

Making Variety of Processed Gonggong Snails Become Culinary Alternatives in Bintan Island for The Community of Tanjung Talok, Teluk Sasah Village

Hary Jocom^{1*}, Yudy Sunantri², Desi Herlina³, Marchelino Aditya Prayoga⁴, Lilis Sri Handayani⁵, Mecaria Desifirsta Sibuea⁶, Sinta Monalisa Situmorang⁷

^{1,2} *Dosen Program Studi Seni Kuliner, Politeknik Bintan Cakrawala, Bintan, Kepulauan Riau*

^{3,4} *Mahasiswa Prodi Seni Kuliner, Politeknik Bintan Cakrawala, Bintan, Kepulauan Riau*

^{5,6,7} *Mahasiswa Prodi Pengelolaan Perhotelan, Politeknik Bintan Cakrawala, Bintan, Kepulauan Riau*

*haryjocom@pbc.ac.id

Abstract

Gonggong is known as a typical food from the island of Bintan, but its processing is only limited to boiling. Departing from this phenomenon, the main purpose of implementing community service is to diversify processed barking which economically has added value, and can be done on a household scale. Based on these main considerations, the objectives of PkM are: (1) Equipping the public with basic knowledge of entrepreneurship and product marketing; (2) Train the community to make various processed barks into barking prata and barking brains; and (3) Manufacture of processed drinks. The method used is through training which includes lectures, discussions, and most of the demonstration activities or practice of processing barking and drinks by involving participants in a participatory manner. This activity was attended by 23 participants consisting of women's groups in Tanjung Talok. Participants' assessment of organoleptic showed good numbers, even in terms of taste 93% said they really liked it, as well as other assessment components. However, the implications of this activity have not had a broad impact on building the entrepreneurial spirit of the community, only 13% (3 people) consistently start a household-scale entrepreneur, due to many factors that contribute to this condition.

Keywords: prata gonggong, brains gonggong, oceanic horizon, entrepreneurship, digital marketing

PRELIMINARY

Gonggong snails (*Strombus canarium*) are endemic animals that can only be found in the Riau Islands, especially Bintan Island and Bangka Belitung (Manalu et al., 2015; Viruly, 2011) . Gonggong has become an icon of the Riau Islands Provincial government which is enshrined in the Gonggong monument located on the beach in Tanjung Pinang City. Every tourist who travels to Bintan can not only enjoy the natural beauty or the fascinating culture of the community or religious tourism. However, you can enjoy a culinary tour by enjoying barking as a typical menu of Bintan Island (Susiana et al., 2019) .

Apart from being a special food for tourists, barking is a daily food for people in the Riau Islands. The barks are obtained by fishermen by picking them up from the beach when the coastal waters recede. Its habitat is in muddy sand (Sianjuntak et al., 2017) . This activity of picking up from the beach is usually done by mothers. It's different if you have to dive to get barking, which is usually done by male fishermen. Based on the results of interviews, the community distinguishes between two types of barking, namely white barks and red barks, or more precisely, white barks and reddish barks. In terms of selling value, the red bark has a higher selling value than the white bark. Red barks reach Rp. 23,000 – Rp. 25,000 per kilogram, while the selling price of white barks from fishermen is Rp. 11,000 – Rp. 13,000 per kilogram. The differentiating factor in the price lies in the taste and quantity of the meat (see Figure 1).

The catch of barking in Bintan is very abundant, even supplying barking needs for the surrounding area, especially Batam. In one day, a fisherman can produce 20 kilograms of bark which is then sold to collectors or *seafood restaurant owners* . The collectors themselves can accommodate up to 100 kilograms of barking from fishermen every day, which is then mostly sold to Batam on request. Transactions in one day on a weekday reach 40 kilograms for one consumer

from Batam. Likewise, the owners of *seafood restaurants* on Bintan Island and its surroundings get barks directly from fishermen, considering that the price difference is quite high if they take them from collectors, reaching Rp. 5,000 per kilogram.

Currently, the barking process is only boiled and served with peanut sauce or chili sauce according to the recipe of each restaurant. There has been no product diversification from barking basic ingredients that have economic value. Whereas in terms of quantity, barking is very abundant on Bintan Island, in addition to the availability of continuous supply every year, supported by the taste aspect, tourists and the public really like it. The characteristics of barking food can only be found in the Riau Islands, especially Bintan Island, which can become an identity that is known nationally and internationally as an attraction for culinary tourism destinations.

The COVID-19 pandemic has had a broad impact on the economic conditions of the entire world community, without exception in Bintan. This diversification of bark products is expected to pave the way for alternative sources of economic income.

From the findings of these problems, the objectives of this community service program in the culinary field are; (1) Equipping the public with basic knowledge of entrepreneurship and product marketing; (2) Train the community to make various processed barks into barking prata and barking brains; and (3) Manufacture of processed drinks. The expected output of this activity is to encourage the community to start a productive economic business. In addition, the diversification of barking products will enrich the variety of processed Gonggong culinary delights and become an attraction for tourists and be able to improve the community's economy.

MATERIALS AND METHODS

This community service program was carried out in Tanjung Talok Village, Teluk Sasah Village, Seri Kuala Lobam District (see Figure 2). Community service activities carried out at this time are a continuation of research activities that have been carried out. Research with the topic of the potential of barking as a culinary destination on the island of Bintan. The results of the research were continued in a community service activity for women's groups in the Tanjung Talok area.

The stages carried out in this series of PkM activities can be seen in Figure 3. Before the activities in Tanjung Talok take place, it begins with preparing the concept of processed food products of barking which will be presented. Some of the principles emphasized in the manufacture of this product are; (1) This product can be adapted easily by the public; (2) The raw materials used can be obtained easily in the surrounding environment; (3) The product has characteristics that are capable of being attractive; (4) Using cheap materials, so as to increase profit margins; and (5) Products can be produced on a household scale. Based on these five principles, it is agreed upon for prata or commonly called Roti Maryam barking, otak-otak barking, and firmament drinks.

Various processed barks are the main choice with consideration of the abundance of raw materials and are Bintan's special foods. Various processed barks have the potential to be excellent for culinary tourism in the Riau Islands and Bintan in particular.

After determining the product to be presented, proceed with compiling a recipe and testing the recipe. Trial or practice of making roti prata (bread Maryam) gonggong, otak-otak barking, and firmament drinks. This trial was carried out in the *kitchen* and *pastry laboratory* of the Culinary Arts Study Program at the Bintan Cakrawala Polytechnic (see Figure 3).

The results of the trial were asked to assess 35 respondents consisting of 10 educational staff, 15 lecturers, and 10 students from the Bintan Cakrawala Polytechnic. Organoleptic test is an assessment of four components, namely; (1) Color; (2) Texture; (3) Aroma; and (4) Taste. The assessment uses a Likert scale of 1-5. The following is the rating scale ;

- 1 = really don't like it
- 2 = don't like
- 3 = neutral
- 4 = like
- 5 = really like

This assessment becomes feedback for the improvement of the quality of the products mentioned above. If the results of the assessment show good numbers, it can be directly practiced in the community. However, if the results of the assessment show bad numbers for certain components of the assessment, it is necessary to improve the recipe and product quality. After the repairs are made, then a reassessment will be carried out by the same respondent, before being applied to the community.

The application of the trial results was carried out in Tanjung Talok, precisely in RT 01 RW 11 Teluk Sasah Village. The target group for this service activity is the Tanjung Talok women's group. After conducting training on making prata barking, brains barking, and horizon drink, as an evaluation material for the achievements of this activity, an assessment was carried out by the training participants. The assessment component includes four aspects of organoleptic testing; (1) Color; (2) Texture; (3) Aroma; and (4) Taste. By using a Likert scale of 1-5.

RESULTS AND DISCUSSION

The determination of processed products such as prata barking, brains barking, and horizon drinks is a series of research activities that have been carried out on the topic of barking as a culinary destination in Bintan. Furthermore, this community service activity involved several lecturers from the Culinary Arts Study Program and students from the Culinary Arts Study Program and the Hospitality Management Study Program.

Before testing the product, the team first compiled a recipe for the three products followed by preparing the raw materials to be processed. The following are the raw materials prepared and the processing process (see Figure 4-7).

The three products that have been produced were then assessed by 35 respondents based on the four components of the organoleptic test. The following are the results of the assessment of 35 respondents who are the academic community of the Bintan Cakrawala Polytechnic; (see Table 1-3)

From the results of respondents' assessments (see Tables 1-3) of the three products that will be tested, they show good values, so they can be directly prepared and disseminated to the community in Tanjung Talok.

This community service activity will begin on April 9, 2021 at RT 01 RW 11 Teluk Sasah Village, with the target group being women. There were 23 participants who attended this training, which were dominated by fisherman housewives.

This activity was started by the opening by the Chairman of RT 01 by Mr. Bahir, then continued by Dr. Hary Jocom, M.Si as the leader of the community service team at the Bintan Cakrawala Polytechnic (see Figure 7). In addition to conveying the intent and purpose of implementing the PKM activity in the manufacture of various processed barks, to equip the community with skills so that they can be used to open household-scale businesses to improve the family economy during the COVID-19 pandemic. At the same time, it was continued by delivering an explanation about the development of entrepreneurship and digital-based promotional models, or what is termed *digital marketing*. Participants are equipped with the basics of entrepreneurship, namely *first*, determine and ensure the product to be sold has advantages over similar products; *second*, determine market segmentation; *third*, ensuring the quality of the products sold, especially food, must pay attention to aspects of hygiene, durability, and presentation; and *fourth*, determine the marketing model, whether conventional or using an internet media *platform*, or a combination of the two models (Horng & (Simon) Tsai, 2010).

The next material continued with a presentation on how to process the barking prata which was delivered by Yudy Sunantri, M.Sc, a lecturer from the D3 Culinary Arts Study Program at the Bintan Cakrawala Polytechnic (see Figure 8). Yudy revealed that the principles that must be followed in preparing food are hygiene factors. The cleanliness of the work environment in the production process will provide added value and must be maintained (Kristiana et al., 2018). A clean environment will affect the taste and consumer confidence (Widjaja et al., 2020). Yudy explained step by step in making prata gonggong, starting from preparing the ingredients to processing the ingredients. Here's how to process and serve the prata gonggong (see Figure 8);

The demonstration of making prata and otak-otak barking was technically assisted by D3 students of the Culinary Arts Study Program at Bintan Cakrawala Polytechnic. On the sidelines of the demonstration, it was filled with a step-by-step explanation of the process of making the barking prata and continued with the barking brains. There are three components that result from prata gonggong, namely; curry sauce, prata with gonggong stuffing, and maryam buns (without gonggong stuffing). As explained above, the prata making method above. In contrast to prata, making otak-otak gonggong is easier because it only processes bark and fish as a binder for barking (see Figure 9) .

After the two gonggong preparations were finished, the participants were given the opportunity to taste them and give an assessment. All participants were given the opportunity to take part in evaluating the processing of prata barking and brains barking. On the next occasion, the participants were asked to participate in the process of making prata gonggong and otak-otak (see Figure 10) .

In addition to the two components of the barking processed dish, the D4 Hospitality Management student at the Bintan Cakrawala Polytechnic served a horizon drink. Each participant was given a recipe for each product, be it otak-otak gonggong, roti prata gonggong, and oceanic horizon drink. It is hoped that they will be able to conduct a trial in their respective homes (see Figure 11) .

In addition to training on how to process various foods made from barks and drinks, the community is taught how to calculate the production cost and selling price of each product. The cost of production of prata gonggong is Rp. 12,000 per portion, with a selling price of Rp. 32,000. So there is a margin difference of Rp. 20,000 per item of prata gonggong. In contrast to the production price of the barking brains, at a cost of Rp 90,500, it can produce 12 portions of barking brains, each portion consisting of 12 barking brains. So the cost of production of one portion of the barking brains is Rp. 7,600 (rounded up). If one portion of gonggong (consisting of 12 brains of barking) is sold at a price of Rp. 20,000, then there is a margin of Rp. 12,400 per portion (contents of 12). Likewise with Horizon drinks, which are relatively easy to produce. The economic calculation of the production reaches Rp. 3,500 per cup. If sold for IDR 5,000 per cup, there will be a margin of IDR 1,500 per cup. All prices that have been calculated are still at a reasonable level and can be reached by the public.

The end of the activity was closed with an evaluation of the entire process of community service activities that had taken place. Each participant was asked to give an assessment based on an organoleptic test that included four aspects as was done during the trial in the *kitchen lab* of the Bintan Cakrawala Polytechnic. In addition, at the end of the questionnaire there are open questions regarding suggestions for the implementation of ongoing community service activities

Participants were very enthusiastic about the implementation of community service activities carried out in RT 01 RW 11 Tanjung Talok, Teluk Sasah Village, because what was practiced was in accordance with the needs of the community. The assessment of the products made showed that the participants were satisfied with the activities that had taken place. Suggestions from all participants hope that there will be similar activities in order to broaden the community's knowledge and experience (see Table 4).

CONCLUSIONS AND SUGGESTIONS

Community service activities by presenting products that can be directly adopted by the community are the heart of PkM itself. The activity of making processed food from barks and drinks is a strategic step in the framework of promoting and enriching Bintan's special food. Gonggong as a typical food of Bintan is not only a food to fulfill physical needs, but contains cultural values in it. Food and culture become a unity that can encourage the development of culinary destinations with regional characteristics (Ellis et al., 2018; Henderson, 2009; López-Guzmán & Sánchez-Cañizares, 2012) . Through this community service activity, it shows that barking can be processed into various products, it will be more attractive to tourists, and strengthen it as a culinary destination typical of Bintan.

Overall, the objectives of the PkM implementation that were designed at the beginning of the activity have been achieved, where the community has been trained on how to make various processed barks, namely prata barking, brains barking, and processed drinks. However, the achievement of building the entrepreneurial spirit of the community in Tanjung Talok is still not fully achieved. Based on the results of monitoring the achievements of the PkM implementation in Tanjung Talok which was carried out on April 15, 2021, of the 23 people who participated in the training, only 13% (3 people) started a business selling otak-otak barking and horizon drinks, although the product market share was still limited to RT 01 neighborhood or nearest neighbor. Marketing is still carried out using conventional methods, namely offering it door to door, not using *digital platforms*. Prata gonggong cannot be sold yet because consumer demand is more for otak-gonggong and firmament drinks. Meanwhile, 87% of the other training participants have not started a business for various reasons, be it limited working capital, time availability, and various other reasons. This finding shows that building the entrepreneurial spirit of the community in Tanjung Talok has not been achieved in its entirety. This becomes a material for evaluation, input, and recommendations for the implementation of community service activities in the future, it is necessary to carry out intensive assistance, through similar programs, especially promotional strategies through conventional and *digital methods*. The COVID-19 pandemic has forced most people to switch to *digital platforms* without exception. Based on these considerations, briefing the community regarding product packaging and marketing is a priority for future programs. In addition, introducing other product innovations based on natural resources around and local wisdom.

In addition, another main point is how to open access or connect the community with the banking world, thereby encouraging financial literacy, building synergy with the industrial world through micro or household-scale fostered partners.

THANK-YOU NOTE

to thank the Bintan Cakrawala Polytechnic for facilitating this community service activity. Thank you to Mr. Bahir as the Head of RT 01 RW 11 Teluk Sasah Village who with open arms accepted the PkM team at the Bintan Cakrawala Polytechnic. We also thank all the people of Tanjung Talok for their hospitality and openness in accepting us.

BIBLIOGRAPHY

- Ellis, A., Park, E., Kim, S., & Yeoman, I. (2018). What is Food Tourism? *Tourism Management*, 68, 250–263. <https://doi.org/10.4324/9780429426100>
- Henderson, JC (2009). Food tourism reviewed. *British Food Journal*, 111 (4), 317–326. <https://doi.org/10.1108/00070700910951470>
- Hornig, JS, & (Simon) Tsai, CT (2010). Government websites for promoting East Asian culinary tourism: A cross-national analysis. *Tourism Management*, 31 (1), 74–85. <https://doi.org/10.1016/j.tourman.2009.01.009>
- Kristiana, Y., Suryadi, MT, & Sunarya, SR (2018). Exploration of Culinary Tourism Potential for Tourism Development in Tangerang City. *Treasures of Science - Journal of Tourism and Culture*, 9 (1). <https://doi.org/10.31294/khi.v9i1.3604>
- López-Guzmán, T., & Sánchez-Cañizares, S. (2012). Gastronomy, Tourism and Destination Differentiation: A Case Study in Spain. *Review of Economics & Finance*, 63–72.
- Manalu, JCL, Lestari, F., & Melani, WR (2015). *The growth pattern of the Gonggong snail (Strombus canarium) in the waters of Penyengat Island, Tanjungpinang City, Riau Archipelago Province*. Raja Ali Haji Maritime University.
- Sianjuntak, HH, Pratomo, A., & Idris, F. (2017). *Confirmation of Kila as an Attractant Gonggong (Case of Local Community Practice in Senggarang Waters)*. King Ali Haji Maritime University.
- Susiana, Apriandi, A., & Rochmady. (2019). Identification of the sex of the barking snail *Strombus* sp. morphologically in the waters of Madung, Tanjungpinang, Indonesia. *Journal of Tropical Marine Science and Technology*, 11 (3), 555–567.
- Viruly, L. (2011). *The Utilization of Gonggong Sea Snails (Strombus canarium) from Bintan Island-*

Riau Islands for Natural Seasoning . Bogor Agricultural Institute.

Widjaja, DC, Jokom, R., Kristanti, M., & Wijaya, S. (2020). Tourist behavioral intentions towards gastronomy destination: evidence from international tourists in Indonesia. *Anatolia* , 31 (3), 376–392. <https://doi.org/10.1080/13032917.2020.1732433>

ATTACHMENT



Source: Research Doc, 2012

Figure 1. White Gonggong (left) and Red Gonggong (right)



Source: Google Maps, 2021

Figure 2. Location of Community Service in Tanjung Talok Village, Teluh Sasah Village

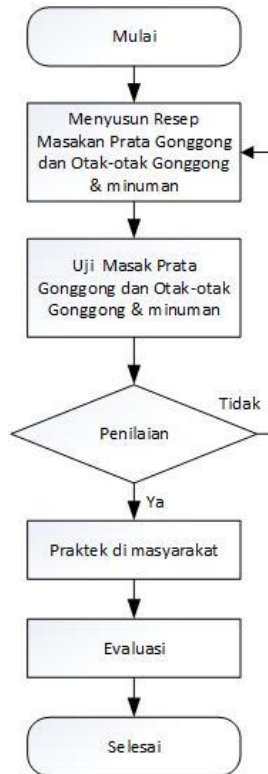


Figure 3. Flow of Community Service Activities



Figure 4. Prata Gonggong Trial in Lab *Kitchen*



Figure 5. Trial of Gonggong Brains in Lab *Kitchen*



Figure 6. Experimental Results of Prata Gonggong (left) and Brains Gonggong (Right)



Figure 7. Trial Results of Oceanic Horizon Drinks

Table 1. Respondents' Assessment of Prata Gonggong Products

Assessment Aspect	Love it	Like	Neutral	Do not like
Color		51%	49%	
Texture		61%	26%	14%
Aroma		86%	14%	
Flavor	17%	77%	6%	

Table 2. Respondents' Assessment of Prata Gonggong Products

Assessment Aspect	Love it	Like	Neutral
Color		26%	74%
Texture		54%	46%
Aroma		63%	37%
Flavor	54%	77%	

Table 3. Respondents' Assessment of Horizon Drinks

Assessment Aspect	Love it	Like	Neutral
Color		77%	23%
Texture		63%	37%
Aroma		89%	11%
Flavor	26%	74%	



Figure 7. Opening and Presentation on Entrepreneurship Potential in a Pandemic Period



Figure 8. Training on Making Prata Gonggong by Yudy Sunantri



Figure 9. Demonstration of Making Prata and Gonggong Brains by D3 Culinary Arts Students



Figure 10. Participation of Participants in Making Prata & Brains of Gonggong



Figure 11. Brochure Recipe for Otak-otak and Prata Gonggong Bread and Oceanic Cakrawala Drinks

Table 4. Community Assessment of Gonggong Processed Food Products and Horizon Drinks

Assessment Aspect	Really like	Like
Color	87%	13%
Texture	65%	35%
Aroma	43%	57%
Flavor	96%	4%