity & innovation	Creativity, opportunity recognition, idea generation	(Jardim, 2021; Pennetta et al., 2024; Rahmawati et al., 2023; Bardales-Cárdenas et al., 2024)
Action & execution	Strategic planning, decision-making, perseverance	(Jardim, 2021; Pennetta et al., 2024; Mamabolo et al., 2017)
People & networks	Teamwork, networking, relationship competencies	(Jardim, 2021; Al Mamun et al., 2019; Mamabolo et al., 2017)
Digital & communication	Digital literacy, clear and visual communication	(Jardim, 2021; Yusof et al., 2022; Botella-Carrubi et al., 2024)

Role of education centres and experiental learning

Entrepeneurship education as human capital

Entrepreneurial education fosters self-efficacy, creativity, risk-taking, and innovativeness key drivers of entrepreneurial success and economic growth (Branca et al., 2025; Zainullina et al., 2024; Motta and Galina, 2023; Van Gelderen, 2023; Mamabolo and Myres, 2020). Training and university courses can significantly enhance specific competencies, such as opportunity recognition, organisational skills, and relationship-building abilities (Al Mamun et al., 2019). These educational interventions not only equip learners with practical skills but also nurture an entrepreneurial mindset essential for navigating complex business environments. Experiential learning, including internships and project-based activities, reinforces theoretical knowledge by providing real-world applications. Consequently, such approaches contribute significantly to developing resilient and adaptable entrepreneurs capable of driving innovation and economic development.

Experiental and active learning

Experiential learning, or "learning by doing," positively influences entrepreneurial intention and skill and competency development, often surpassing purely traditional methods (Branca et al., 2025; Motta and Galina, 2023; Van Gelderen, 2023). Effective strategies encompass digital business projects, business simulations, real-world challenges, industrial visits, community engagement, and cultural immersion (Fadhil et al., 2025; Nipis et al., 2025; Rahmawati et al., 2023; Rosli et al., 2023; Van Gelderen, 2023; Yusof et al., 2022). Experiential and active learning methods foster entrepreneurial intention by immersing learners in authentic, hands-on environments that enhance both cognitive and practical skills. These approaches, such as digital business projects and business simulations, enable learners to apply theoretical concepts to real-world scenarios, thereby improving critical thinking, problem-solving, and decision-making abilities (Branca et al., 2025; Motta and Galina, 2023). Furthermore,

activities like industrial visits and community engagement expose learners to diverse cultural and market contexts, broadening their perspectives and encouraging innovative thinking (Rahmawati et al., 2023; Yusof et al., 2022). By integrating reflective practice within these experiences, learners develop adaptability and resilience, essential traits for navigating the uncertainties of entrepreneurship (Nipis et al., 2025; Van Gelderen, 2023;). Collectively, these strategies create a dynamic learning ecosystem that not only prepares learners to launch ventures but also equips them to sustain and grow businesses in competitive environments (Fadhil et al., 2025; Rosli et al., 2023).

Malaysia as a relevant context for the study

National policy and higher education

Malaysia's higher education and national entrepreneurship policies explicitly designate entrepreneurship as a catalyst for economic transformation and the development of a high-income, innovation-driven economy (Nipis et al., 2025; Rosli et al., 2023; Yong, 2022). Universities, such as Universiti Malaysia Terengganu and MASMED, offer entrepreneurship courses, experiential projects, and cocurricular activities to cultivate students' entrepreneurial mindset and intentions (Nipis et al., 2025; Rosli et al., 2023; Yong, 2022; Yusof et al., 2022).

Experiential initiatives in Malaysia

Digital business projects in Malaysian entrepreneurship courses enhance digital literacy, foster an entrepreneurial mindset, and increase perceived learning value (Yusof et al., 2022). Industrial and cross-border visits, such as those to Beryl’s Chocolate in Malaysia or collaborations between universities in Indonesia and Malaysia, employ service learning, mentorship, and cultural collaboration to bolster entrepreneurial and cross-cultural competencies (Fadhil et al., 2025; Rahmawati et al., 2023). Microenterprise training programs in Peninsular Malaysia have been shown to significantly enhance core competencies among low-income microentrepreneurs, thereby supporting socio-economic advancement (Al Mamun et al., 2019).

Suggestion for improving entrepreneur skill development in Malaysia

To enhance entrepreneurship skills development in Malaysia, a multi-faceted approach that addresses education, training, government support, and socio-cultural factors is essential. The current research context highlights several challenges and opportunities that, when addressed holistically, can foster stronger entrepreneurial competencies and intentions, thereby contributing to economic growth and reducing unemployment.

Strengthen entrepreneurial education and training

Entrepreneurial competencies such as opportunity recognition, innovativeness, information-seeking, and startup preparation significantly influence entrepreneurial intentions among students and microentrepreneurs in Malaysia. Studies indicate the need for entrepreneurial education programs to explicitly focus on developing these competencies to prepare students and aspiring entrepreneurs for real-world challenges effectively (Al Mamun et al., 2019; Al Mamun et al., 2016). The curriculum enhancements should be prirotise. Universities and higher education institutions should

integrate entrepreneurial training that goes beyond theoretical knowledge to develop practical skills, such as opportunity recognition and innovation. This would increase entrepreneurial intention among graduates, thereby addressing graduate unemployment (Al Mamun et al., 2019; Al Mamun et al., 2016). Besides, vocational and skills training can be focused on. The Technical and Vocational Education and Training (TVET) system holds potential to reduce skills gaps. However, TVET currently faces challenges, including limited industry experience among teachers and fragmentation. Improving the quality of TVET by incorporating industry collaboration, flexible workplace learning, and AI-powered training tools could better prepare entrepreneurs at the grassroots level (Amdan et al., 2024; Mustapha, 2017).

Leverage digital literacy and government support synergistically

Digital entrepreneurship in rural Malaysia suffers from limited digital literacy and access to resources. Although government support alone does not significantly impact digital entrepreneurship, its combination with increased digital literacy considerably enhances entrepreneurial outcomes (Mohamad et al., 2025). Government should strategise targeted training programs. The government should prioritise practical training programs such as workshops and mentoring in collaboration with academic institutions to improve digital skills among small business owners and youth entrepreneurs, especially in rural areas (Mohamad et al., 2025). In addition, with the integrated support frameworks this will give big impact on the entrepreneur skills and education. Creating integrated support systems that combine financial aid, legal assistance, and digital skills development will address the multifaceted needs of entrepreneurs, improving the utilisation of government aid (Ahmad and Xavier, 2012).

Reform policy and institutional ecosystems

Inconsistent policies, bureaucracy, and inadequate entrepreneurial education at various levels hinder entrepreneurial development in Malaysia. To optimise the entrepreneurial environment. It is undenialable the policy consistency and coordination need to be formed. Establish clear, consistent government policies directed at entrepreneurship, including enhanced coordination within the TVET system and across multiple government agencies, to maximise resource utilisation (Srinivasan et al., 2025; Ahmad and Xavier, 2012). Strengthen Entrepreneurial Ecosystem is the area that should be explored. Support schemes should emphasise continuous skill development, innovation, and sustainability in entrepreneurship, aligning with Malaysia's broader economic development goals (Srinivasan et al., 2025). Improving entrepreneurship skills development in Malaysia requires a comprehensive strategy that blends enhanced educational frameworks, digital literacy, effective government support, and coherent policy and institutional reforms. Such initiatives will better equip Malaysians to engage in entrepreneurial activities that foster sustainable economic growth and reduce unemployment (Mohamad et al., 2025; Srinivasan et al., 2025; Al Mamun et al., 2016; Teoh and Chong, 2014; Ahmad and Xavier, 2012) (*Table 2*).

***Table 2**. Summary of recommendation.*

Focus Area	Recommended Actions	Supporting Evidence
Entrepreneurial Education & Training	Enhance entrepreneurial curricula focusing on opportunity recognition, innovation, and startup readiness; reform TVET with industry involvement and AI-assisted learning	(Al Mamun et al., 2016; Al Mamun et al., 2019; Mustapha, 2017; Amdan et al., 2024)

Digital Skills and Government Support	Combine digital literacy programs with government aid to empower rural entrepreneurs; provide training workshops and mentorship	(Mohamad et al., 2025; Ahmad and Xavier, 2012)
Policy and Institutional Framework	Ensure consistent entrepreneurial policies; improve coordination within TVET and entrepreneurial institutions; support continuous innovation and ecosystem development	(Ahmad and Xavier, 2012; Srinivasan et al., 2025)

Conclusion

Entrepreneurial skills spanning creativity, opportunity recognition, execution, resilience, communication, and digital literacy are central to competing and innovating in today's global, digital economy. Education centres, especially universities, are crucial platforms for developing these skills, with experiential and active learning approaches proving particularly effective. Malaysia provides a timely, policy-rich context in which entrepreneurship education, experiential activities, and targeted training programs are leveraged to build entrepreneurial competencies that support national economic transformation and inclusive development. Entrepreneurial skills encompass a broad range of competencies essential for thriving in the modern, interconnected digital economy. These include creativity, which fuels innovative thinking; opportunity recognition, enabling individuals to identify viable business opportunities; execution, which involves turning ideas into tangible outcomes; resilience to navigate challenges; effective communication to engage stakeholders; and digital literacy, which is critical for leveraging technology in business processes. Developing these skills is increasingly recognised as vital not only for individual success but also for driving national economic growth and competitiveness. Universities and education centres play a pivotal role in nurturing these entrepreneurial capabilities through experiential and active learning methodologies. Such approaches, ranging from hands-on projects and internships to simulations and real-world problem solving, enhance students' practical understanding and readiness to innovate. Malaysia's policy environment actively supports this educational focus by integrating entrepreneurship education with targeted training programs to build a skilled entrepreneurial workforce. This alignment aims to contribute to the country's broader goals of economic transformation and inclusive development by equipping learners with the competencies needed to create sustainable ventures and adapt to evolving market demands.

Recommendation for future research

Future research should focus on longitudinal studies that explore the long-term impact of different educational approaches on entrepreneurial skill development. Investigating how diverse experiential learning methods, such as virtual internships or entrepreneurial competitions, influence skills can provide deeper insights into best practices. Additionally, comparative studies between urban and rural settings in Malaysia and other countries can shed light on specific regional challenges and opportunities in fostering entrepreneurial capabilities. Research could also examine the role of technology in enhancing experiential learning and its effectiveness in developing critical competencies. Finally, exploring the integration of entrepreneurship education with other disciplines and its effect on innovation should be prioritised to create a more holistic educational framework that meets the demands of the rapidly evolving digital economy.

Acknowledgement

This research is self-funded.

Conflict of interest

The authors confirm that there are no conflicts of interest with any parties involved in this research study.

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