



Analysis of Business Incubators in Vocational High Schools in Building Student Business Start-Ups (Study on Vocational High Schools in Mojokerto Regency)

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Abstract, This study aims to analyze the role of business incubators in State Vocational High Schools (SMKN) in building student business start-ups in Mojokerto Regency. Business incubators in SMKN have great potential to encourage the development of students' entrepreneurial skills through training, mentoring, and access to business resources. The research approach used is qualitative with a case study method, involving the principal, incubator manager, entrepreneurship teacher, and students as research subjects. Data collection techniques were carried out through in-depth interviews, observation, and documentation. The results of the study indicate that business incubators in SMKN act as the main facilitators in improving students' skills and motivation to start a business. Supporting factors for the success of the program include school support, cooperation with the business world, and adequate facilities. However, several challenges were also identified, such as limited funds, human resources, and low student participation. However, the existence of business incubators has had a positive impact on students' readiness to establish start-ups, as seen from the success of several students in developing independent businesses. This study concludes that optimizing business incubator programs requires increased financial support, strengthening partnerships with the industrial world, and integrating practice-based entrepreneurship curriculum. The recommendations of this study are expected to be a reference for SMKN managers and other stakeholders to improve the effectiveness of business incubator programs in producing a competent generation of young entrepreneurs.

Keywords: Business incubator, student start-up, entrepreneurship, SMKN Mojokerto

1. INTRODUCTION

Business incubators at State Vocational High Schools (SMKN) play a strategic role in supporting the development of student entrepreneurship, especially in responding to the challenges of the digital economy era. As a vocational education institution, SMKN not only prepares students with technical skills that are in accordance with the needs of the industrial world, but also equips them with entrepreneurial skills to face the challenges of an increasingly complex world of work (Kirana Dewi & Prianthara, 2022; Rauf et al., 2021; Sulistyowati et al., 2023). Business incubators are present as a superior program that acts as a bridge between classroom learning and real practice in the business world. This program allows students to develop their creative ideas into sustainable start-ups through training, mentoring, and facility support. In addition, business incubators also strengthen the role of SMKN as the main link between the world of education and the business world, creating synergies that allow students to gain real experience and broader insights into the business world.

Mojokerto Regency, with its great potential in developing a local business ecosystem, provides a great opportunity for business incubators at SMKN to become a catalyst in encouraging student innovation and entrepreneurship. This area has local potential that can be developed into superior products, such as agribusiness, culinary, and creative services (Tomy & Pardede, 2020; Trisiana et al., 2020). However, the success of business incubators at SMKN often faces various challenges, such as limited funds to support facilities and training programs, lack of competent human resources to become mentors, and low student participation due to lack of motivation or understanding of the importance of entrepreneurship (Amofah & Saladrignes, 2022; Shpeizer, 2019). Therefore, this study is important to understand how business incubators at SMKN can function optimally in building student start-ups and identifying opportunities and obstacles faced in their management.

This study focuses on three main aspects, namely how business incubators function in supporting the development of student start-ups, what factors influence their effectiveness, and the challenges and opportunities faced in managing the program. With this approach, the study aims to analyze the functions and roles of business incubators in SMKN and provide applicable recommendations for optimizing business incubator programs. The recommendations produced are expected to help SMKN in producing a generation of competent and highly competitive young entrepreneurs, while also making a real contribution to the development of an innovative and sustainable local economy.

2. LITERATURE REVIEW

Business Incubator

A business incubator is a facility or program designed to support the development of business ideas into sustainable businesses. In the context of education, business incubators play an important role in providing training, mentoring, and access to business resources for students. Conceptually, business incubators aim to accelerate the learning and innovation process through intensive guidance and networking support. Business incubators in educational institutions, especially in vocational schools, have a unique role because they not only prepare students for the world of work, but also build an entrepreneurial mentality. Various case studies show that the existence of business incubators in vocational schools can improve students' practical skills, broaden their insight into the market, and encourage creativity in creating innovative business solutions.

Student Entrepreneurship

Entrepreneurship education at school level has a strategic role in shaping the entrepreneurial character of students from an early age. This character includes the ability to take risks, think creatively, and have long-term motivation and vision. Business incubators have a significant impact on students' readiness to start a business, both in terms of technical skills and self-confidence. Through intensive training and direct experience, students not only understand the theory of entrepreneurship, but also get the opportunity to apply their knowledge in a supportive environment. This is in line with the goal of vocational education, which is to produce graduates who are ready to work and are able to create jobs.

Conceptual Framework

The conceptual framework of this study focuses on the relationship between business incubator programs, school support, and the success of student start-ups. Business incubator programs act as catalysts that provide facilities, training, and mentoring to students. The success of this program is highly dependent on support from the school, including the provision of resources, integration of entrepreneurship-based curriculum, and collaboration with the business world and industry. The success of student start-ups can be measured by their level of readiness to start a business, the sustainability of the business they pioneered, and their contribution to the local business ecosystem. The synergistic relationship between incubator programs, institutional support, and student motivation is expected to create a sustainable positive impact on entrepreneurship development at the vocational school level.

3. RESEARCH METHODS

This study uses a descriptive qualitative approach with a case study method to explore the phenomenon of business incubators at SMKN in Mojokerto Regency (Creswell, 2019a). This approach was chosen to explore in depth the process, challenges, and opportunities in implementing business incubator programs in building student start-ups. The research location focused on several SMKN in Mojokerto Regency that have business incubator programs, considering the relevance and potential of these incubators in producing competent young entrepreneurs.

The research subjects consisted of school principals, business incubator managers, entrepreneurship teachers, and students participating in the business incubator program. The selection of these subjects aims to obtain a comprehensive perspective on the role and effectiveness of business incubators in supporting student entrepreneurship development. Data

were collected using three main techniques, namely in-depth interviews, observation, and documentation (Creswell, 2019a). In-depth interviews were conducted with program managers and students to understand the experiences, challenges, and results achieved through the incubator program. Observations were conducted to directly observe business incubator activities in schools, including the mentoring and training processes. Documentation includes work program analysis, activity reports, and other supporting data related to program implementation.

The collected data was analyzed using thematic analysis techniques, which include the process of data coding, categorization, and drawing main themes relevant to the research objectives. To maintain data validity, source triangulation was carried out by comparing data from various informants and documents. Member checks were also carried out by confirming the results of interviews with informants to ensure data accuracy. In addition, an audit trail was used to document the research process transparently, thus ensuring that the research results are reliable and accountable. With this method, the study is expected to be able to provide an in-depth picture of the role of business incubators in building student start-ups at SMKN Mojokerto Regency.

4. RESEARCH RESULTS

Description of Business Incubator Program

Business incubators at State Vocational High Schools (SMKN) in Mojokerto Regency are designed to integrate entrepreneurship theory with real-world practice, enabling students to develop business ideas into sustainable start-ups. The structure of business incubators in these schools involves managers consisting of entrepreneurship teachers, professional mentors, and support staff who have experience in the business world. This organization is led by a program coordinator who is responsible for strategic planning and implementation of activities, including resource procurement, the formation of an entrepreneurship-based curriculum, and program evaluation. The main activities of the incubator include intensive training on business idea development, operational management, digital marketing strategies, and financial management. In addition, students receive assistance from mentors who are tasked with providing guidance in dealing with specific challenges, such as validating business ideas, building business models, or developing business expansion strategies (Ristovska & Blazheska, 2021).

Incubators also collaborate with external partners, including the business world, universities, and financial institutions, to provide access to broader resources. Some incubators have offered access to seed funding through school grant programs or partnerships with local investors. This program not only helps students realize their business ideas but also provides hands-on experience in managing financial resources. Activities such as internal business competitions and student business exhibitions are also regularly held to encourage innovation and introduce students to the business world in a professional manner.

Supporting and Inhibiting Factors

The results of the study show that the success of the business incubator program is greatly influenced by support from various parties, both internal and external. School support in the form of budget allocation for operational activities, provision of facilities such as business laboratories and co-working spaces, and training for managers are important elements in supporting the sustainability of the program. In addition, collaboration with the business world provides opportunities for access to a wider business network, quality mentors, and potential markets for products or services produced by students. However, the business incubator program also faces various obstacles. One of the main challenges is limited funding, which often limits the scope of activities and innovation in this program. The limited human resources who have special competencies in the field of business incubation are also a significant obstacle, especially in assisting students in depth. In addition, the uneven level of student participation is a concern (Wulandari et al., 2021). Some students feel less confident in getting involved in this program, while others do not have a great interest in entrepreneurship, even though the program has been designed to encourage their interest through interesting activities.

Impact of Business Incubators

The existence of business incubators has a significant impact on students' readiness to start and manage a business. Students who participate in this program show significant improvements in various aspects of entrepreneurship, such as the ability to identify business opportunities, prepare business plans, and manage business operations. In addition, non-technical skills such as decision-making, negotiation, and business communication also improve. Some students have even succeeded in establishing sustainable businesses, such as snack businesses, digital marketing services, and locally-based creative products, which have a positive economic impact on students and their families (Adeniyi et al., 2024). This success strengthens the motivation of other students to get involved, while strengthening the image of SMKN as an educational institution that produces competent young entrepreneurs.

Discussion

This study confirms previous findings that business incubators in educational institutions can be an effective tool to prepare students to face the business world. However, the context of SMKN in Mojokerto Regency shows specific challenges, such as budget constraints, minimal managerial competence, and varying student participation. To overcome these obstacles, a more focused development strategy is needed, such as increasing partnerships with the private sector, intensive training for incubator managers, and providing incentives for students to increase their interest in this program. In addition, local governments can play an active role in supporting the development of business incubators by providing technical assistance, funding, and regulations that encourage business participation in this program (Adeniyi et al., 2024). With a collaborative approach between schools, the business world, and the government, business incubators at SMKN will not only be a place to develop business ideas but also become the foundation for a strong entrepreneurial ecosystem in Mojokerto Regency. In the future, this success can be replicated in other regions to create a generation of young entrepreneurs who are innovative, creative, and competent in facing global challenges..

5. CONCLUSION

The results of the study show that business incubators at SMKN have an important role in building student start-ups through training, mentoring, and funding. This program improves technical skills and shapes students' entrepreneurial mentality. The success of the program is influenced by school support, partnerships with the business world, and student enthusiasm. However, challenges such as limited funds, lack of human resources, and suboptimal student participation still exist. Even so, the positive impact is seen in the increasing readiness of students to start a business and examples of successful start-ups.

To optimize the role of business incubators, there needs to be increased financial and technical support from schools and the government. A larger allocation of funds will support more comprehensive training programs and adequate facilities. Strengthening partnerships with the business world will provide market access and collaboration opportunities. In addition, the development of an entrepreneurship curriculum at SMKN needs to be carried out so that classroom learning is in line with real business practices, making business incubators a catalyst for sustainable entrepreneurship.

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