IMPLEMENTATION OF THE ENTREPRENEURSHIP CURRICULUM WITH THE DEMING CYCLE AT ISLAMIC SENIOR HIGH SCHOOL

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Abstract	This study aims to describe and analyze the implementation of an entrepreneurship curriculum based on the PDCA (*Plan-Do-Check-Act*) cycle at SMA Islam Sunan Gunung Jati Tulungagung. Employing a descriptive qualitative approach with a case study method, data were collected through in-depth interviews with the principal, vice principal for curriculum affairs, entrepreneurship teachers, program coordinators, and students from Grades XI and XII. Additional data were obtained through observation of entrepreneurship learning activities—including classroom teaching, student business projects, and school entrepreneurship events—and document analysis of lesson plans, modules, rubrics, and student business products. The analysis followed Miles and Huberman's interactive model involving data reduction, data display, and conclusion drawing. The findings show that the curriculum was planned collaboratively and rooted in local potentials. Implementation emphasized experiential, project-based learning integrated with Islamic values and 21st-century skills such as collaboration, creativity, and digital literacy. Evaluation was conducted formatively and reflectively, assessing not only cognitive understanding but also affective aspects like responsibility and honesty. Follow-up activities included mentoring, advanced training, and integration of digital tools to support continuous improvement. The novelty of this study lies in the integration of the PDCA cycle into an entrepreneurship curriculum that aligns with Islamic and multicultural values, making it relevant to the sociocultural realities of students. This research contributes conceptually to the development of contextual, adaptive, and character-based curricula in Islamic education, providing a reference for similar initiatives in other institutions. It demonstrates that entrepreneurship education can serve as a strategic medium for character formation and socio-economic empowerment.
Keywords	Curriculum, entrepreneurship, Islamic values, multiculturalism, PDCA.

INTRODUCTION

In recent years, entrepreneurship education has gained increasing importance as a key component in preparing students for the demands of the 21st century. While the PDCA (Plan-Do-Check-Act) cycle is widely acknowledged as an effective framework for continuous improvement in educational and organizational contexts, its application within Islamic senior high schools remains underexplored. Many existing entrepreneurship programs focus primarily on theoretical and cognitive aspects, often neglecting the integration of practical experience, spiritual values, and multicultural perspectives. Furthermore, the use of quality management principles like the PDCA cycle in Islamic education has not been thoroughly examined in relation to character education, local potential-based learning, and the development of 21st-century competencies. This study aims to fill that gap by investigating the implementation of the entrepreneurship curriculum through the PDCA cycle in an Islamic senior high school setting.

Studies have shown that entrepreneurship programs combining experiential learning with continuous improvement strategies lead to significant enhancements in students' entrepreneurial skills and intentions (Asykin et al., 2019; Tan et al., 2024). For example, programs that integrate real-world business challenges and reflective practices have successfully improved students' entrepreneurial competencies (Tan et al., 2024). The current entrepreneurship education model often lacks the practical components necessary to develop skills in the real world. By incorporating the Deming Cycle, educators can bridge this gap, ensuring that students not only learn theoretical concepts but also apply them in practical situations (Sukerti et al., 2019; Tan et al., 2024). This holistic approach prepares students to face the complexities of the entrepreneurial world (Sukerti et al., 2019; Tan et al., 2024). Educators must focus on creating a dynamic and interactive learning environment that encourages experimentation and continuous improvement. This can be achieved by incorporating project-based learning, business simulations, and regular feedback sessions into the curriculum. Additionally, building a supportive ecosystem that includes mentoring and industry partnerships can further enhance the learning experience (Asykin et al., 2019; Tan et al., 2024).

The implementation of the Deming Cycle (PDCA) in the entrepreneurship curriculum at SMA Islam Sunan Gunung Jati Tulungagung shows strong effectiveness starting from the planning phase (Plan). This phase involved collaborative efforts by school leaders, teachers, coordinators, and senior students, focusing on local potentials such as bamboo crafts and traditional foods. Through SWOT analysis and partnerships with local MSMEs, planning was contextualized within the

school's Islamic character vision, enabling students to create business ideas relevant to their social environment, which enhanced motivation and engagement.

During the implementation phase (Do), students engaged directly in experiential learning via the "Entrepreneurship Fridays" program. They managed production, marketing, and sales with school support, producing diverse products from snacks to digital designs. The integration of social media marketing demonstrated adaptation to digital technologies and the development of 21st-century skills. Importantly, this phase also embedded Islamic spiritual values—honesty, responsibility, and cross-cultural cooperation—successfully merging religious and multicultural principles with entrepreneurial practice.

The evaluation (Check) and follow-up (Act) stages reinforced PDCA's effectiveness by combining formative assessments with reflective forums, emphasizing character development and business performance. Assessment criteria included innovation, collaboration, and feasibility, while follow-up actions involved digital marketing training, curriculum updates, and alumni mentoring. This cycle fostered continuous improvement, enhancing students' entrepreneurial competencies alongside character, adaptability, and societal contribution.

Despite these successes, challenges emerged. Educators faced heavy workloads and limited digital literacy, complicating consistent PDCA implementation, especially in evaluation and follow-up stages. Students displayed varied motivation and skills; balancing entrepreneurship projects with academics was difficult, and some lacked digital design or communication skills. Financial constraints among lower-income students also posed psychological barriers, even with school support.

Group dynamics and genuine internalization of Islamic ethics presented additional challenges. Effective teamwork was sometimes hindered by conflicts and poor communication. Teachers needed to ensure values like honesty and amanah were truly practiced, not just stated. Some students prioritized financial gain over moral and social responsibilities, highlighting the ongoing need to strengthen value-based character development alongside competitive entrepreneurship.

Overall, the PDCA-based entrepreneurship curriculum at SMA Islam Sunan Gunung Jati significantly improved students' cognitive, affective, and psychomotor entrepreneurial skills. Planning activities fostered critical thinking and business planning grounded in the local context. Implementation through real business operations enhanced technical and interpersonal skills,

building confidence and entrepreneurial resilience. Evaluation and follow-up stages promoted reflective learning and continuous skill enhancement, supported by advanced training and mentoring, creating a sustainable learning ecosystem.

The school was deliberately chosen for its pioneering integration of Islamic values with innovative entrepreneurship education, making it an ideal case study. Its consistent use of PDCA in both program management and student learning offers a valuable example of quality management in Islamic education, a relatively underexplored area academically. The diverse student population added a rich dimension to understanding how Islamic and multicultural values shape entrepreneurial practices, while the school's cooperation facilitated comprehensive qualitative research through observations, interviews, and documentation. Some previous studies include research that investigates the entrepreneurial education needs of art and design students in Chinese vocational colleges using the Entrepreneurial Thought and Action (ET&A) framework (Zeng et al., 2023). It identifies key knowledge and skills required for entrepreneurship, such as entrepreneurial courses, professional knowledge, and practical experiences like competitions and simulations. The findings emphasize the importance of improving entrepreneurship education systems, focusing on practical teaching, and fostering collaboration between schools, families, and enterprises to enhance students' innovation and entrepreneurial abilities. Then, research on the effectiveness of entrepreneurship education in encouraging entrepreneurial intentions among university students, specifically in the context of art and design disciplines (Prabandari, 2022). The research explores the knowledge and skills students believe are necessary to start a business and identifies the challenges they face in entrepreneurship. The findings show that a combination of entrepreneurial knowledge, practical experience, and a supportive school environment significantly increases students' willingness to engage in entrepreneurial activities. The study suggests improvements in entrepreneurship education, emphasizing the need for practical training, school-enterprise cooperation, and a curriculum that integrates entrepreneurial risk and partner selection to better prepare students for entrepreneurship. Then, research on the determinants of the success of entrepreneurship education in engineering study programs (Bilau & Santos, 2023). This research identified key elements such as practical learning, collaboration with industry, and curriculum design that significantly influence the effectiveness of entrepreneurship education. The findings highlight the importance of integrating hands-on experience, encouraging innovation, and aligning educational content with industry needs to improve entrepreneurial skills and student success rates.

Next up was a study that examined the incomplete implementation of the PDCA (Plan-Do-Check-Act) cycle in research, development, and innovation (RDI) activities at the University of Applied Sciences (UAS) Finland (Linko et al., 2021). The research highlights gaps in the quality management system, particularly in the "Check" and "Act" phases, which hinder continuous improvement in the RDI process. The findings suggest that addressing these gaps by improving feedback mechanisms and integrating systematic evaluation practices can significantly improve the effectiveness and sustainability of RDI activities.

The latter study focused on applying the PDCA (Plan-Do-Check-Act) quality management model to undergraduate innovation and entrepreneurship training programs, aiming to increase the effectiveness of such programs by systematically improving design, implementation, evaluation, and continuous development (Yang & Xu, 2021). The findings highlight that integrating the PDCA model helps address gaps in entrepreneurship education, promotes practical learning, and enhances students' entrepreneurial skills and innovation capabilities. This approach provides a replicable framework for improving entrepreneurship education in higher education institutions.

The research titled "Implementation of The Entrepreneurship Curriculum with The Deming Cycle at Islamic Senior High School" addresses a gap by integrating the Deming cycle (PDCA) into a value-based entrepreneurship curriculum specifically in Islamic high schools, which has not been explored in previous studies. Unlike earlier research that focuses on higher education or vocational contexts, this study emphasizes the unique challenges and needs of Islamic education in Indonesia. The novelty lies in its application of the PDCA model to enhance curriculum design and implementation, aiming to improve students' entrepreneurial skills while instilling Islamic values. This approach provides a practical framework for developing entrepreneurship education tailored to the specific cultural and educational context of Islamic schools, contributing to the broader discourse on entrepreneurship education.

On a broader scale, this research is important for enriching the body of knowledge in Islamic education and the development of contextual and transformative curricula. Entrepreneurship education that is not only market-based but also value-based (*value-based entrepreneurship education*) can serve as a solution to the challenges of youth unemployment, moral decline, and the lack of economic literacy among students (Hatt et al., 2024). With a scientific and contextual approach, the findings of this study are expected to serve as a replicable model for other Islamic schools that wish to develop a curriculum that excels academically and remains socially relevant.

Theoretically, this research contributes to the development of knowledge in the field of Islamic education, particularly in designing value-based entrepreneurship education curricula. By integrating scientific and contextual approaches, this research enriches theories on entrepreneurship education that are not only market-oriented but also focused on character development, moral values, and social awareness. This provides a conceptual foundation for developing curricula that are adaptive to modern challenges, such as youth unemployment, moral decline, and low economic literacy. Pragmatically, this research offers a curriculum model that can be replicated by other Islamic schools to create educational programs that excel academically while also being socially relevant. With a Deming cycle (PDCA)-based approach, this research provides practical guidelines for designing, implementing, evaluating, and continuously improving entrepreneurship curricula. Furthermore, the findings of this research are expected to serve as a tangible solution to social issues, such as youth unemployment, by equipping students with value-based entrepreneurial skills that are relevant to community needs.

METHOD

This study employed a qualitative approach with a case study design to explore the implementation of an entrepreneurship curriculum based on the Deming Cycle (*Plan-Do-Check-Act*) at SMA Islam Sunan Gunung Jati Tulungagung. The research aimed to gain an in-depth understanding of the strategies involved in planning, implementing, evaluating, and following up on the entrepreneurship curriculum within the educational environment. Data were collected from various sources, including the school principal, the vice principal of curriculum affairs, entrepreneurship subject teachers, program coordinators, and students from grades XI and XII participating in the program. Techniques for data collection included in-depth interviews, participant observations of teaching activities, and document analysis of curriculum documents, syllabi, and lesson plans. The analysis utilized Miles and Huberman's interactive model, which involved data reduction, data display, and conclusion drawing. The study critically analyzed the implementation of the entrepreneurship curriculum in relation to relevant management theories and compared the findings with existing research to provide a comprehensive understanding of the subject.

FINDINGS AND DISCUSSION

Findings

The implementation of the entrepreneurship curriculum at SMA Islam Sunan Gunung Jati Tulungagung was carried out systematically through the *Plan-Do-Check-Act* (PDCA) approach. Each stage demonstrated the active involvement of various school stakeholders, including the principal, the vice principal for curriculum affairs, entrepreneurship teachers, program coordinators, and students from grades XI and XII participating in the entrepreneurship program.

Table 1. Implementation of Entrepreneurship Curriculum with Deming Cycle at Sunan Gunung Jati Islamic High School

No.	PDCA Stages	Relevant Concepts	Research Findings	Scientific Contribution
1.	Plan (Planning)	- Local potential-based curriculum (Depdiknas, 2006) - Participatory Planning (Deming, 1993)	Schools involve principals, deputy headmasters, teachers, students, and MSME partners in compiling modules based on local potential (food, crafts).	Integration of participatory planning concepts based on Islamic values (Islamic character vision) and local village potential.
2.	Do (Implementation)	- Experiential Learning (Kolb, 2005) - Kurikulum Merdeka Belajar (Kemendikbud, 2022)	Students carry out business practices through the "Entrepreneurship Friday" program directly, with products, marketing, and promotions via social media.	Digital-based business practices in an Islamic school environment – demonstrating the adaptation of 21st-century learning within a spiritual values framework.
3.	Check (Evaluation)	- Formative Evaluation (Stufflebeam, 2000 – Model CIPP) - Assessment of entrepreneurial character	Evaluation not only measures profits, but also character values (responsibility, creativity) with rubrics and student reflection forums.	Evaluation is used as a process of internalizing Islamic values and improving business strategies, not only for cognitive knowledge.
4.	Act (Follow-up)	- Continuous Improvement (Deming, 1993) - Learning Organization (Senge, 1994)	The school develops digital marketing training, design, alumni involvement as mentors, and revisions to entrepreneurship lesson plans.	Further targeted action with a digital approach and alumni collaboration, demonstrating an adaptive and progressive education system based on local and spiritual values.
5.	Islamic Values and Multiculturalism	- Islamic character education (Mansir, 2021)	Learning integrates honesty, responsibility, and cooperation across	Integration of entrepreneurship curriculum with Islamic

-	Multicultural education (Banks, 2013)	groups of students with different backgrounds.	and multicultural values contextually in real entrepreneurship practices.

In the *Plan* phase, the implementation of the entrepreneurship curriculum based on the Deming Cycle at SMA Islam Sunan Gunung Jati Tulungagung incorporates a curriculum that leverages local potential (Depdiknas, 2006) and participatory planning (Deming, 1993). The school actively involves the principal, vice principal, teachers, students, and local SMEs in developing modules that reflect local resources, such as food and handicrafts. This approach integrates participatory planning concepts with Islamic values (Islamic character vision) and the local village's potential, ensuring that the curriculum is not only relevant to the community but also aligned with the school's mission to instill Islamic values in students. This collaborative effort enhances the curriculum's effectiveness by grounding it in the local context and fostering a sense of ownership among stakeholders.

In the Do (*Implementation*) phase, the entrepreneurship curriculum at SMA Islam Sunan Gunung Jati Tulungagung integrates Experiential Learning (Kolb & Kolb, 2005) and the Merdeka Belajar Curriculum (Kemendikbudristek BSKAP, 2022). Students actively engage in business practices through the "Jumat Kewirausahaan" program, where they directly manage product creation, marketing, and promotion via social media platforms. This hands-on approach reflects the principles of experiential learning, allowing students to gain practical entrepreneurial skills. Furthermore, the integration of digital-based business practices within an Islamic school environment demonstrates an adaptation to 21st-century learning while maintaining a framework rooted in spiritual values. This approach not only equips students with modern entrepreneurial competencies but also aligns with the school's mission to instill Islamic character and values in its educational practices.

In the Check (*Evaluation*) phase, the implementation of the entrepreneurship curriculum at SMA Islam Sunan Gunung Jati Tulungagung incorporates Formative Evaluation (Stufflebeam, 2000) and entrepreneurial character assessment. The evaluation process does not solely focus on measuring financial profits but also emphasizes assessing entrepreneurial character values such as responsibility and creativity. This is achieved through the use of rubrics and student reflection forums. The evaluation serves as a means of internalizing Islamic values and improving business strategies, rather than merely assessing cognitive knowledge. This approach ensures that the

evaluation process aligns with the school's mission to integrate spiritual values into entrepreneurial education while fostering continuous improvement in students' entrepreneurial practices.

In the Act (*Follow-Up*) phase, the implementation of the entrepreneurship curriculum at SMA Islam Sunan Gunung Jati Tulungagung emphasizes Continuous Improvement (Deming, 1993) and the concept of a Learning Organization (Senge, 1994). The school has taken proactive steps to enhance the program by developing training in digital marketing and design, involving alumni as mentors, and revising the entrepreneurship lesson plans (RPP). These follow-up actions demonstrate a directed approach that integrates digital advancements and alumni collaboration, reflecting an adaptive and progressive education system. This system is rooted in local and spiritual values, ensuring that the entrepreneurship curriculum remains relevant to the evolving needs of the 21st century while maintaining its Islamic educational framework.

The integration of Islamic values and multiculturalism in the entrepreneurship curriculum at SMA Islam Sunan Gunung Jati Tulungagung is grounded in Islamic character education (Mansir et al., 2021) and multicultural education (Banks, 2013). The learning process incorporates values such as honesty, responsibility, and cooperation among students from diverse backgrounds. This approach fosters cross-group collaboration and mutual respect, reflecting the principles of multiculturalism. The entrepreneurship curriculum is contextually designed to combine Islamic values with multicultural principles, ensuring that students not only develop entrepreneurial skills but also internalize spiritual and social values. This integration is applied in real entrepreneurial practices, creating a holistic educational experience that aligns with the school's mission to nurture students with strong moral and ethical foundations.

1. Planning Stage (*Plan*)

In the planning stage, the school team conducted a needs analysis, developed entrepreneurship modules, mapped local potentials, and established partnerships with external collaborators. The principal emphasized that the planning aimed to cultivate Islamic entrepreneurial character in alignment with the school's vision. Local potentials such as bamboo crafts and traditional foods were identified as key areas for student business projects, ensuring that learning remains relevant and applicable.

The vice principal highlighted the importance of contextualizing the curriculum by incorporating local small and medium enterprises (SMEs) as learning partners. This collaborative approach strengthens the connection between students and their community while instilling social

awareness through real-world entrepreneurial practices. The entrepreneurship teacher utilized SWOT analysis to develop modules based on students' strengths and market trends. Meanwhile, the program coordinator required each student group to submit a business proposal at the beginning of the semester to foster critical thinking and strategic planning.

Students in Grade XI actively participated in early brainstorming sessions, proposing business ideas such as healthy snacks made from cassava. Grade XII students drew insights from their seniors' past business experiences, creating a supportive learning environment and promoting peer-to-peer learning. These interactions enhanced students' creativity and collaborative spirit in developing their business ventures.

Observations confirmed the curriculum team's active engagement through routine meetings and formal cooperation agreements with local SMEs, including spice vendors and batik artisans. These collaborations integrated real-world business experiences into the curriculum, ensuring that students gained practical skills and insights while aligning educational outcomes with industry demands.

2. Implementation Stage (*Do*)

The implementation phase of the program was marked by a weekly initiative called "*Entrepreneurship Fridays*," where students actively engaged in the production and marketing of their business products. The principal emphasized the importance of this experiential learning, as students were given the opportunity to manage real business operations under the supervision of teachers and program coordinators. This hands-on experience instilled responsibility and essential entrepreneurial skills in a supportive environment.

To support the program, the school allocated a special Friday schedule and provided resources such as tents, tables, and production tools. According to the vice principal, these facilities enabled students to fully focus on developing their ventures, fostering both creativity and practicality in executing their business plans.

Entrepreneurship teachers actively supervised students during production, while program coordinators enhanced visibility through online promotions on school social media platforms. This strategy bridged theory and practice, allowing students to not only learn about entrepreneurship but also apply digital marketing strategies. Students developed promotional content and learned to manage online engagement, gaining vital skills for modern entrepreneurship.

Grade XI students created local snack products like spicy taro sticks, learning basic production techniques and pricing strategies. Grade XII students had progressed to building and marketing their own brands, such as "*Sahabat Rasa*," which gained popularity within the school. Observations confirmed professional management of student booths, including the use of QR codes for digital payments. This practical model prepared students for real entrepreneurial challenges while encouraging innovation and adaptability.

3. Evaluation Stage (*Check*)

During the evaluation stage, teachers and students conducted regular assessments and reflections to gauge the program's success. These evaluations extended beyond financial results to include character development, emphasizing values such as honesty and cooperation. The principal stressed that the main objective was to foster moral growth alongside business skills, encouraging students to reflect on their experiences, recognize strengths and weaknesses, and develop metacognitive abilities.

The vice principal implemented a structured evaluation system involving monthly reports and weekly reflections. Each student group submitted progress reports detailing achievements and challenges. In addition, small meetings were held to provide feedback, and students maintained weekly journals. This systematic process nurtured accountability and encouraged students to continuously assess and improve their performance.

Teachers used a detailed rubric to assess innovation, collaboration, marketing, and financial planning in each project. The entrepreneurship teacher noted that this assessment model promoted creative thinking and teamwork while offering clear criteria for evaluating both individual and group performance. This comprehensive approach helped students connect theoretical knowledge with practical application.

The program coordinator introduced open reflection forums, where students shared challenges and successful strategies in a collaborative setting. These forums encouraged critical thinking, honest dialogue, and peer learning, supporting students in refining their entrepreneurial strategies through mutual feedback and support.

Grade XII students reported that weekly reflections significantly improved their business planning. One student noted that these sessions helped identify needed adjustments for the following week. This reflective practice fostered adaptability and informed decision-making, equipping students with a growth mindset essential for future entrepreneurial success.

4. Follow-Up Stage (*Act*)

In the final stage, the school used evaluation results to improve the curriculum, focusing on module updates, digital skill enhancement, and alumni involvement. The principal explained that these insights led to the addition of digital marketing content to address modern business demands. To support this, the vice principal organized training on Canva marketing, including guidance on creating business accounts to provide students with hands-on branding experience.

Entrepreneurship teachers revised their lesson plans to align with current trends and student needs. One teacher added topics on packaging design and online endorsements. The program coordinator also engaged alumni entrepreneurs as weekly mentors, giving students access to real-world business perspectives and practical advice.

These changes positively impacted students. Grade XI students gained confidence from packaging design training, with one expressing pride in their new skills. Grade XII students embraced a one-minute promotional video challenge, enjoying the creative task and receiving significant engagement on social media. These activities boosted both technical proficiency and student motivation.

Discussion

The implementation of the entrepreneurship curriculum based on the PDCA cycle at SMA Islam Sunan Gunung Jati Tulungagung demonstrated strong alignment with the principles of participatory planning, active implementation, reflective evaluation, and continuous improvement as developed by Deming (1993) Beyond the technical mechanisms of entrepreneurship education, this practice also internalized Islamic spirituality and multicultural values throughout the process.

Field data revealed that the planning stage was carried out collaboratively, involving both internal and external stakeholders (Purbani, 2017; Waris et al., 2022). The principal, curriculum team, teachers, and students jointly developed the entrepreneurship module based on local potentials (Flores-Fahara et al., 2021; Handelzalts et al., 2019). This aligns with Competency-Based Curriculum theories (Depdiknas, 2006), which emphasize the importance of socio-cultural relevance in learning development (Ford, 2024; Hatcher et al., 2013). The planning process was supported by observations and documentation, including SWOT analysis maps, entrepreneurship modules, and lists of local SME partners.

The collaborative planning stage involving internal and external stakeholders is a strategic approach to developing a local-potential-based entrepreneurship module. It aligns with Competency-Based Curriculum principles and links education with socio-cultural contexts. By engaging students, teachers, curriculum teams, and local SMEs, the process helps students gain real-world insights and contextual entrepreneurial skills. The use of systematic tools like SWOT analysis supports data-driven planning and improves implementation effectiveness.

Despite its advantages, this approach presents challenges. Unequal contributions—especially from resource-limited local SMEs—can hinder collaboration. SWOT analysis may not capture the full complexity of student needs or market dynamics. Overemphasis on local context might also restrict innovative, globally relevant ideas. Therefore, flexibility and inclusivity are essential to maximize the approach's effectiveness. During the implementation phase, the *experiential learning* approach was clearly evident, as students were engaged not only theoretically but also practically in running real business units (Kolb & Kolb, 2005; Morris, 2020; Seaman et al., 2017). Through the "*Entrepreneurship Fridays*" program, students formed groups, designed products, calculated production costs, and conducted direct sales (Chaerudin & Hartati, 2018; Kurilova et al., 2019).

From an Islamic education perspective, this process reflects tazkiyatun nafs (soul purification) through real work and responsibility (Alkouatli, 2018; Syahrizal, 2021). The diversity among students, reflected in various business models, also demonstrated a multicultural approach to entrepreneurship education (Chimbunde & Moreeng, 2024; Lareau & Horvat, 1999; Suyo-Vega et al., 2023).

The "Entrepreneurship Fridays" program employs an experiential learning approach that provides students with practical business skills through direct involvement. This method reinforces entrepreneurial knowledge while integrating the Islamic value of *tazkiyatun nafs*, fostering responsibility and ethical character. The variety of business models also enhances multicultural awareness and prepares students for global business contexts.

Despite its benefits, this approach faces challenges. Unequal participation among group members can affect individual learning. A limited focus on theory may hinder comprehensive understanding. Moreover, *tazkiyatun nafs* may not resonate with all students equally. Lastly, diverse business models can complicate assessment and standardization. These issues require careful oversight to maintain program effectiveness.

The evaluation phase was not merely about financial outcomes but emphasized critical reflection (Hatton & Smith, 1995; Lemos & Brunstein, 2023). The program coordinator emphasized the importance of open reflection sessions where students could share both successes and failures, aligning with the principles of formative and constructive evaluation advocated by Stufflebeam's CIPP model (Irene, 2023).

This evaluation has a direct impact on the development of their marketing strategies and strengthens the understanding of the importance of responding to feedback. (Ramaprasad, 1983). The observation results show that teachers use transparent assessment rubrics, while weekly reflections are recorded in students' journals. This evaluation not only improves the quality of the efforts but also fosters a culture of evaluative literacy among students.

The evaluation phase emphasizes critical reflection over financial results, promoting deeper learning and formative assessment. Open reflection sessions allow students to discuss both successes and failures, improving their marketing strategies and building evaluative literacy for ongoing entrepreneurial growth. However, this reflective approach may lead students to dwell too much on failures, potentially lowering motivation. Moreover, standardized rubrics and weekly reflections may not suit all learning styles, limiting engagement for some students. Therefore, a balanced approach that includes both reflection and practical outcomes is necessary to ensure equitable learning benefits.

The corrective actions and curriculum development activities following evaluation aligned with Deming's principle of *continuous improvement* (Montesinos González et al., 2020; Nguyen et al., 2020). The school enhanced digital marketing training, introduced Canva workshops, and even challenged students to create one-minute promotional videos (Sibley et al., 2024). The teacher revised the lesson plans to integrate digital skills, while alumni were involved as mentors, strengthening the students' entrepreneurial ecosystems. These activities not only strengthened technical competencies but also boosted students' motivation and confidence (Karabin et al., 2024; Rosales-Márquez et al., 2024).

The corrective actions and curriculum enhancements reflect a strong commitment to continuous improvement aligned with Deming's principles. Initiatives such as digital marketing training, Canva workshops, and one-minute promotional video tasks integrate modern skills into entrepreneurship education. The involvement of alumni as mentors enriches the learning experience by offering real-world perspectives, thereby strengthening students' technical abilities, confidence,

and motivation.

However, these efforts may also present limitations. Emphasis on digital and promotional skills could marginalize other critical areas like financial management. Inconsistencies may arise from depending on alumni mentors with varying levels of expertise. Furthermore, students less proficient in digital tools might feel pressured, leading to unequal learning outcomes. A more balanced and inclusive approach is essential to mitigate these issues.

The entrepreneurship curriculum at SMA Islam Sunan Gunung Jati Tulungagung aimed not only to develop technical entrepreneurial skills but also to internalize Islamic ethical values. Honesty, responsibility, trustworthiness (*amanah*), and diligence were embedded through practical activities rather than being delivered through rote instruction (Pike et al., 2021). For example, students are trained to present financial reports honestly and transparently in weekly evaluation forums, and are required to complete their business projects thoroughly as a form of individual and collective responsibility. This aligns with the principle of *amal saleh* in Islam, which emphasizes the importance of tangible actions that are socially beneficial (Fauzia, 2013; Thalgi, 2024).

On the other hand, the plural social context of the school—both in terms of economic backgrounds, learning styles, and students' personal aspirations—requires the presence of a multicultural approach in learning (Au, 2013; Sleeter, 2018). The entrepreneurship projects are carried out collaboratively across classes and groups, fostering attitudes of mutual respect, tolerance, and empathy (Gillies, 2023). Teachers consciously design learning that is adaptive to this diversity, including in the selection of business products that reflect the richness of local culture and students' interests (Bekaulova et al., 2024). For example, student groups from rural backgrounds produce traditional crafts from their region, while other groups develop digital products based on urban youth trends. This process demonstrates how entrepreneurship serves as a platform for cross-cultural learning that is both contextual and meaningful (Feola et al., 2024; Pettersen et al., 2023).

Furthermore, the integration of Islamic values and multiculturalism shows that entrepreneurship education can serve as a strategic medium for shaping individuals who excel spiritually, socially, and intellectually (Virk & Gambhir, 2024; Wolf et al., 2024). The learning process not only produces an output in the form of business products but also fosters an awareness of the importance of cooperation, justice, and positive contributions to a diverse society (Brown et al., 1989; Mayo, 2021). This strengthens the position of Islamic schools as institutions that not only provide religious education but also equip students with inclusive life skills that are relevant to the real world

The entrepreneurship curriculum at SMA Islam Sunan Gunung Jati Tulungagung successfully integrates technical skills with Islamic ethical values such as honesty, responsibility, and diligence through practical activities. This approach reflects the principle of *amal saleh* and equips students with both spiritual and practical skills to make positive contributions to society. The multicultural and collaborative learning environment further enhances students' understanding of diversity, promoting tolerance and empathy.

However, the curriculum faces challenges in balancing Islamic values with students' diverse cultural backgrounds and aspirations. The strong emphasis on practical activities may reduce students' theoretical understanding of entrepreneurship. Moreover, collaborative projects could disadvantage students with lower confidence or skill levels. Therefore, it is essential to maintain a balance between practical and theoretical learning while providing tailored support to accommodate individual student needs.

CONCLUSION

The implementation of an entrepreneurship curriculum based on the PDCA cycle at SMA Islam Sunan Gunung Jati Tulungagung demonstrates the effective application of systematic managerial approaches within Islamic and multicultural educational settings. Each stage of the PDCA cycle integrates technical business development with spiritual values and ethical entrepreneurship, along with contextual experiential learning. This study's novelty lies in combining the PDCA cycle with Islamic values and cross-cultural learning at the high school level, incorporating reflective evaluation for character development. The findings emphasize that entrepreneurship education should enhance economic competencies while also fostering character building and social awareness. Overall, this study contributes to developing adaptive curricula that address modern challenges while honoring cultural roots and Islamic principles.

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