



Addressing Regional Disparities in High School Entrepreneurship
Education in a Developing Country

✉ **Muhammad Ahmi Husein¹; Lavinia Disa Winona Araminta²; Devinta
Nur Arumsari¹**

¹*Faculty of Economics and Business, UPN Veteran Jawa Timur, Indonesia*

²*Faculty of Education, Monash University, Australia*

✉ m.ahmi.h.kwu@upnjatim.ac.id

ARTICLE INFORMATION	ABSTRACT
Received: 8 th , August 2025 Revised: 30 th , August 2025 Accepted: 24 th , October 2025 <i>Keywords: Regional Disparities, Entrepreneurship, Education.</i>	Entrepreneurship education is a critical driver of entrepreneurial skills and mindsets, yet its implementation often faces inequities, particularly in developing countries like Indonesia. Urban high schools, primarily on Java Island, benefit from practical learning opportunities, while rural and underdeveloped regions lack resources and access. This study investigates these disparities by exploring the experiences of university students enrolled in business-related courses about the entrepreneurship education gained during high school across diverse provinces. Using purposive sampling and inductive thematic analysis, the research captures perspectives from both developed and underdeveloped regions, highlighting the inequitable access to entrepreneurial opportunities. The findings show that urban schools provide more hands-on activities, like product creation and market engagement, while rural students face fewer opportunities and resources. The study highlights the need for practical learning methods and blended approaches to reduce these gaps. By offering insights for policymakers, this research aims to promote fair and effective entrepreneurship education programs. Addressing these regional disparities could make entrepreneurship education a powerful tool for socio-economic development, empowering students across Indonesia and fostering innovation in underserved areas.

INTRODUCTION

Entrepreneurship education has emerged as a critical component of fostering innovation, economic development, and employment generation worldwide (Shen & Huang, 2023; Smallbone et al., 2014). In developing countries such as Indonesia, where economic disparity and unemployment persist, entrepreneurial skills are pivotal for equipping individuals with the capacity to create sustainable livelihoods. High school education, as a formative phase, plays a vital role in instilling entrepreneurial mindsets and foundational skills that can shape future business leaders and innovators (Debarliev et al., 2022; Sugiono et al., 2019). Research indicates that entrepreneurship education significantly influences students' entrepreneurial intentions, particularly among younger girls in regular education and older boys in vocational programs (Hidayatulloh & Ashoumi, 2022; Porfírio et al., 2022; Timan et al., 2024).

Incorporating entrepreneurship into school curricula is advocated to cultivate an entrepreneurial culture through innovative practices like student-entrepreneur interactions and attachments (Ejiogu & Nwajiuba, 2012). Despite its acknowledged significance, entrepreneurship education in high schools within developing countries has often been examined in a limited way, primarily focusing on specific regions (du Toit & Gaotlhobogwe, 2018; Ejiogu & Nwajiuba, 2012; Widyastuti et al., 2023). This approach overlooks the diverse education and economic backgrounds present in these countries. Research on the equity of entrepreneurship education is still lacking, particularly regarding regional disparities and resource constraints. Auguste (Auguste, 2020) highlight the need for comprehensive assessment approaches and consideration of socioeconomic factors in entrepreneurship education programs.

The Indonesian education system faces significant challenges in delivering equitable and effective entrepreneurship education. Geographic disparities between urban and rural areas exacerbate inequalities in access to resources and opportunities. While urban schools in Java often provide diverse entrepreneurial activities (Hutasuhut & Aditia, 2022; Saptono et al., 2020), schools in underdeveloped regions, such as Papua Sumatra and Kalimantan, struggle with limited infrastructure, a lack of qualified educators, and restricted exposure to real-world entrepreneurial experiences (Amalia & von Korflesch, 2021; Evellin Dewi Lusiana et al., 2021). Furthermore, current pedagogical approaches in many high schools tend to emphasize theoretical knowledge over practical, hands-on learning, leaving students underprepared for the dynamic challenges of entrepreneurship (Gonzalez, 2022; Hoppe & Namdar, 2023). These gaps not only hinder the development of entrepreneurial skills but also perpetuate regional economic disparities, limiting the broader impact of entrepreneurship education.

To address these challenges, this study explores the contextual dynamics of entrepreneurship education in Indonesian high schools by capturing the perspectives of university students who experienced these programs. It aims to provide actionable insights into how entrepreneurship education can be enhanced to bridge geographic disparities and align more closely with real-world demands. By focusing on foundational entrepreneurial skills, practical exposure, and the integration of innovative learning methods, this research seeks to inform strategies for creating more inclusive and impactful entrepreneurship education across Indonesia.

By investigating the entrepreneurial education experiences of students from diverse regions, this study not only highlights the gaps in current practices but also proposes targeted improvements to foster innovation, resilience, and socio-economic development. The findings contribute to the global discourse on entrepreneurship education, offering evidence-based recommendations for policymakers, educators, and practitioners to design more effective and equitable programs that prepare future generations for entrepreneurial success.

LITERATURE REVIEW

Technological Challenges in Digital Learning

Digital learning has undeniably transformed the educational landscape, extending the reach of remote learning through platforms like Google, Zoom, YouTube, and social media (Ndibalema, 2022; Palvia et al., 2018). These tools have made it possible for students in even the most isolated areas to access a wide array of educational resources, marking a significant step forward in accessibility (Pokhrel & Chhetri, 2021).

Despite these advancements, the effectiveness of online learning is still a subject of considerable debate. While digital platforms have succeeded in breaking down geographical barriers, many studies suggest that they may not be as effective in delivering the same quality of education as traditional methods (Bose, 2014; Gaskell & Mills, 2014). The challenges are particularly pronounced in regions with poor internet infrastructure, where unstable connections and limited data availability can disrupt learning (Abou-Khalil et al., 2021; Ofori Atakorah et al., 2023). Additionally, the inherent limitations of online platforms, such as reduced opportunities for interaction and personalised learning, further compromise the educational experience (Joaquin et al., 2020; Perera & Gamage, 2021).

The debate is whether broader access benefits outweigh potential quality compromises. Can digital learning's convenience be balanced with the need for engaging educational experiences? This ongoing discussion is crucial for leveraging technology without sacrificing education quality.

Entrepreneurship Education in Developing Countries

Entrepreneurship education is widely recognised as a key driver of economic growth, particularly in developing countries, where it is essential for fostering innovation, job creation, and addressing socio-economic challenges (Iyer, 2015; Sutter et al., 2019). Research highlights that entrepreneurship education in these contexts often diverges from approaches seen in more developed regions, typically placing greater emphasis on practical learning, mentorship, and community engagement (Binks et al., 2006). However, integrating technology into entrepreneurship education in developing countries remains an underexplored area, with a limited understanding of how these tools can be adapted to local needs and conditions (du Toit & Gaotlhobogwe, 2018; Suzanne L. Reinman, 2015).

The literature reveals a critical gap in understanding how technological advancements can be leveraged to enhance entrepreneurship education in resource-constrained environments. Some studies suggest that digital tools can democratise education by providing equal access to resources and learning opportunities, regardless of geographic location (Gulati, 2008). However, others argue that these tools may not be effective without the necessary infrastructure, such as reliable internet access and appropriate support systems (Asongu et al., 2019; Saleminck et al., 2017). This debate is particularly pertinent in Indonesia, where educational resources and access to technology are unevenly distributed between urban and rural areas (Onitsuka et al., 2018; Sujarwoto & Tampubolon, 2016). There is a pressing need for research that explores how digital learning can be tailored to meet the specific needs of entrepreneurship students in developing countries, ensuring that technological advancements contribute positively to educational outcomes rather than exacerbating existing inequalities (du Toit & Kempen, 2020).

Educational Inequality in Indonesia

Educational inequality in Indonesia is a well-documented issue, with significant disparities in access to quality education between urban and rural regions (Suryadarma & Jones, 2013). Students in urban centres typically benefit from better infrastructure, more experienced teachers, and greater access to learning resources, including technology while students in rural or remote areas often face significant challenges, including inadequate facilities, limited access to qualified educators, and poor internet connectivity (Purnastuti & Izzaty, 2016). These disparities contribute to a pronounced gap in educational outcomes, with rural students frequently lagging behind their urban counterparts in terms of academic achievement and access to higher education (Byun et al., 2012; Xiang & Stillwell, 2023).

In the context of entrepreneurship education, these inequalities are particularly concerning. Entrepreneurship requires a blend of theoretical knowledge and flexible perspectives learning, which can be difficult to acquire in environments with limited educational resources (Oosterbeek et al., 2010). While technological interventions hold the potential to bridge this gap by providing access to digital learning tools and resources, their success is contingent on several factors, including the availability of reliable internet access and the digital literacy of both students and educators (Aligica & Florian, 2008; Sing Yun, 2023). The existing literature underscores the need for targeted strategies to address these challenges, ensuring that technological advancements in education contribute to greater equity and access across all regions of Indonesia. This study aims to delve deeper into these issues, identifying the potential for technology to support entrepreneurship education in an inclusive and equitable manner.

RESEARCH METHODS

To ensure a representative sample of the entire population of Indonesia, a convenience sampling technique was used to select respondents from various provinces, including Java, Sulawesi, Papua, Bali, and Kalimantan. This sampling technique is believed to have relatively clearer generalizations to conventional convenience samples (Jager et al., 2017). The target respondents were university students enrolled in business-related programs to improve the homogeneity of the data. This approach was chosen

due to practical limitations, resources, and time constraints (Rubin & Babbie, 2016). By using this sampling technique, the study aims to provide a comprehensive understanding of the existence and effectiveness of entrepreneurship education in Indonesia.

Data collection employed a mixed-mode approach, including face-to-face interviews, phone calls, and WhatsApp chats, depending on the availability and convenience of the respondents. The interview questions focused on the respondents' entrepreneurship education experiences during high school. To ensure the accuracy and relevance of the data, respondents were asked to review and confirm their recorded responses after the interviews.

The data were analyzed using inductive thematic analysis, focusing on the scope of their entrepreneurship education experiences. Despite these efforts, the study acknowledges its limitations, particularly the small number of respondents, which restricts the generalizability of the findings to their respective provinces. Nonetheless, by engaging business-related university students, the study minimized bias, leveraging their familiarity with entrepreneurial concepts to provide insightful and relevant perspectives. This approach provides valuable insights into the regional disparities and opportunities for improving entrepreneurship education in Indonesian high schools.

RESULT AND DISCUSSION

Result

Table 1. Respondent Location Distribution

No	Respondent	Province
1	Ani	North Sumatra
2	Budi	Riau Islands
3	Chandra	East Java
4	Dedi	East Java
5	Elsa	East Java
6	Farhan	Jakarta
7	Gio	West Java
8	Hendra	West Sulawesi
9	Indra	West Papua
10	Jamal	West Papua
11	Kamal	Southwest Papua
12	Linda	South Papua

The study included 12 respondents from provinces across Indonesia, as shown from Table 1, representing both developed and underdeveloped regions. Participants from areas such as Jakarta, West Java, and North Sumatra provided insights into entrepreneurship education in developed regions with greater access to resources and opportunities. Meanwhile, respondents from West Sulawesi, West Papua, Southwest Papua, and South Papua shared experiences from underdeveloped and rural areas. This diverse geographic representation enabled the study to explore regional differences and similarities in entrepreneurship education, particularly regarding access to resources, practical learning opportunities, and program implementation. The inclusion of respondents from both Java and regions outside Java ensured a comprehensive understanding of the challenges and strengths within Indonesia's entrepreneurship education landscape.

In this section, the contextual analysis of entrepreneurship education in Indonesian high schools revealed two primary themes: (1) the emphasis of entrepreneurship education and (2) strategies to enhance its quality.

Theme 1: Emphasis on Foundational Entrepreneurship Education in High Schools

Participants highlighted the need for high schools to focus on instilling foundational entrepreneurial skills and fostering innovative thinking. Several participants emphasized that entrepreneurship education

should aim to develop entrepreneurial mindsets, which are critical for long-term character development. For instance, a participant from Batam stated:

"Schools should cultivate the entrepreneurial mindset in students, as this will profoundly influence their character development in the long term."

The importance of structured entrepreneurial planning emerged strongly, with a participant from Medan noting that many students venture into entrepreneurship without adequate preparation, leading to suboptimal outcomes:

"High schools should prioritize equipping students with the ability to identify business opportunities and create well-structured business plans or business model canvases."

Participants also described the value of hands-on activities in nurturing creativity and responsibility. A respondent from Sulawesi Barat shared:

"We were required to create unique products and market them at school exhibitions. This experience taught us responsibility, as we were given initial capital that we had to manage and return within a specified timeframe."

Similarly, creativity and resilience were emphasized in regions like Sorong, where students were encouraged to sell products daily in the school canteen, fostering continuous innovation.

Participants recognized that entrepreneurial education not only benefits aspiring entrepreneurs but also equips students with transferable skills valuable across various career paths, such as leadership, communication, and strategic planning.

Theme 2: Enhancing the Quality of Entrepreneurship Education

Participants consistently suggested that entrepreneurship education could be significantly improved through increased practical exposure beyond school premises. Activities such as participating in business exhibitions and engaging with external businesses were deemed essential for providing authentic learning experiences. A respondent from Medan highlighted this point:

"Schools should endorse additional entrepreneurship activities beyond the classroom, such as permitting students to promote and sell their products at events outside of the school."

The integration of accountability into learning activities was also noted as an effective approach. For example, students in Sulawesi Barat were required to manage initial capital, generate profits, and return the funds, fostering financial responsibility and resource management skills.

Respondents from regions like Manokwari emphasized the importance of hands-on learning. One participant noted:

"Practical sessions are more effective than theoretical ones. For example, when we were asked to make traditional crafts like noken, I learned much faster through hands-on practice."

Disparities in access to opportunities between urban and rural areas were evident. Students in remote areas expressed a desire for exposure to diverse entrepreneurial activities available in urban centers. A participant from West Java remarked:

"In larger cities, students engage in more diverse entrepreneurial activities, like selling products directly to customers in markets. I hope my school can offer such opportunities someday."

Participants also emphasized the value of blending online and offline learning methods to maximize comprehension and engagement. A respondent from Merauke noted:

"Offline learning provides direct interaction with mentors and peers, making concepts easier to understand. Combining online and offline methods can create a more comprehensive learning experience."

Finally, the broader societal impact of entrepreneurship education was recognized. A participant from Sorong stated:

"Entrepreneurship education can develop skills, abilities, and knowledge bases that not only benefit individuals but also contribute to society."

The analysis underscores the significance of both foundational and practical approaches to entrepreneurship education. High schools should emphasize developing entrepreneurial mindsets and skills while providing opportunities for real-world applications. Furthermore, addressing disparities in access to practical entrepreneurial activities between urban and rural areas is crucial. By integrating these elements, entrepreneurship education can become more effective in shaping future generations of innovative and resilient individuals.

Discussion

Assessing Entrepreneurship Education in High Schools in Indonesia

Entrepreneurial education at high schools in Indonesia not only nurtures future entrepreneurs but also equips students with transferable skills such as leadership, communication, and strategic planning. However, significant geographic disparities persist, with urban centers like Java providing greater access to entrepreneurial activities, while underserved regions such as Papua face resource constraints and limited opportunities. These findings align with Hyejin (Jung et al., 2018), who highlighted how income inequality hinders entrepreneurial activity in rural areas, and Huang and Saad (Huang-Saad & Celis, 2017), who pointed to demographic disparities in program access in U.S. higher education. Similar challenges have been observed in Mozambique, where resource limitations and a lack of qualified teachers hinder entrepreneurship education (LIBOMBO & DINIS, 2015).

This study extends these insights by emphasizing the need to address geographic inequities in Indonesia, tailoring programs to nurture high-potential students while ensuring foundational skills are widely accessible, akin to Uganda's approach to supporting diverse entrepreneurial groups (SSERWANGA & ROOKS, 2013). By expanding experiential learning opportunities and ensuring equitable resource allocation, Indonesia can foster entrepreneurial mindsets, as seen in South Africa (Chilenga et al., 2022) and Morocco (Benchrifia et al., 2017), thereby driving socio-economic development and preparing students for both entrepreneurial ventures and broader workforce challenges.

Enhancing the quality of entrepreneurship education in High School in Indonesia

The findings highlight that students consistently advocated for the enhancement of entrepreneurship education through increased practical exposure beyond the confines of school premises. They emphasized that activities such as participating in business exhibitions and engaging with external businesses provide authentic learning experiences that are invaluable for developing entrepreneurial acumen. This suggestion critically reflects a perceived gap between theoretical knowledge and real-world application, as students recognized the limitations of classroom-based learning in fostering essential entrepreneurial skills like opportunity recognition, resource management, and customer engagement (Kujala et al., 2022; Shekhar & Huang-Saad, 2021; Tambunan et al., 2024).

Aligning with broader efforts in developing countries, Mozambican higher education institutions face barriers such as limited resources, qualified teachers, and insufficient collaboration with businesses, which inhibit the practical application of entrepreneurship education (LIBOMBO & DINIS, 2015). Similarly, in Nigeria, integrating innovative practices like student-entrepreneur interactions into curricula has been recommended to address such gaps (Ejiogu & Nwajiuba, 2012). Another study in Indonesia found that students' value co-creation significantly affects the quality of entrepreneurship education and students' entrepreneurial intentions (Aziz et al., 2025; Walidayni et al., 2023). However, disparities in access to these opportunities, particularly between urban and rural schools, highlight a systemic challenge that limits equitable entrepreneurial development (Putro et al., 2022; Tabares et al., 2022). Ultimately, integrating practical activities into formal curricula and fostering partnerships with local businesses could not only enrich students' learning but also create a pipeline of innovative talent that contributes to broader economic development and job creation in Indonesia.

CONCLUSIONS

This study provides critical insights into the uneven implementation of entrepreneurship education in Indonesian high schools, highlighting the regional disparities that hinder equitable access to quality learning experiences. By analyzing the perspectives of university students who experienced entrepreneurship education during high school, this research underscores the importance of bridging the gap between urban and rural areas. Urban schools, particularly in Java, offer more diverse and practical entrepreneurial opportunities, whereas underdeveloped regions like Papua and Sulawesi face significant constraints in resources and infrastructure.

The findings contribute to the field by reinforcing the need for experiential and inclusive approaches to entrepreneurship education. Integrating practical activities, such as exhibitions, product creation, and business simulations, into formal curricula is shown to enhance the development of entrepreneurial mindsets. Additionally, the recommendation to blend online and offline learning methods provides a scalable solution for increasing accessibility in remote areas. These insights align with global trends in entrepreneurship education, emphasizing the value of hands-on, contextually relevant, and inclusive learning experiences.

This study's implications extend beyond Indonesia, offering a framework for addressing regional disparities in other developing nations with similar challenges. Policymakers and educators can leverage these findings to create more equitable and effective entrepreneurship education systems. By doing so, they will not only empower individual learners but also contribute to broader socio-economic growth and innovation.

While limited by a small sample size, this research emphasizes the transformative potential of entrepreneurship education when tailored to address regional inequities and practical needs. It contributes to the global discourse on entrepreneurship education, advancing both theoretical understanding and practical application. Future research could build on these findings by exploring longitudinal impacts and expanding the participant pool to include more diverse perspectives, ensuring a more comprehensive understanding of how entrepreneurship education can drive inclusive development.

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