



Entrepreneurship Training on Beverage Innovation for Students of Al-Azhar Private Senior High School Batam, Product Creation and Selling Price Calculation

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Abstract

This community service program was designed to develop entrepreneurial skills and financial literacy among high school students through practical training on beverage product creation and selling price calculation. The activity was conducted at Al-Azhar Private Senior High School Batam, by lecturers and students of Batam Tourism Polytechnic. The training introduced participants to basic entrepreneurship concepts, production processes of contemporary beverages, cost management, and pricing strategies. Using a combination of lectures, demonstrations, and hands-on practice, students were guided to produce beverage products and calculate their unit costs and profit margins. The results revealed a significant improvement in students' understanding of cost calculation, creativity in product development, and motivation toward entrepreneurship. The training not only enhanced practical skills but also inspired students to consider business opportunities in the food and beverage sector. This program serves as a sustainable model for vocational and entrepreneurial education in secondary schools

Keywords: entrepreneurship, training, beverage innovation, pricing, community service, high school students

INTRODUCTION

Entrepreneurship education is one of the key components in developing young generations who are independent, creative, and ready to face global competition. In the current era of rapid technological advancement and creative economy growth, the food and beverage sector has become one of the most dynamic industries, offering vast opportunities for small and medium-sized enterprises (SMEs)(Gunawan et al., 2024). However, many high school students have not yet received adequate exposure to entrepreneurial concepts, particularly those related to cost management, innovation, and business planning. As a result, students often lack the confidence and practical understanding needed to start and sustain a small business.

Batam City, known as one of Indonesia's most rapidly developing industrial and tourism areas, provides a strategic environment for fostering youth





entrepreneurship. The presence of various cafes, beverage outlets, and culinary startups indicates that there is a strong market demand for innovative beverage products. Nevertheless, to participate in this growing industry, young people need not only creativity but also basic financial literacy and business skills—especially the ability to calculate production costs and determine appropriate selling prices.

In this context, Batam Tourism Polytechnic, through its Department of Culinary and Food Service Management, initiated a community service program titled *“Entrepreneurship Training on Beverage Innovation for Students of Al-Azhar Private Senior High School Batam: Product Creation and Selling Price Calculation.”* This program serves as an implementation of the *Tri Dharma of Higher Education*, particularly the community service aspect, which encourages academic institutions to apply their expertise for the benefit of society. The training aims to bridge the gap between theoretical learning in schools and the practical requirements of the food and beverage industry(Thamdzir et al., 2025).

The main focus of this training is twofold: (1) to develop students' practical skills in beverage production and (2) to strengthen their understanding of cost analysis and pricing strategy. Through this approach, the program not only provides technical skills such as ingredient selection, preparation techniques, and product presentation, but also introduces fundamental business principles like cost structure, profit margin, and price competitiveness. These competencies are essential for students who aspire to become entrepreneurs or skilled workers in the hospitality and culinary sectors.

Moreover, this program aligns with the increasing emphasis on vocational-oriented learning in Indonesia's education system, which encourages experiential learning and real-world application. By engaging students in hands-on beverage-making activities, they can directly experience the process of transforming ideas into marketable products. The training also introduces them to entrepreneurial thinking—how to identify opportunities, manage resources efficiently, and make decisions based on cost and value considerations(Pratama et al., 2025).

The collaboration between Batam Tourism Polytechnic and Al-Azhar Private Senior High School demonstrates a strong commitment to building educational partnerships that contribute to community empowerment. Through this initiative, the Polytechnic's lecturers and students act as facilitators who share their





professional knowledge and practical experience, while the high school students serve as active learners who gain both technical and entrepreneurial competencies.

In the long term, this program is expected to encourage students to develop their own micro-entrepreneurial projects and cultivate a mindset of self-reliance. Beyond enhancing individual capabilities, the initiative also aims to support the local economic ecosystem by nurturing a generation of young entrepreneurs capable of contributing to Batam's growing culinary industry. The experience gained from this activity serves as a valuable foundation for further entrepreneurship education programs and strengthens the role of higher education institutions as catalysts of community development and innovation.

COMMUNITY OVERVIEW

Al-Azhar Private Senior High School Batam is one of the prominent educational institutions located in Batam City, Riau Islands Province, Indonesia. The school is known for its strong emphasis on character education, academic achievement, and extracurricular development. It accommodates students from diverse social and economic backgrounds, many of whom come from families engaged in small businesses or service industries. The school's vision aligns with the development of students who are not only academically competent but also capable of adapting to the demands of the modern workforce through creativity, innovation, and entrepreneurship.

The institution's strategic location in Batam City, a rapidly developing industrial and tourism hub, presents both opportunities and challenges for its students. Batam's economy is characterized by its dynamic business environment, especially in the hospitality, tourism, and culinary sectors. Cafés, beverage outlets, and small culinary ventures are thriving across the city, offering potential employment and business opportunities for young people. However, most students at the senior high school level have limited access to structured entrepreneurship training, especially those related to cost management, pricing strategy, and product development.

During initial discussions with the school's management and teachers, it was observed that the students exhibited a strong interest in entrepreneurship,





particularly in the food and beverage field. Nevertheless, they lacked practical exposure to the operational aspects of running a business, such as how to calculate production costs, set a selling price, and estimate profit margins. Teachers expressed enthusiasm for the idea of integrating entrepreneurship activities into the school's learning process, viewing it as an effective way to complement formal education with hands-on business experiences (Sipayung et al., 2025).

The community's readiness and enthusiasm became key supporting factors in the success of this community service program. The participants, consisting of students from grades X and XI, demonstrated high motivation to learn and experiment with beverage product creation. They were eager to explore popular beverage trends such as iced coffee, milk-based drinks, and fruit blends—products that resonate with current youth preferences and market demand. Moreover, the students' willingness to engage in teamwork during the practical sessions reflected strong collaboration and adaptability, important traits in entrepreneurial learning.

The teachers and school management also played an essential role as facilitators, ensuring that the training sessions ran smoothly and that the lessons could be integrated into future school-based entrepreneurship activities. This collaboration created a learning ecosystem that connected academic knowledge from Batam Tourism Polytechnic with practical applications in the high school environment.

Overall, the Al-Azhar Private Senior High School community demonstrated high potential for developing school-based entrepreneurship programs. By providing direct mentoring and practical learning opportunities, this PKM activity helped strengthen the entrepreneurial spirit among students while building sustainable links between higher education and secondary education. The partnership between Batam Tourism Polytechnic and Al-Azhar Private Senior High School represents a strategic model for community empowerment—one that equips young generations with both the mindset and the skills necessary to pursue future careers or establish small-scale businesses in the culinary and beverage industries.





Source: Team Community Service 2025

METHODOLOGY

The *Entrepreneurship Training on Beverage Innovation* was designed using a participatory and experiential learning approach to ensure that students not only received theoretical knowledge but also gained hands-on experience in developing beverage products and calculating selling prices. The methodology emphasized three key principles: active participation, practical application, and reflective learning.

3.1. Target Participants

The main participants in this community service activity were students from Al-Azhar Private Senior High School Batam, particularly from grades X and XI, who showed interest in entrepreneurship, business management, and culinary arts. A total of 30 students were selected based on recommendations from teachers and their willingness to engage in interactive learning sessions. The inclusion of both male and female students ensured gender balance and encouraged equal participation in creative and business-related activities.

3.2. Training Design and Implementation Stages

The implementation of the program was divided into several stages: preparation, implementation, and evaluation.

1. Preparation Stage

During this stage, coordination meetings were conducted between the community service team from Batam Tourism Polytechnic and Al-Azhar





Private Senior High School's management. The purpose was to align objectives, determine participant criteria, and prepare training materials. The materials were developed to cover two major themes: beverage production techniques and cost calculation for selling price determination. Equipment and ingredients for beverage production were also prepared, ensuring students could directly practice during the training.

2. Implementation Stage

The main training activities were carried out over two days at the school. The first session introduced students to entrepreneurship concepts, focusing on mindset building, creativity, and opportunity identification in the beverage business. The second session involved demonstrations and practical exercises on how to prepare popular beverage products such as iced coffee, chocolate-based drinks, and fruit mixes. Each group of students was guided to produce their own beverage creations by selecting ingredients, preparing mixtures, and presenting final products.

The next stage focused on cost analysis and selling price determination. Students were taught how to calculate production costs, including raw materials, utilities, labor, and packaging, using simple business calculation methods. They were then guided to determine appropriate selling prices by applying profit margin formulas and considering market competition.

3. Evaluation and Reflection Stage

After completing the practical and calculation sessions, students were asked to present their beverage products and explain their pricing strategies. The facilitators evaluated each group based on creativity, taste, cost efficiency, and marketing feasibility. Discussions and reflections followed, allowing participants to share their experiences, challenges, and key learning outcomes.

3.3. Learning Approach

The training utilized a combination of lecture, demonstration, discussion, and practice methods. Lectures were used to deliver theoretical concepts, demonstrations illustrated technical procedures, discussions encouraged critical thinking, and practice sessions enabled direct skill application. The integration of





these methods ensured that students developed cognitive understanding, psychomotor skills, and affective attitudes simultaneously.

3.4. Evaluation Indicators

The effectiveness of the training was evaluated through several indicators, including:

- Improvement in students' understanding of entrepreneurship and pricing concepts.
- Ability to prepare and present beverage products creatively.
- Accuracy in calculating production costs and determining selling prices.
- Increased motivation to explore entrepreneurship as a future career path.

Data collection was conducted through observation, participant feedback, and instructor assessment. The qualitative results indicated high engagement and enthusiasm from the students, demonstrating that the training successfully enhanced their knowledge and entrepreneurial readiness.



Source: Team Community Service 2025

SUSTAINABLE RESULT AND POTENTIAL

The implementation of the *Entrepreneurship Training on Beverage Innovation for Students of Al-Azhar Private Senior High School Batam* produced several meaningful and sustainable outcomes that extend beyond the duration of the program. The activity successfully enhanced students' entrepreneurial





awareness, creativity, and business literacy while strengthening collaboration between higher education and secondary education institutions. These achievements indicate strong potential for long-term development and replication in other schools.

4.1. Enhancement of Students' Skills and Competencies

The most immediate result of this training was the improvement of students' technical and managerial competencies. Participants demonstrated significant progress in understanding the production process of beverage products and the calculation of production costs. They became more confident in experimenting with ingredients, adjusting flavors, and presenting beverages in a marketable form. The training also improved students' communication, teamwork, and decision-making skills—attributes that are crucial in both academic and professional contexts.

The integration of cost analysis in the training process encouraged students to think critically about pricing strategies and profitability. They learned to differentiate between fixed and variable costs, calculate profit margins, and evaluate market feasibility. These analytical skills represent a vital foundation for sustainable entrepreneurship development among youth.

4.2. Development of Entrepreneurial Mindset and Creativity

Another important outcome was the emergence of entrepreneurial thinking among the students. The activity motivated them to view entrepreneurship not merely as a subject but as a viable career option. Through creative beverage formulation exercises, students learned to combine innovation with practicality by creating products that appeal to youth preferences while maintaining cost efficiency.

The exposure to real-world business simulations strengthened students' creativity and initiative. Many participants expressed an interest in continuing their product development after the program, either through school-based business projects or community bazaars. This enthusiasm suggests the sustainability of the entrepreneurial spirit fostered through this PKM program.

4.3. Institutional Collaboration and Knowledge Transfer

The collaboration between Batam Tourism Polytechnic and Al-Azhar Private Senior High School generated a strong foundation for future educational partnerships. Teachers from the high school participated actively in the sessions,





gaining new insights into practical entrepreneurship education. This involvement enables the school to continue integrating entrepreneurship themes into their curriculum, ensuring the sustainability of knowledge transfer(Mulyadi et al., 2025).

Additionally, the program serves as a model for how higher education institutions can apply the *Tri Dharma of Higher Education* by empowering communities through practical training and mentorship. The success of this activity has inspired discussions about expanding similar programs to other schools in Batam, focusing on culinary innovation, digital marketing, and small business management.

4.4. Long-Term Potential and Community Impact

The sustainable potential of this program lies in its ability to nurture young entrepreneurs who can contribute to the local economy. By equipping students with entrepreneurial knowledge and practical skills, the program supports the national agenda of building a creative economy based on local resources and innovation.

In the long run, this initiative could evolve into a student entrepreneurship incubator, where students develop and market their own beverage products with mentoring from lecturers and local entrepreneurs. Such an initiative would not only strengthen school-industry collaboration but also create new micro-entrepreneurial opportunities for the youth in Batam(Syafruddin Rais et al., 2025).

Overall, the outcomes of this program indicate that small-scale, practice-oriented entrepreneurship training can have a lasting impact on students' skills, attitudes, and career aspirations. The synergy between higher education and secondary education institutions ensures that the results are not temporary but continue to grow through ongoing mentorship, innovation, and community collaboration.

CONCLUSION

The *Entrepreneurship Training on Beverage Innovation for Students of Al-Azhar Private Senior High School Batam* successfully enhanced students' creativity, business literacy, and practical understanding of entrepreneurship. Through a combination of theoretical learning and hands-on practice, the participants developed essential skills in beverage preparation, cost calculation, and selling





price determination. The program effectively bridged the gap between academic learning and real-world business practices, empowering students to apply entrepreneurial concepts in a tangible and engaging way(Maldin et al., 2025).

The collaboration between Batam Tourism Polytechnic and Al-Azhar Private Senior High School demonstrated the effectiveness of academic–community partnerships in implementing the *Tri Dharma of Higher Education*, particularly in the area of community service and empowerment. Students not only gained technical knowledge but also built confidence, teamwork, and problem-solving skills—competencies essential for future entrepreneurs(Alhamdi & Saputra, 2025). Overall, the program achieved its primary objectives by instilling an entrepreneurial mindset among students and providing them with the tools to transform ideas into potential business opportunities. It also laid the groundwork for continued collaboration between institutions to promote youth entrepreneurship and local creative economic growth. This initiative stands as a sustainable model for community-based entrepreneurship education that can be replicated in other schools across Indonesia(Alhamdi, 2018).

SUGGESTION

Based on the outcomes of this community service activity, several recommendations can be proposed to ensure the sustainability and broader impact of the program.

First, it is recommended that similar entrepreneurship training be conducted periodically to reinforce students' knowledge and provide ongoing mentorship. Extending the duration of future programs would allow participants to deepen their understanding of business management, marketing, and innovation.

Second, schools are encouraged to integrate entrepreneurship and financial literacy topics into their regular curriculum or extracurricular activities. Embedding these themes within learning programs will ensure that students continuously practice entrepreneurial thinking and develop long-term interest in business creation.

Third, collaboration between Batam Tourism Polytechnic and Al-Azhar Private Senior High School should be maintained and expanded to include practical business incubation projects. This partnership could facilitate the establishment of





a school-based mini café or beverage business, allowing students to apply their skills in a real business environment.

Finally, it is suggested that future community service initiatives explore additional components such as digital marketing, product branding, and sustainability in beverage production. These areas will provide students with comprehensive competencies to compete in the modern creative economy.

Through continued cooperation and program enhancement, the impact of this initiative can extend beyond the classroom—empowering young generations to become innovative, independent, and socially responsible entrepreneurs.

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