

The Use of Natural Resources in Southern Kalimantan for the Development of Student Entrepreneurship

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Entrepreneurship is an activity of managing a business to produce value for life. The entrepreneurship development program at the Sari Mulia University campus is designed to identify and facilitate the development of potential local resources that can be used for human health, and also as a business field for students. One of the natural resources developed in this entrepreneurship program activity is the kelakai. The kelakai plant is a type of fern that grows in swampy land. The people of South Kalimantan use this plant as a medicine to cure anaemia and increase the volume of breast milk for postpartum mothers. In this program the plants are processed into healthy and nutritious food and beverage products for all people. The products of the kelakai plants are kelakai tea, kelakai meatball, kelakai chips, and kelakai masks or cream. This product is processed by lecturers and students by utilising existing technology and marketed through social media. It is hoped that this product can improve the degree of public health and increase the value of business for students to be used as a start in entrepreneurship training.

Key words: *kelakai chips, kelakai cream, Entrepreneurship, kelakai meatball, and kelakai tea.*

Introduction

Sari Mulia University is a high-level educational institution that has as one of its existing study programs, the subject of midwifery. In the diploma III study program in the field of midwifery, one of the goals is to teach about entrepreneurship, we as managers develop this program by providing entrepreneurship education to students. With this vision, Sari Mulia University always encourages and facilitates the implementation of entrepreneurial activities carried out by students under the direction of the supervisor. This is proven by the existence of soft skills activities on entrepreneurship, which are carried out every Saturday by students who are interested in the field with the guidance of supervisors who have abilities in the field. One of the outputs of this soft skill activity is in addition to participating in the competition at the Kopertis XI now called L2DIKTI and Ministry of Research, Technology and Higher Education levels, there are also products produced as evidence of the entrepreneurship of Sari Mulia, which are market value products such as making yogurt, kombucha, nata de pina, nata de naga and beauty scrub; this program runs on Saturday. The number of students in the University Sari Mulia who have studied midwifery entrepreneurship courses is 205 – they study entrepreneurship courses in the third semester. In this midwifery entrepreneurship course, students are equipped in how to become an entrepreneur, how to manage a business, how to deal with business obstacles and solutions, and trains students in preparing entrepreneurial proposals (Nebessayeva et al., 2018).

The development of entrepreneurship at University Sari Mulia is evidenced by the existence of mini markets, canteens, educational clinics, pharmacies and printing services that are already operating and contributing well in helping operational activities for the sustainability of the Sari Mulia. In addition, University Sari Mulia students have also won two Entrepreneurial Student Programs in 2012 and in 2014 one proposal was funded by DIKTI, and in 2016 the IbK proposal was funded by the Ministry of Research, Technology and Higher Education.

Efforts in developing and enhancing entrepreneurial activities are raising the local potential of the Kelakai plant of South Kalimantan,. The kelakai plant (*Stenochlaena palustris* (Burm.F) Bedd) is well known by the people of South Kalimantan as a medicinal plant because it is easy to obtain and has many benefits such as blood booster, breast milk enhancer, and serves as a delicious vegetable. Kelakai plants are widely grown in South Kalimantan, namely in swamp or peat soils. The people of South Kalimantan make use of the plant as a nutritious food, and as a medicine.

Kelakai (*Stenochlaena palustris* Bedd.) is a fern-type plant that can be found in India, Southeast Asia, Polynesia and Australia¹. This plant produces abundantly and contains sterile leaves and spores. Kelakai leaves can be used as traditional medicine because they contain a class of flavonoid compounds and tannins which among others serve to prevent blood deficiency

(prevent anemia), regulate menstruation and are antidiarrheals and efficacious as a fever reliever; they also treat skin pain, increase breast milk, and can treat cancer. Bioactive substances from the leaves are terpenoids, alkaloids, flavonoids and phenolics². Kelakai extract can be used as an anti-inflammatory, antimalarial and antioxidant according to empirical studies³. Active substances that exist in the environment such as phenolic compounds, tannins, and β -carotene can reduce free radicals⁴. The study of the bioactivity of the drug also shows antibacterial and antifungal properties. Kelakai is also indicated to reduce fever (Sohrabi, 2017).

Products from the kelakai that will be developed in this entrepreneurship program are; kelakai tea, kelakai meatballs, kelakai chips, and kelakai mask or cream. Students who take part in the entrepreneurship program are given the following training: entrepreneurship training on business management, cash flow management, product distribution or marketing, and standardised product processing methods. Furthermore, students are also included in the internship activities to related companies. Empirical findings provide support for trends such that in a survey of English students, 25% of respondents indicated that they have a business idea and 41% are likely to become entrepreneurs. Hart and Harrison⁵ explored the attitudes of high school students in Northern Ireland and reported that 47% expressed a desire to run their own businesses. Survey results in Ireland show that the average reported has a high tendency to becoming an entrepreneur⁶. The same findings are reported in the United States; a study conducted by Karr shows that 46% of students consider their own business as a good opportunity to get ahead. A clearer passion for entrepreneurship was expressed by MBA students from top business schools in the United States⁷. The aim of this entrepreneurship program is to form students with character and entrepreneurial potential that can be developed after they graduate.

Material and Methods

The Tenant Recruitment Pattern for Entrepreneur Program Participants

The pattern of recruitment of tenant participants in the entrepreneurship program at Sari Mulia University is as follows:

- a. Sari Mulia University will hold a selection of acceptance of business idea proposals at the beginning of the year, which can be followed by groups of students – both students who have already received entrepreneurship courses or students who are active in entrepreneurial soft skills and other creativity activities. Target acquisition is potential individuals /groups of potential entrepreneurs of at least 30 tenants or individual /groups of students.

- b. Of the 30 tenants or individual /groups of students who take part in the selection, a minimum of 20 tenants or individuals /groups of new entrepreneurial students will be selected and will undertake a coaching contract with Sari Mulia University for six months to prepare business ideas and solidify business ideas. During the training, new entrepreneurial groups will take part in basic entrepreneurship training, business exhibitions and even entrepreneurial proposal selection.
- c. Every six months there is monitoring and evaluation of the implementation of entrepreneurship activities for 20 tenants to produce five tenants who are able to do entrepreneurship independently.
- d. Tenants /groups of entrepreneurs who succeeded in winning the selection of business ideas are funded by the winning lecturer of community service grants for the implementation of business ideas.
- e. At the end of the formation of a new entrepreneurial group, the award-winning lecturer determines which groups are ready to implement the business idea by providing venture capital assistance.
- f. Groups of new entrepreneurs who have received capital assistance will enter the mentoring stage for a maximum of two years.
- g. This process will continue and will continue to be done by accepting new tenants or individual /groups of prospective entrepreneur students to replace tenants or individual /groups of entrepreneurial students who are able to be independent.

The Approach Method Applied

Entrepreneurship training has been carried out specifically through lecture material in midwifery, namely midwifery entrepreneurship courses for one semester in semester III and also on soft skills activities every Saturday about entrepreneurship, from starting the preparation of entrepreneurial proposals to becoming an entrepreneur. To equalise the experience it is necessary to conduct additional training specifically for the twenty students through this program in accordance with the area of interest.

In addition, prospective students who are new entrepreneurs will be included as an intern to an industry partner who has successfully become a successful entrepreneur in their field, and this involves lecturer partners who are entrepreneurs as partners. The pattern of guidance that will be applied is by mentoring by the lecturer for the business fields of interest by students after students get a briefing. The tenant supervision technique is carried out by the team and accompanying lecturers for each student.



Possibility of Collaboration with Similar Institutions outside Campus and Its Operational Patterns

The possibility of collaboration with similar institutions outside the Sari Mulia University dictionary is very possible: this is because many private institutions work in the field of entrepreneurship. Coupled with the assistance of entrepreneurship programs from the Ministry Research, Technology and Higher Education it will be possible to establish better cooperation. The entrepreneurship program in its implementation is closely related to other businesses outside the campus.

Preparation, Implementation and Evaluation of Entrepreneurship Development Program Activities

Preparation: Socialisation about entrepreneurship in the form of entrepreneurship training that aims to provide entrepreneurial knowledge, encourage the growth of entrepreneurial motivation, improve management understanding (organisation, management, finance, and marketing) as well as business plan training or business feasibility studies.

Implementation: When the number of students is recorded that will participate in the activity, 20 students will be selected to participate in the entrepreneurship development program in the form of; entrepreneurship training, apprenticeship in related companies, assistance, and business management.

Evaluation: At this stage an evaluation of all activities planned will be carried out, whether or not according to plan. Solutions to problems and obstacles can thereby be determined to improve the business and the progress of the business development program.

Number of Tenants Becoming Entrepreneurs per Year and Their Replenishment Strategies

The number of tenants to be acquired and trained to become new entrepreneurs is 20 tenants per year and each year a minimum of 7 graduates are required to be independent entrepreneurs.

The replenishment strategy exists so that the number of tenants obtained remains as many as 20 tenants by monitoring and evaluating at any time what and how and what obstacles are faced by tenants or students: by this process solutions can be quickly sought so that the number of tenants remains 20 per year. In addition, technological assistance and problem solving will be provided in accordance with the needs of each business unit. The method of problem solving will be monitored by the team and the accompanying lecturers and discussed for immediate resolution.

Results

Socialisation Program for Entrepreneurship Development

This activity is carried out to socialise the entrepreneurship development program (PPK) on the Sari Mulia University campus to all students who are interested in becoming entrepreneurs. This activity was attended by students from the midwifery DIII, S1 Nursing, and S1 Pharmacy (Fig 1). The materials presented at this activity are:

1. Presentation of several programs to be implemented at PPK Sari Mulia University.
2. Explanation of the mechanism for recruiting tenant candidates.
3. recruitment of PPK participants.

Presenters in the PPK socialisation activities are: Anggrita Sari, Adriana Palimbo, and Dede Mahdiyah.

Figure 1. Socialisation of Entrepreneurship Development Program (PPK) at Sari Mulia University.



Determination of Students as PPK Participants

The students to become PPK participants are determined after they take part in the socialisation and register themselves with the PPK team, which is coordinated by the LPPM (Institute for Research and Community Service). From the students who got there, 32 students were accepted to become PPK participants. They are from DIII of midwifery, S1 of nursing, and S1 of pharmacy.

Entrepreneurship Training

This entrepreneurship training activity is carried out after the students are determined to be PPK participants so entrepreneurship training will be included in accordance with the chosen program. This activity lasted for three days. This activity is trained by teams who are competent in their respective fields in accordance with the objectives achieved in the PPK program.

Evaluation of Activities

This evaluation activity aims to:

1. Monitoring the activities that have been carried out to determine the strengths, weaknesses and solutions that need to be applied.
2. Discussing activities that will be carried out next
3. Evaluating and assessing existing and future activities.

This evaluation activity and monitoring are conducted to assess and determine which business programs are successful and independent from the business tenants formed so that they can continue in their business activities.

Assessment with Partners and MoU (Memorandum of Understanding)

This activity is carried out after students take part in the training with the aim of appointing students who participate in entrepreneurship so that they can carry out their entrepreneurial programs well and partner for the smooth operation of PPK activities:

- Lasmita Sari Clinic is an internship for tenants of Gymnastics, Yoga and Kegel
- BPM Winda Maolinda is an internship for tenants of ASI Bank
- Hommy baby Spa is an internship for tenants of Baby Spa
- Teguh Meatballs is an internship for Kelakai meatballs tenants
- Temulawak sani is an internship for tenants of Fermented Tea
- Kopi 23 is an internship for Jus Dasir tenants
- Kue Dede is an internship for Kelakai Chips tenants
- Tahu Maju Lestari is a place for apprentices for yogurt tenants.

Internship

Internships are undertaken by students who have been elected as entrepreneurship development program participants. Internships are conducted in various places that have partnered in accordance with the type of business chosen. The internship lasted for two weeks to obtain

information and knowledge about entrepreneurial management and product management according to standards (Fig. 2).

Figure 2: Student internship activities that follow the entrepreneurship development program. (A) kelakai food tenants, (B) baby Spa tenants, and (C), kelakai beverage tenants.



Business Profile Entrepreneurship Development Program

1. Kelakai Meatballs Tenants

The kelakai meatballs tenant is run by Pharmacy students consisting of three students to manage the business (Fig. 3). Kelakai meatball products are produced by students who are trained, are creative and have participated in training and internships. Kelakai meatball products are sold in various places, namely Sari Mulia Mini Market, Warung near Banjarmasin 3 Vocational School and Sari Mulia LPPM as well as selling these products on social media namely IG, Line and WA.

Figure 3. Product of Kelakai meatball tenants.



2. Tenant of Fermented Tea from Kelakai Leaves

Ingredients for making fermented tea; kelakai, sugar and yeast. Kelakai washed and then boiled in hot water until boiling, allowed to stand until the nails warm, then sugar and yeast are added (Fig.4). After that it is put in a fermenting bottle and fermented for 24 hours. This tenant program is carried out by Pharmacy and Midwifery students who have been given training on entrepreneurship and have also been interned in related companies.

Figure 4. product of fermented kelakai tea tenants



3. Tenant Kelakai Chips

This tenant is carried out by Pharmacy, Midwifery, and Nursing students consisting of three students who manage businesses. Business capital is provided by community service lecturers

who are funded by the Ministry of Research, Technology and Higher Education. The products used are produced by students who are trained, are creative and have participated in entrepreneurship training, internships, and know how to process these products according to standards (Fig.5).

Figure 5. Product of Kelakai Chips Tenants.



4. Kelakai Mask/Cream

Kelakai mask tenants were managed by 3 Pharmacy students. This mask is produced from natural ingredients, namely kelakai plants which are beneficial for natural beauty and health (Fig. 6). This business is marketed through social media namely Instagram, Whatsapp, and Line. Students involved in this business who have graduated through entrepreneurship training and also internships in related companies.

Figure 6. product of Kelakai Mask Tenant



Discussion

The entrepreneurship development program at the Sari Mulia University campus conducted by Lecturers for students has been going well and according to plan. In this program, biological resources were raised from South Kalimantan, namely the kelakai plant. Kelakai is a plant that grows in swamps and is often used by the Banjar community as a complementary food ingredient as a vegetable, and is also used as a medicine for anaemia and as a supplement that increases the volume of postpartum mother's milk. The mature fronds of the fern are not used as a vegetable, probably owing to their tough texture. Both young and mature fronds of the fern are used in traditional medicine for treating diarrhoea, fever, swellings, skin diseases, as an abortifacient, contraceptive⁸.

Stenochlaena palustris (Kelakai): antiglucosidase potential, a medicinal, edible fern.⁹. The young fronds and fiddleheads of the fern are consumed as a vegetable in Asian countries, such as Malaysia, Indonesia, Thailand, India, and the Philippines¹⁰. Results of research suggest that phenolic compounds, particularly hydroxycinnamic acids, may have contributed to the antiglucosidase and antioxidant activities detected in *S. palustris*. Previous research was assumed that cannot rule out the possibility that phytochemicals not detected in this study may have contributed to the bioactivity of *S. palustris*³. Previous study revealed that the crude water extracts of the mature frond of *S. palustris* had higher antioxidant activity as well as higher polyphenol, flavonoid and hydroxycinnamic acid contents than the young frond⁴.

Based on the results of previous research identifying the many benefits of the kelakai plant, the entrepreneurship development program promotes and utilises the local potential in South Kalimantan as an ingredient to make good value products in terms of health, economic, social and cultural development for the community – South Kalimantan in particular and Indonesia in general. Products from this program are processed according to existing standards and have health benefits, namely kelakai fermented tea to increase the volume of breast milk, to reduce blood pressure, and also as a health drink in general. Another product, kelakai meatballs, is also beneficial for anaemia, and as a healthy food. Kelakai Chips produce health food products and kelakai masks that are used to tighten the skin and make the skin smooth and soft.

The program is expected to help to make students creative, innovative in developing a business and also hopefully the products of this program can be widely marketed throughout Indonesia and even abroad by increasing the quality and standards of product management to be competitive. In addition, this entrepreneurship program can introduce the unique culture of South Kalimantan to foreign countries by raising awareness of the kelakai plant as a food and a drink that has health value.

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