

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

By DEDE MAHDIYAH

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

Dede Mahdiyah*, Anggrita Sari, Adriana Palimbo, Putri V Darsono, Fauji Nurdin, Simeri Dona, Tuti Alawiyah

Universitas Sari Mulia, Banjarmasin, Indonesia
Corresponding author:mahdiyahdede@yahoo.co.id

Abstract

Entrepreneurship is an activity of managing a business to produce valuable value for life. The entrepreneurship development program at the Sari Mulia University campus is designed by drawing closer to 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 anemia 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 tea kelakai, meatball kelakai, chips kelakai, and masks or cream kream. This product is processed by lecturers and students by utilizing 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.

Keywords: Chips kelakai, cream kelakai, Entrepreneurship, meatball kelakai, and tea kelakai.

1. Introduction

Sari Mulia University is a high-level educational institution that is one of the existing study programs, namely midwifery. In the diploma III study program in the field of midwifery which has a vision of one of them 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 skills 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 scrub this beauty and program runs until now on Saturday. The number of students in the University Sari Mulia who have studied midwifery entrepreneurship courses is 205 students, they get entrepreneurship courses in the third semester. In this midwifery entrepreneurship course students are equipped with how to become an entrepreneur, how to manage a business, how to deal with business obstacles and solutions, and train students in preparing entrepreneurial proposals.

The development of entrepreneurship at University Sari Mulia is evidenced by the existence of mini markets, canteens, educational clinics, pharmacies and printing that are already operating and contribute 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 as many as two proposals and in 2014 one proposal was funded by DIKTI and in 2016 the IbK proposal was funded by Ministry of Research, Technology and Higher Education.

Efforts in developing and enhancing entrepreneurial activities by raising the local potential of South Kalimantan, the Kelakai plant. 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 delicious vegetables. 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 medicine. 7

Kelakai (*Stenochlaena palustris* Bedd.) Is a fern-type plant that can be found in India, Southeast Asia, Polynesia and Australia[1]. This plant produces fertile leaves that contain 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), regular menstruation and antidiarrheals and efficacious as a fever reliever, and also treat skin pain, increase breast milk, and can treat cancer. Bioactive substances from the leaves are terpenoids, alkaloids, flavonoids and phenolics[2]. Kelakai extract can be used as an anti-inflammatory, antimalarial and antioxidant according to empirical studies[3]. Active substances that exist in the environment such as phenolic compounds, tannins, and β -carotene can reduce free radicals[4]. The study of the biotivity of the drug also shows antibacterial and antifungal properties. Kelakai is also indicated to reduce fever.

Products from the kelakai that will be developed in this entrepreneurship program are; tea kelakai, meatball kelakai, chips kelakai, and mask or cream kelakai. 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 standardized product processing methods. Furthermore, students are also included in the internship activities to related companies. Such empirical findings provide support for trends in a survey of English students. 25% of respondents indicated that they have a business idea and 41% are likely to be entrepreneurs. Hart and Harrison[5] 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 become an entrepreneur[6]. The same findings are 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 States[7]. The aim of this entrepreneurship program is to form students with character and entrepreneurial potential that can be developed after they graduate.

2. 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 of 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 solidify business ideas and prepare 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. For 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 tenants or individual / groups of prospective new entrepreneur students to replace tenants or individual / groups of new 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 equalize 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 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

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

Implementation: When it is recorded that the number of students who will participate in the activity and will be selected, 20 students will 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. So that solutions to problems and obstacles can be determined during the business 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 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 so that 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.

3. Results

Socialization Program for Entrepreneurship Development

This activity is carried out to socialize 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 material 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 socialization activities are: Anggrita Sari, Adriana Palimbo, and Dede Mahdiyah.



Fig. 1 Socialization of Entrepreneurship Development Program (PPK) at Sari Mulia University. *Determination of Students as PPK Participants*

Determination of students becoming PPK participants after they take part in the socialization and register themselves with the PPK team which is coordinated by 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. Discuss activities that will be carried out next
3. Evaluate and assess existing and future activities.

In this evaluation activity, monitoring and evaluation are conducted to assess, determine which business programs are successful and independent from the business tenants formed so that they can be continued for 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 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 performed by students who have been elected to the 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 (Figure 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. Meatball Kelakai 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, 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 this business 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 added sugar and yeast (Fig.4). After that it is put in a fermented 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 tea Kelakai tenants

3. Tenant Chips Kelakai

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, creative and have participated in entrepreneurship training, internships, and know how to process these products according to standards (Fig.5).



Figure 5. Product of Chips Kelakai Tenants.

4. Mask/Cream of Kelakai

Kelakai mask tenants were held by Pharmacy students of 3 people. 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 and through entrepreneurship training and also internships in related companies.



Figure 6. product of Kelakai Mask Tenant

5. 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 such as vegetables, and is also used as a medicine such as for anemia and as a supplement that is to increase the volume of postpartum mother's milk. The mature fronds of the fern are not used as 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, contraceptive[8].

Stenochlaena palustris (Kelakai) have 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 Philippines[10]. Results 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 frond[4]

Based on the results of previous research with the many benefits of the Kelakai plant, so that the entrepreneurship development program promotes and utilizes the local potential in South Kalimantan as an ingredient to make good value products in terms of health and economic, social, and cultural development for the community. South Kalimantan in particular and Indonesia in general. Products from this program are processed according to standards and have health benefits, namely Kelakai fermented tea as an increase in 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 anemia, and as a healthy food. Chips of Kelakai products as health food products and wear masks are used to tighten the skin and make the skin smooth and soft.

The program is expected to be able 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 quality and competitive. In addition, this entrepreneurship program can introduce the unique culture of South Kalimantan to foreign countries by raising the Kelakai plant as food and drink that has health value.

References

- [1] W. Giesen, S. Wulfraat, M. Zieren, and L. Scholten, *Mangrove Guidebook*. (F. and W. International, Ed.). Thailand: Dharmasarn Co., Ltd., 2006.
- [2] R. Ho, T. Teai, J. Bianchini, R. Lafont, and P. Raharivelomana, "Ferns : From Traditional Uses to Pharmaceutical Development, Chemical Identification of Active Principles Ferns : From Traditional Uses to Pharmaceutical Development, Chemical Identification of Active.," *Issues and Applications*, pp. 321–346, 2010.
- [3] T. Chai, M. Kwek, H. Ong, and F. Wong, "Water fraction of edible medicinal fern *Stenochlaena palustris* is a potent α -glucosidase inhibitor with concurrent antioxidant activity," *FOOD Chem.*, vol. xxx, pp. 1–6, 2015.

- [4] T. T. Chai, E. Panirchellvum, H. C. Ong, and F. C. Wong, "Phenolic contents and antioxidant properties of *Stenochlaena palustris*, an edible medicinal fern," *Bot. Stud.*, vol. 53, no. 4, pp. 439–446, 2012.
- [5] H. M and R. Harrison, *Encouraging enterprise in Northern Ireland: constraints and opportunities*. Irish Business and Administrative Research, 1992.
- [6] F. P., *The role of structured interventions in shaping graduate entrepreneurship*. Irish Business and Administrative Research, 1994.
- [7] L. C and N. Franke, *The 'making' of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT*. 2003.
- [8] D. Darnaedi and T. Praptosuwiryo, "*Stenochlaena palustris* (Burm.f.) Bedd. In W. P. de Winter & V. B. Amoroso (Eds.)," in *Cryptograms: Ferns & fern allies*, Leiden: Leiden: Backhuys Publishers., 2003, pp. 186–188.
- [9] T. Chambers, "A review of the genus *Stenochlaena* (Blechnaceae, subfamily *Stenochlaenoideae*)," *Telopea*, vol. 15, no. 1, pp. 13–36, 2013.
- [10] M. Antonio, R. Utrera, E. J. Agustin, D. Jamias, A. Badar, and M . Pascua, "Survey and characterization of indigenous food plants in Ilocos Norte , Philippines. Los Baños , Philippines: South-east Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA).," 2011.

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

ORIGINALITY REPORT

11%

SIMILARITY INDEX

PRIMARY SOURCES

1	umpir.ump.edu.my Internet	133 words — 4%
2	onlinelibrary.wiley.com Internet	44 words — 1%
3	www.researchgate.net Internet	41 words — 1%
4	repository.ju.edu.et Internet	33 words — 1%
5	www.hindawi.com Internet	28 words — 1%
6	download.atlantis-press.com Internet	22 words — 1%
7	kasetartjournal.ku.ac.th Internet	19 words — 1%
8	www.dlsu.edu.ph Internet	18 words — 1%
9	"Ethnobotany of the Mountain Regions of Southeast Asia", Springer Science and Business Media LLC, 2021	9 words — < 1%

10 **biointerfaceresearch.com**
Internet

8 words — < 1%

EXCLUDE QUOTES ON

EXCLUDE SOURCES OFF

EXCLUDE BIBLIOGRAPHY ON

EXCLUDE MATCHES OFF