



Development of a Digital Business Laboratory as a Business Incubator to Enhance the Entrepreneurial Creativity of FE UNIMED Students

Novita Indah Hasibuan¹, Danny Ajar Baskoro^{2,*}, Alfi Nura³

^{1,2} Program Studi Pendidikan Bisnis, Fakultas Ekonomi, Universitas Negeri Medan

³ Program Studi Pendidikan Administrasi Perkantoran, Universitas Negeri Medan

*Corresponding author. Email: ajarbaskoro@unimed.ac.id

ABSTRACT

This research aims to develop the Digital Business Laboratory into a business incubator capable of enhancing students' entrepreneurial creativity. The research utilizes a development method that follows the Four-D model, involving the stages of "define, design, develop, and disseminate." The Digital Business Laboratory was implemented for four months in two entrepreneurship lecture classes using a new learning model. Data were collected through surveys and questionnaires, measuring the levels of entrepreneurial ideas, innovation, and creativity. The results indicated that the Digital Business Laboratory had a positive influence on enhancing students' entrepreneurial creativity, particularly regarding the generation of innovative business ideas, the development of differentiated products or services, and creative approaches to business operations. Additionally, the Digital Business Laboratory provides administrative support, access to funding, and expert human resources in the field of entrepreneurship. In conclusion, the development of the Digital Business Laboratory into a business incubator can significantly contribute to enhancing students' entrepreneurial creativity and preparing them for successful entrepreneurship in the future.

Keywords: *Digital Business Laboratory, Business Incubator, Entrepreneurial Creativity, Students.*

1. INTRODUCTION

The digital revolution has brought about significant changes in the global business landscape, including in Indonesia. The advancement of digital technology has created fresh opportunities for entrepreneurs to expand their businesses online, access global markets, and adopt innovative business models. The responsibility of fostering business development and entrepreneurship lies not only with entrepreneurs but also with higher education institutions and students who must be adaptable in navigating this evolving landscape. Entrepreneurship is no longer confined to traditional business practices; it now encompasses innovation, creativity, and the ability to swiftly adapt to rapid changes.[1]. Students need to develop entrepreneurial skills that can be applied in various contexts, whether as independent entrepreneurs, members of startup teams, or innovators within existing companies. The ability to identify opportunities, face challenges, and innovate is key to success in an ever-changing environment [2]. With good adaptation, students can take advantage of opportunities, overcome obstacles, and generate positive effects on entrepreneurship. Therefore, educational institutions need to provide education and a supportive

environment for students to develop the adaptive attitudes and entrepreneurial skills required to deal with the dynamic business world.

Indonesian students play an important role in entrepreneurship. They are creative, energetic, and have full potential. Many students were interested in developing their business ideas. By continuously implementing new ideas, they can fulfill customers' needs and wants in a better way, increase customer satisfaction, and create a competitive advantage for their products[3]. In a competitive market, creativity and innovation enable businesses to differentiate themselves from their competitors, create new opportunities, overcome challenges, and turn obstacles into competitive advantages. By creating unique and differentiated products or services, businesses can attract consumer attention, build strong brands, stimulate consumer emotions, and build strong relationships with customers. Therefore, it is important to encourage and reward creativity and to create a strong culture of innovation in the learning process.

Students interested in developing business ideas and launching startups often face several challenges. One of

the main challenges faced by students is often not having extensive experience or knowledge in running a business[4]. Students may not have a sufficient understanding of business management, product development, marketing, or finance. This lack of experience can be an obstacle to making strategic decisions, building networks, and handling operational challenges.

Network limitations can affect students' ability to identify experienced mentors or consultants to provide guidance and advice. Lack of access to the right mentors can make it difficult for students to overcome problems that arise during their business development journey. In addition, time demands were high, especially if they were still active in the study program. Balancing academic tasks with business development can be a challenge. Students need to manage their time efficiently to prioritize and allocate sufficient time to develop business ideas and launch startups.

Although students face many problems in developing business ideas and launching startups, it is important for institutions, especially study programs, to find solutions from the available resources. Participating in incubation or acceleration programs, finding experienced mentors, joining entrepreneurial communities, and conducting independent research can help overcome these obstacles[5].

Business laboratories play an important role in helping study programs and students by keeping up with the times and changing the existing paradigms. In an era that continues to rapidly develop, the old paradigm in business laboratories must be updated to remain relevant and effective. By adopting the new paradigm [6]By adopting the new paradigm [6], business laboratories can

2. THEORETICAL FRAMEWORK

Business laboratories have great potential to develop into business incubators[7]. The transformation from a business lab to a business incubator not only provides facilities and resources for business idea development, but also provides more thorough support in the process of planning, launching, and growing a new business. Business incubators can involve experienced mentors, intensive training sessions, and access to a wide network of investors and industries. This will help students or new entrepreneurs overcome initial challenges, test business models, and secure the necessary funding. Thus, the development of business labs into business incubators significantly contributes to increasing the chances of student business success and fostering the growth of a vibrant entrepreneurial ecosystem.

Business incubators in higher education have proven to be an effective way to make progress in higher education. Through business incubators, colleges can go beyond theoretical learning in the classroom and provide students with real-world experience in developing entrepreneurial and innovation skills[8]. By providing a workspace, experienced mentors, access to business

become centers of innovation and thinking that encourage students to develop skills and knowledge that are in line with current market needs. By keeping up with the times, business labs can introduce new concepts such as the latest technology, digital business, and social entrepreneurship. In addition, the new paradigm allows business labs to increase collaboration with the industry, expand mentor networks, and integrate cross-disciplinary approaches. By making these changes, business laboratories can bridge the gap between theory and practice, provide real-world experiences to students, and prepare them to become innovative and competitive future leaders.

This research introduces a novel approach to enhancing entrepreneurship among university students through the development of a Digital Business Laboratory, serving as a pre-incubator platform. It innovatively integrates digital tools like Google Trends and social media analytics into the learning process, providing students with real-time market insights for informed decision-making. The comprehensive training program covers traditional and digital business aspects, including marketing, legal considerations, and intellectual property rights, ensuring students acquire a well-rounded skill set. A hybrid orientation approach combines offline and online components to cater to diverse learning needs, while the structured assessment and mentorship phases equip students with practical entrepreneurial competencies. The research emphasizes feedback and continuous improvement through post-program questionnaires, ensuring the Digital Business Laboratory remains relevant and effective in nurturing entrepreneurship in response to the evolving needs of today's students and the dynamic business landscape.

resources, and industry connections, business incubators allow students to apply their knowledge in the real world of business. This not only helps students gain valuable practical insights but also prepares them to become future leaders who innovate and take risks. In addition, business incubators also encourage collaboration between students, lecturers, and business experts, creating an environment that supports the exchange of ideas and the discovery of new solutions. To create innovation and advance education, business incubators have proven themselves to be an effective vehicle for connecting theory with practice, helping students develop resilient entrepreneurial skills, and driving economic and social growth in communities.

Entrepreneurial Creativity

Entrepreneurial creativity is the ability to generate new, original, and innovative ideas in the context of business and entrepreneurship[9]. The theories of entrepreneurial creativity involve understanding the factors that influence the emergence of creativity in the context of new business development. One theory related

to entrepreneurial creativity is the system theory of creativity [10]. This theory argues that creativity is the result of interactions between components in a complex system, including the individual, the environment, and the creative process.

In the context of entrepreneurship, individuals with a creative personality, extensive knowledge and experience, and a positive attitude towards risk can contribute to entrepreneurial creativity. Theories of entrepreneurial creativity involve understanding the individual, creative process, and environmental factors that influence creativity in the context of new business development [11]. By understanding these theories, entrepreneurs can enhance their creativity, generate innovative ideas, and create significant added value in a competitive business environment.

Business Incubator

A business incubator in higher education is an institution or program designed to assist students, alumni, and entrepreneurial groups in developing and starting new businesses [12]. These business incubators serve as a bridge between the academic environment and the business world, providing support, resources, and an environment conducive to business idea development and start-up growth.

The main objective of business incubators in higher education is to facilitate entrepreneurship and innovation by providing various services and benefits to young entrepreneurs. Y.S Contreras in his research [13] explains business incubators in higher education including, support and mentoring, access to resources and networks, training and learning opportunities, Training and learning opportunities to young entrepreneurs, Concept Testing and Validation, and Liaison with the Business Ecosystem.

With business incubators in higher education, students and alumni have access to the resources, knowledge, and support needed to develop and start new businesses. Business incubators help create an environment that supports innovation, creativity, and sustainable business growth.

Entrepreneurship

Entrepreneurship is the process of identifying, creating, and executing business opportunities to generate value-added [14]. An entrepreneur can identify opportunities, take risks, and organize resources to develop and manage a successful business. Entrepreneurship involves creating value through the establishment and development of a business. It involves various stages including the identification of business opportunities, planning, product or service development, marketing, financial management, and operational management.

An entrepreneur must have the ability to overcome challenges, take risks, and adapt quickly to market changes [15]. Entrepreneurship plays an important role in

the economy by creating jobs, driving innovation, and contributing to economic growth. In addition, entrepreneurship provides opportunities for individuals to realize their dreams, pursue their passions, and turn ideas into reality.

Business Laboratory

A business laboratory is a facility or entity in which students, young entrepreneurs, or individuals interested in the business world can develop and test their ideas [16, hlm. 591]. Business laboratories provide a simulated environment that allows participants to learn and apply business concepts practically. The main objective of a business laboratory is to provide students with practical experience in developing entrepreneurial skills and understanding the aspects involved in starting and managing a business [17, hlm. 6]. Business labs create a space for participants to innovate, test ideas, and learn business processes.

Some features or components of business laboratories are presented in Memon's paper [18], among others. Workspace and infrastructure, mentors and experts, training and learning opportunities, industry connections, concept testing, and validation. Through business labs, participants can develop entrepreneurial skills, test business ideas, and gain a deeper understanding of relevant business aspects. Business labs play an important role in helping aspiring entrepreneurs prepare themselves before entering a competitive and challenging business world.

Business Laboratory, Business Incubator, Entrepreneurship

Business incubators and business laboratories support entrepreneurship in universities by providing various services and resources. These include physical infrastructure, networking opportunities, financial support, business assistance, and an enabling environment [19]. University incubators guide and motivate students, teaching staff, and university employees to achieve entrepreneurial achievements in various disciplines and fields [19] [20]. They also play a role in spreading the culture of entrepreneurship among students by introducing entrepreneurship courses within the compulsory requirements at the university level [21]. Academic business incubators, specifically located within universities, are closely integrated with the activities of universities for the development and dissemination of knowledge [22]. They create an enabling environment for young people to develop their entrepreneurial skills and knowledge, preparing them to create jobs. University business incubators are uniquely positioned to foster transnational entrepreneurship and the evolution of business and technical communication practices on a worldwide basis.

3. METHODOLOGY

This is a research and development (R&D) that adopts the Four-D model originally developed by Thiagarajan [23] in 1974. This Four-D model consists of four stages namely "define, design, develop, and disseminate." The research and development steps involved a preliminary study, design, and development of a model based on the research objectives. This research is complemented by experimental research to evaluate

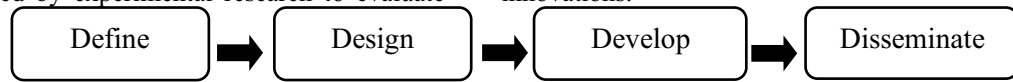


Image 1. 4-D research and development model

In the context of this research, the Define stage will be a very important first step. At this stage, the research will identify relevant problems in the entrepreneurship domain, such as the constraints that students face in developing a business idea or managing a small business. In addition, a needs analysis of stakeholders, including students, lecturers, and the business community, will be conducted to understand their perspectives and expectations of the research.

The Design stage in this research will be the next crucial step after the Define stage. At this stage, the research will focus on designing an innovative and relevant learning or business incubator. During the Design stage, a learning concept that can encourage students' entrepreneurial creativity will be established. This includes designing training materials, teaching methods, as well as learning strategies that will be used in the context of the business laboratory. The design will also take into account the integration of supporting technologies and tools, such as software or digital platforms that can enhance the student experience.

The Develop stage is the next part in this research series. After the Define and Design stages are completed, this stage will focus on the concrete development of the model or solution that has been designed. The Develop stage involves developing the learning content, procuring the necessary equipment or technology, as well as developing a structured training schedule. In addition, the team will conduct initial trials to ensure that the model works as planned and can deliver the expected benefits. This stage also includes training laboratory staff or instructors who will be involved in the implementation of the model.

The Disseminate stage is the last stage in this development research. This stage aims to communicate the results of the research to various interested parties. In the context of this research, dissemination is carried out in various ways. First, the research results can be disseminated through scientific publications, such as journals and scientific conferences, so that they can be accessed by the research community. In addition, the Disseminate stage also includes the socialization of research results to students and instructors who will use the developed business model or incubator. This involves training and orientation related to the use of the model. In this way, the educational community can easily adopt this model in their entrepreneurial practices.

the effectiveness of the developed model. The experiment was conducted using an instrument designed to test students' entrepreneurial ideas and innovations before and after their participation in a digital business laboratory. The purpose of this experiment was to measure the changes and impact of learning in a digital business laboratory on students' entrepreneurial ideas and innovations.

The data collection techniques used in this study included interviews, documentation, and questionnaires. Interviews were conducted in the form of focus group discussions with participants. Two lecturers, who became research participants, came from the Business Education Study Program at the Faculty of Economics, State University of Medan. The purpose of this interview was to gain insights and perspectives from these lecturers on the development of business laboratories and business education in higher education. In addition to the interviews, data were also collected through documentation, which included notes, documents, and lecture materials related to business laboratories and business education. In addition, a questionnaire was used to collect data from students who had attended business education programs. This questionnaire was designed to explore students' views and experiences regarding the influence of business laboratories on developing their entrepreneurship and creativity. Using diverse data collection techniques, this research is expected to provide a comprehensive understanding of the role of business laboratories in business education in higher education.

The model developed in this study was implemented over four months from March to June 2022. The model was implemented in two entrepreneurship lecture classes in the Business Studies Program at Medan State University. The purpose of this implementation was to observe the impact of the model on students' entrepreneurial ideas, creativity, and innovation through experimental research. The respondents involved in this experimental research were 63 students enrolled in two entrepreneurship lectures. To measure the effectiveness of the laboratory in business learning, respondents were asked to fill out a questionnaire that uses a Guttman scale with certain score criteria to assess the feasibility level of their entrepreneurial ideas. By involving a representative number of respondents, this research is expected to provide an accurate picture of the impact of the developed model on students' entrepreneurial ideas.

The purpose of this study is to find an effective model for developing a business laboratory in a business incubator by conducting an in-depth analysis of students' business development characteristics and needs. Furthermore, the designed and tested results can expand the role of business laboratories in business incubators to provide comprehensive support in planning, launching, and growing new businesses. By finding an effective

model, this research is expected to provide practical guidance for educational institutions or agencies that want to develop their business labs into business

4. RESULTS

The results of this study consist of several sections organized according to the research stages which include the "define" stage, the "design" stage, and the "develop" stage.

Define

The results of this study include a clear and detailed description of the initial conditions, research objectives, and an in-depth understanding of the concept of entrepreneurial creativity within a business laboratory. At the "define" stage, this research began by conducting a preliminary study involving direct observation activities in the field. This study aims to directly observe the potential problems that occur in the field related to the utilization of laboratories in entrepreneurship learning. In addition, this research relied on literature studies to gain a deeper understanding of the topic under study. The necessary data and information are also collected through various sources, such as interviews, surveys, or documentation of lecturers who have been utilizing the laboratory. By combining the results of observation, literature study, and data and information collection, this "define" stage aims to formulate the potential and problems that are the focus of the research, so that it can be the basis for the next stage in developing the entrepreneurial creativity model.

The initial analysis shows that there is a lack of laboratory support for entrepreneurship based on

incubators capable of providing optimal support for students who want to start their businesses.

observations and factual models. Some of the findings obtained through the observation and analysis of factual conditions include a lack of facilities and infrastructure that support entrepreneurship, limited human resources and mentorship, and a lack of programs and activities that encourage creativity and innovation. These findings will form the basis for developing a more effective development model and relevant solutions to improve the quality and effectiveness of business laboratories in supporting student entrepreneurship. In summary, the factual model is depicted in the figure.

Design

At the "design" stage, after obtaining the factual model, the design of the learning model is carried out based on the factual model and theoretical concepts related to learning entrepreneurship practices with a business incubator design in the laboratory. In this learning model design, the business laboratory is a simulation environment that allows students to apply entrepreneurial concepts to real practice.

Thus, the "design" stage in this research involves the process of preparing the design of an entrepreneurship practice learning model based on a business laboratory as a business incubator. The aim was to overcome the weaknesses of the previous factual model and create a learning environment that facilitates the development of student creativity and innovation in the context of entrepreneurship.

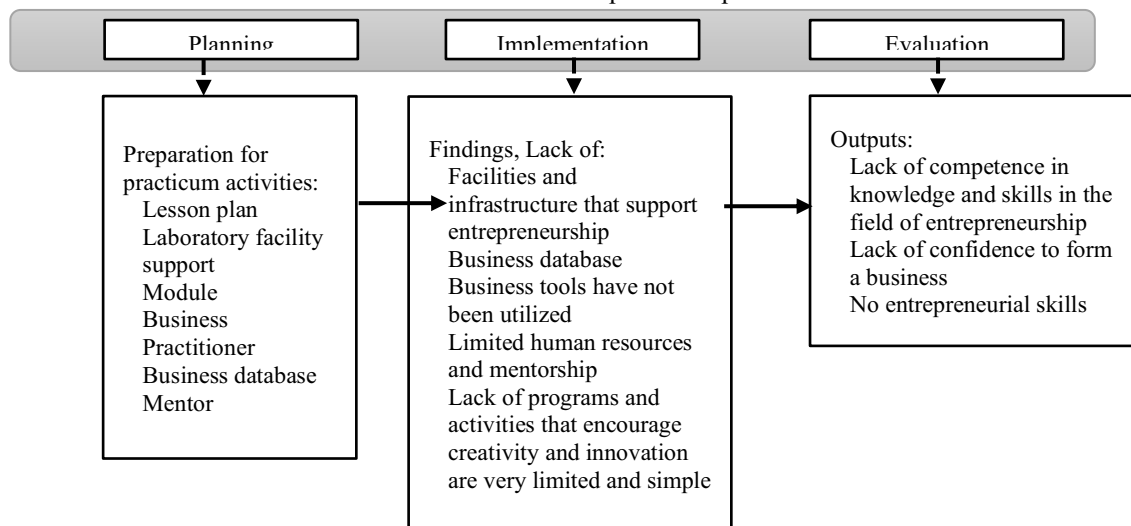


Image 2. Factual Model of Business Laboratory

Based on this design, a hypothetical model is proposed that contains several ideas that will be applied in the laboratory, including the availability of a

workspace specifically designed to support entrepreneurial activities in the laboratory. This workspace provides a conducive environment for

students to develop and run their businesses. Some of the necessary facilities and equipment, such as a large enough table and comfortable chairs, can be equipped with a creative area that facilitates the creativity process of students, such as an idea board, a place for brainstorming, or equipment for making prototypes or product samples. Computers and fast Internet access are important tools for accessing information, conducting market research, communicating with business partners, and managing the digital aspects of the business. The availability of reliable computers and the Internet makes it easier for students to operate their businesses.

Spaces equipped with meeting and presentation facilities, such as projectors, screens, whiteboards, or digital whiteboards, allow students to conduct team meetings, present to investors or potential business partners, and hold discussions and collaborations. The availability of relevant business software and applications can assist students in managing the operational and administrative aspects of the business. Examples include accounting software, human resource planning, and digital marketing tools.

Human resources within the laboratory act as mentors, coaches, and guides for young entrepreneurs to develop business ideas. This mentorship helps young entrepreneurs avoid common mistakes and accelerates their business development, where mentors will provide the knowledge and skills needed to develop a business, such as financial management, marketing, and operational management. This training and mentorship help young entrepreneurs improve their competence and understanding of running a business.

Business incubators have an important role in providing administrative support, especially in seeking the funding needed to grow their business, such as how to access Venture Capital and seek connections and potential investors, licensing, legalities, financial management, and general administrative management. They can assist entrepreneurs in dealing with a variety of complex administrative tasks and responsibilities by providing necessary guidance, knowledge, and resources. This support includes assisting in the licensing and

legality process for the business to operate legally, guiding financial management to properly manage business finances, and assisting in general administrative management such as contract drafting, inventory management, and data management.

Business creativity training aims to develop students' ability to think creatively and generate innovative ideas in the business context. Some of the topics covered in business creativity training include the following. (1) This training helps students learn techniques and methods to stimulate and develop creativity, such as brainstorming, mind mapping, analogies, and creative problem-solving techniques. (2) Learning from Inspiration teaches students to seek inspiration from their surroundings through observation, exploration, reading, or studying successful cases in the business world. (3) Enhancing the Flexibility of Thinking helps students develop the ability to adapt to change and consider innovative solutions to business challenges. (4) Encouraging experimentation and risk-taking, this training teaches the importance of trying new things, taking controlled risks, and learning from failure as part of the creative process in business. (5) Marketing and branching training focuses on marketing strategies, market research, branding, promotion, and the application of social media in building and marketing businesses. (6) Technology and Digital Skills Training helps students develop an understanding of and skills in the utilization of technology and digital platforms to improve operational efficiency, marketing, and business distribution. (7) Leadership and Team Development Skills Training aims to develop leadership, team management, collaboration, and cooperation skills in a business context. (8) Financial Skills and Analysis Training cover the basic understanding of financial management, financial statement analysis, financial planning, and asset management.

Through this training, students will acquire knowledge and skills relevant to the world of business and entrepreneurship. This training helped them develop and enhance their ability to become successful entrepreneurs.

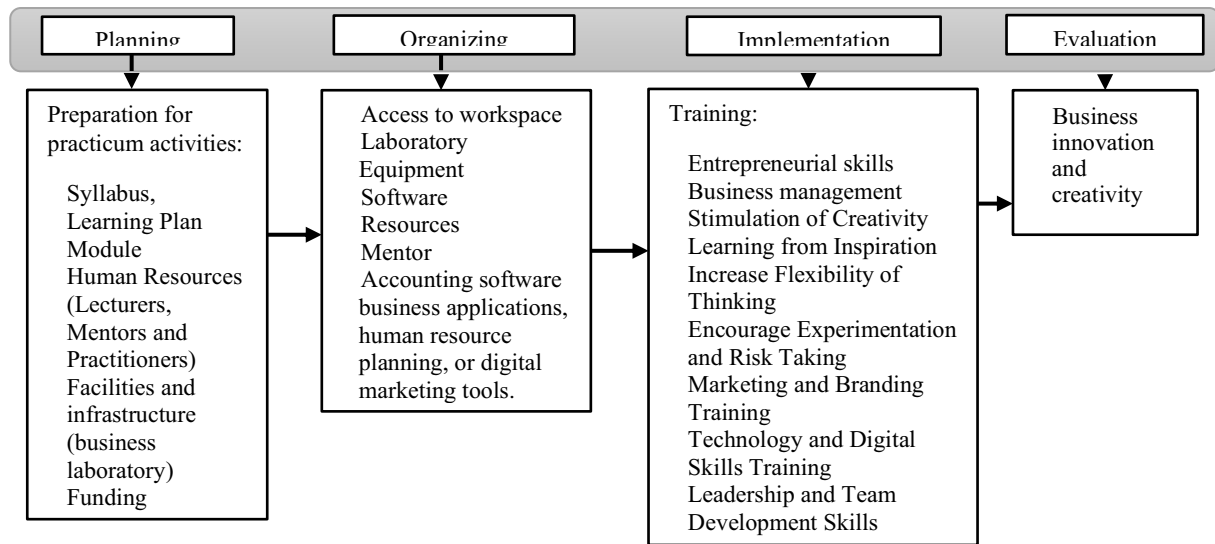


Image 2. Conceptual Model of Business Laboratory as Business Incubator

Development

This theoretical model was created after analyzing and designing a model that was validated by expert validators. This model was developed based on a previously validated conceptual model. In the development process, the model was improved and refined based on suggestions and inputs provided by the validators.

The resulting business incubator model optimizes the Business Laboratory as an environment for learning entrepreneurial practices. The purpose of this model is to improve student's practical skills and entrepreneurial spirit. The validation process involved four experts, consisting of two entrepreneurship lecturers from Medan Area University and two entrepreneurship lecturers from Pancabudi University.

After the validation process by experts, the development model or hypothetical business incubator model for learning entrepreneurship practices produces a practical learning model. This model is designed to provide students with practical experience in developing

entrepreneurial skills and applying concepts that have been learned in a real environment. Thus, this model is expected to provide significant benefits for improving the learning of entrepreneurial practices and preparing students to enter the business world.

The assessment to measure entrepreneurial creativity between the control class of 32 students and the experimental class of 31 students was conducted using the assessment instrument developed by the research team in Table 1 and the questionnaire to measure the effectiveness of laboratory development in learning (Table 2). The instrument was designed with a clear and objective assessment scale, thus allowing a comparison between the control and experimental classes in terms of entrepreneurial creativity demonstrated by students.

Number and Quality of Business Ideas, this indicator includes an evaluation of the number of business ideas generated by students from each class, as well as the quality of these ideas. Business ideas that are more innovative, and creative, and have the potential to generate high value-added will receive higher ratings.

No.	Indicator	Assessment Aspect	Experimental Class Score	Control Class Score
1	Number and Quality of Business Ideas	Innovation Level	3,8	3,4
		Creativity	3,9	3,3
		Value Added Potential	3,8	3,5
		Suitability to the market	3,7	3,6
2	Innovation in Product or Service Development	Novelty level	3,7	3,2
		Uniqueness	3,8	3,1
		Added Value	3,9	3,6
3	Creative Approaches to Running a Business	Creative marketing strategy	3,8	3,2
		Innovative problem solving	3,7	3,3
		Creative product or service development	3,9	3,4
		Initiative and innovation	3,8	3,3

*) Maximum score of 4

Table 1. Entrepreneurial creativity assessment

Innovation in Product or Service Development: This indicator assesses the extent to which students can apply the concept of innovation in the development of their business products or services. This can be seen in the level of novelty, uniqueness, and added value presented by the product or service developed.

The creative Approach to Running a Business involves assessing the extent to which students can apply it. This can be seen in creative marketing strategies, innovative problem-solving, and the ability to face creative challenges.

To assess the effectiveness of laboratory use as an entrepreneurship development tool, researchers distributed a questionnaire to students who had participated in programs or activities in the laboratory. The questionnaire included questions related to students' experiences in using the laboratory, the benefits they gained from using the laboratory, and the extent to which the laboratory helped them develop their entrepreneurial skills. In addition, the questionnaire included questions regarding the facilities and support provided by the laboratory.

No.	Question Item	1	2	3	4	5
1	Does the Digital Business Laboratory provide relevant insights and knowledge in the field of entrepreneurship?	3%	3%	3%	6%	85%
2	Does the Digital Business Laboratory encourage you to think creatively in generating business ideas and ideas?	0%	3%	6%	3%	88%
3	To what extent has the Digital Business Laboratory helped you in understanding the managerial and financial aspects of business?	9%	0%	6%	9%	76%
4	Does the use of tools like Google Trends and social media analytics help you gain market insights and relevant trends?	3%	0%	6%	6%	85%
5	Did the training provided at the Digital Business Laboratory help you to develop a comprehensive business plan?	0%	6%	3%	9%	82%
6	Do the assessments and innovations conducted in the Digital Business Laboratory provide a clear picture of your entrepreneurial abilities?	6%	0%	3%	9%	82%
7	To what extent do you feel that the Digital Business Laboratory has enhanced your overall entrepreneurial creativity?	3%	3%	9%	9%	76%
8	Does the Digital Business Laboratory meet your expectations as a business incubator?	0%	0%	6%	6%	88%
9	To what extent do you feel that the Digital Business Laboratory has helped you in developing skills and knowledge that can be applied in the business world?	0%	6%	3%	6%	85%

*) 1 = strongly disagree and 5 = strongly agree.

Table 2. Assessment of laboratory effectiveness as an entrepreneurial inquisitor

5. DISCUSSION

Table 1 shows a difference in scores between the experimental and control classes regarding the number and quality of business ideas. The experimental class outperformed the control class in all assessed aspects, including innovation level, creativity, potential added value, and market suitability. These findings align with the research conducted by Moura. [24], who found that an effective laboratory program can accelerate business ideas and transform knowledge into sustainable businesses. The experimental class also showed higher levels of creativity in running their businesses and had greater value-added potential for the products or services they offered. In addition, the business ideas generated were more in line with market needs. This result is consistent with Hua and Lu [25], where the program enabled participants to enhance the business potential of their ideas and develop their entrepreneurial skills through thematic workshops, coaching, networking, and pre-incubation.

Table 1 also shows that the experimental class scored higher than the control class in terms of innovation in product and service development. The experimental class scored higher in terms of novelty, uniqueness, and value-

added. This suggests that through the use of laboratories and approaches applied in the experimental class, students can develop products or services that are more innovative, unique, and provide higher added value[26]. Experimental classes can create new solutions, approaches, or concepts that differ from those already on the market. This result follows Grimshaw's opinion [27] that the use of laboratories has a positive impact on encouraging innovation in the development of products or services produced by students.

In terms of creative approaches to running a business, the experimental class scored higher than the control class. The experimental class scored higher in creative marketing strategies, innovative problem-solving, creative product or service development, and initiative and innovation. This shows that, through the use of the laboratory as a business incubator, students in the experimental class were able to apply a creative approach to running their businesses. They can develop creative marketing strategies, solve problems innovatively, develop products or services with a creative approach, and show initiative and innovation in doing business [7]. These results follow the research of Teng and Yang [28] that the use of laboratories as business incubators can

have a positive impact in encouraging a creative approach to running a business for students.

Based on the results of the questionnaire, several findings related to students' perceptions of the Business Laboratory were obtained. Most students (85%) agreed that the program in the laboratory provided relevant insights and knowledge in the field of entrepreneurship, which is in line with Curley and Formica's thoughts. In addition, the majority of students (88%) felt that the laboratory encouraged them to think creatively in generating business ideas and ideas. Concerning the managerial and financial aspects of business, most students (76%) felt that the laboratory helped them to understand them.

The use of tools such as Google Trends and social media analysis also received a positive response, with 85% of the students stating that it helped them gain market insights and relevant trends. Most students (82%)

CONCLUSIONS

Based on the findings and analysis previously described, it can be concluded that the Digital Business Laboratory plays a significant role in enhancing students' entrepreneurial creativity. By adopting a business incubator approach, the laboratory offers valuable resources, training, and mentorship that support the development of business ideas, innovation, and practical business skills.

This study provides evidence of the effectiveness of the Digital Business Laboratory in fostering innovative and creative business ideas, the creation of products or services that distinguish themselves from existing market offerings, and the adoption of creative approaches to business operations. The availability of administrative support, access to funding, and the presence of entrepreneurship experts as human resources are vital factors contributing to the laboratory's success as a business incubator.

Overall, these findings demonstrate the positive impact of the Digital Business Laboratory in nurturing

also considered the training provided in the lab helpful in developing a comprehensive business plan.

Most students (76%) felt that the Business Laboratory enhanced their overall entrepreneurial creativity. The majority of students (88%) also stated that the lab met their expectations as a pre-business incubator and helped them develop skills and knowledge that could be applied in the business world.

The results of this questionnaire indicate that the Business Laboratory has provided significant benefits to students in their entrepreneurial development, which is in line with Curley and Formica's thoughts[29]. This laboratory successfully provides insights, encourages creativity, helps understand managerial and financial aspects, and provides an overview of entrepreneurial abilities

students' entrepreneurial capabilities and preparing them for future entrepreneurial endeavors.

In addition, evaluation results and assessments from students show that the Digital Business Laboratory has met expectations as a pre-business incubator, provided relevant insights and knowledge, and improved skills and knowledge that can be applied in the business world. Students also recognized that the laboratory has made a significant contribution to enhancing their creativity in the context of entrepreneurship.

Thus, the development of the Digital Business Laboratory into a business incubator has brought positive impacts in enhancing students' entrepreneurial creativity. Recommendations for further development are to expand cooperation with industry and related parties, enrich training programs, and improve accessibility and utilization of laboratory facilities and resources by students. This will further strengthen the laboratory's role in supporting the development of entrepreneurship among students and encourage the creation of more successful young entrepreneurs.

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