Vol 01 2022, pp 16-23 e-ISSN: XXXX-XXXX

DOI: https://doi.org/10.54482/ATMOSPHERE/



NUGTIN MOZAHOS: NUGGET IKAN PATIN AN ALTERNATIVE FOR THOSE WHO DISLIKES FISH IN SUCH A ENJOYABLE WAY AND HEALTHY

Eko Nevriansyah, Deanaldi septama^a, Muhammad Ruzlan Syahputra^b, Melia Wulandari^c, Yuliani^d, Lise Asnur^e, Fitrah Mey Harmi Siregar^f, Jumasari Siregar^g

Magister Programme of Biochemistry, Postgradute, Universitas De La Salle, Philippines

^aDepartement of Management English Education, Faculty of Language and Art, Universitas Negeri Padang,

JL. Prof. Dr. Hamka, Air Tawar Barat, Padang Utara, 25171 Indonesia

^bDepartement of Visual Design, Faculty of Language and Art, Universitas Negeri Padang, JL. Prof. Dr. Hamka, Air Tawar Barat, Padang Utara, 25171 Indonesia

^cDepartment of Well-being Family Education, Faculty of Hotel and Tourism, Universitas Negeri Padang, JL. Prof. Dr. Hamka, Air Tawar Barat, Padang Utara, 25171 Indonesia

^dDepartment of Management English Education, Faculty of Language and Art, Universitas Negeri Padang, JL. Prof. Dr. Hamka, Air Tawar Barat, Padang Utara, 25171 Indonesia

^eDepartment of of Hotel Management, Faculty of Hotel and Tourism, Universitas Negeri Padang, JL. Prof. Dr. Hamka, Air Tawar Barat, Padang Utara, 25171 Indonesia

^fMagister Programme of Educational Chemistry, Postgradute, Universitas Negeri Padang, JL. Prof. Dr. Hamka, Air Tawar Barat, Padang Utara, 25171 Indonesia

^gMagister Programme of Educational Chemistry, Postgradute, Universitas Negeri Medan, JL. William Iskandar Ps. 5 Medan Estate, North Sumatera, 20221 Indonesia

*Coresponding email: denaldiseptama@gmail.com

ABSTRACT

Indonesia is rich in natural resources. One of them is Pangasius, also known as "Ikan Patin" in Indonesia, a freshwater fish. Ikan Patin has a high potential for cultivation in Indonesia. In 2011, the amount of Ikan Patin production was 227.267 tons, contributing 16.11 percent to global Ikan Patin production. Ikan Patin, as a daily consumption fish, contains calorie and protein, low sodium, calcium, zinc, and mineral, all of which are healthy and make this type of fish easily digestible by the human body. Ikan Patin can also help to prevent cardiovascular disease by lowering cholesterol, preventing a heart attack, and stroke. There is a large community of Ikan Patin cultivators in Pulau Gadang Village, Indonesia. Fried, curry, and smoked Ikan Patin are the most common type of Ikan Patin processed products. From those common methods of processing Ikan Patin, it can be transformed into one of the most well-known types of food in the world, which is nugget. Nuggets are typically made from chicken or beef meat, which is what distinguishes this product. Nugget Ikan Patin, also known as Nugtin Mozahos, the brand of this product, is made from combination of Ikan Patin meat, carrots, and mozzarella cheese. The origins of this innovation were aimed at children who dislike fish but enjoy cheese and nuggets. This product's main ingredients are Ikan Patin meat, carrot, egg, flour, and a special blend of spices that make it very tasty when served with honey sauce. Consuming this product can provide a lot of nutrition, especially for those who dislike both fish and carrots, which can be compared to the nutrition that comes from chicken and beef meat.

Keywords: Healthy; Ikan Patin; honey sauce

1. INTRODUCTION

1.1 Background

Indonesia is so rich in natural resources, ranging from plantations, rice fields, forests and even waters Natural resources in Indonesia are not limited to their biological wealth [1,2,3]. In addition, Indonesia also has <u>land</u> fertile and well used for various types of plants. The territorial waters that reach 7.9 million km2 also provide enormous natural potential [4,5].

One of the products of Indonesian waters is fish, both fish from salt waters and fresh waters[6,7]. One of the leading freshwater fish in the country is Catfish. This fish is very potential to be cultivated in Indonesia. It was recorded that in 2011, catfish production in Indonesia reached 229,267 tons with a contribution of 16.11% of world catfish production[8,9]. As a consumption fish, catfish meat has a high enough calorie and protein content, the taste of the meat is also tasty[10,11]. This fish meat is low in sodium so it is suitable for people who are on a salt diet[12, 13]. In addition, fish meat is easily digested by the intestines and contains calcium, iron and minerals which are very good for health[14,15]. The nutritional content of catfish is 68.6% protein, 5.8% fat, 3.5% ash and 51.3% water[16].

In addition, as a fish kconsumption, small catfish (5-12 cm) are generally used as ornamental fish[17]. This fish is often found in large and watery rivers. Catfish often hide in burrows on the banks of rivers or are found in certain locations in the river, such as deep lubuk (river valleys)[18]. Amazingly, they are able to survive in bad waters. In Indonesia, the distribution of this fish is quite wide, such as in the Musi River, Batanghari, Indragiri, Brantas, Bengawan, Mahakam, Kapuas and other major Indonesian rivers.

In Pulau Gadang Village, there are many people who cultivate catfish. This fish is processed into delicious dishes such as fried balado, curry, and smoked fish. But not everyone likes this scaly fish. It was against this background that we took the initiative to make catfish nuggets with a mixture of carrots filled with a mixture of Mozzarella cheese[19,20]. We named this product Nugtin Mozahos. In addition to the simple and practical way of making this product, this product is prepared especially for children. Patin fish nuggets are made from a mixture of processed catfish, carrots, eggs, flour and other spices which are then made into various shapes then filled with mozzarella cheese and coated with breadcrumbs and after being fried combined with honey sauce[21,22]. This product certainly has a difference with other products because this product has a different taste image, namely catfish nuggets that are given mozzarella and honey sauce which makes the taste of the nuggets different from the others. By giving this honey sauce it makes this product delicious and has a spicy sweet savory taste in this product of course[23]. By consuming these nuggets we get nutrients from fish as well as carrots. And these nuggets can be a solution for those who don't like to eat catfish and carrots. It is hoped that people will prefer to consume fish and carrots which are rich in nutrients than consuming beef and chicken. So that people can switch to consuming healthy foods, in order to increase body immunity, especially during the current COVID-19 pandemic[24].

2. LITERATURE REVIEW

2.1 General Condition of Business Environment

As we often see, nuggets in Indonesia are generally made from processed ingredients such as beef and chicken, while the types of processed ingredients made from fish are difficult to find[25]. We use catfish and carrots because the processed ingredients used have many health benefits. The benefits of catfish are that it can prevent cardiovascular disease, reduce cholesterol content, prevent coronary heart disease, help build muscle, maintain bone health, increase brain performance, increase white blood cell function, activate the pineal gland in humans, help increase platelets, regulate electrolyte levels in the body, and prevent stroke. While carrots have health benefits that can improve eye health, balance blood sugar, maintain weight and stable blood pressure,

2.2 Natural Resources Potential and Market Opportunities

For the acquisition of raw materials we take from Pulau Gadang Village, Kampar, Riau. Because the village has a lot of catfish cultivation developed by the surrounding community. That way we also help develop the community's catfish business by buying raw materials directly from them. The competitive situation for initial marketing may not be too serious a problem because Nugtin Mozahosthat we produce does not yet exist in West Sumatra, especially the city of Padang. So we have a pretty big Market Opportunity in selling this Nugtin Mozahos[26].

2.3 Business Economic Analysis

2.3.1 Targets and Market Segments

The expected targets are UNP students and children, then Nugtin Mozahos also has the potential to be sold to the surrounding community, both adults and parents. Nugtin Mozahos can also be ordered for important events such as social gathering, meetings, etc.

2.3.3 Marketing and Promotion Strategy

The Nugtin Mozahos Marketing Strategy that we use is as follows

Table 2 Promotion Strategy

Strategy	Activity
Direct Selling	We will do direct sales in the campus environment and the
	general public. When there are events such as graduations,
	inauguration or exhibitions, we will open booths around the
	campus. As for the general public, we will open booths in
	crowded places such as GOR H Agus Salim Padang, Car
	Free Day and the Padang beach area.

Internet Marketing	We will sell our products through social media with a									
	personal website, so that consumers can check prices, check									
	product quality, and can make purchases directly on our									
	social media. Payment is made by COD. These social media									
	such as Facebook, Instagram, WhatsApp, and so on, so that									
	marketing is wider.									
Reseller/dropshipper	We will also spread our business by working with resellers									
	and dropshippers to sell products. With a system of recruiting									
	new resellers/agents in an effort to expand promotions and									
	increase the number of sales. Besides that, we can also work									
	together with stalls or canteens by entrustingNugtin									
	Mozahosin the stall or canteen, with the same profit sharing.									

2.3.4 Business Environment Analysis (SWOT)

STRENGTH										
Product: Practical to eat.	Selling price : Relatively	Service : Clean place of								
Made with natural	cheap price, but good quality.	sale, and hygienic								
ingredients and no	Selling price is more	production process.								
preservatives. Production	economical if purchased in	There is a pre-order								
can be stored more than 1	Frozen form (Frozen)	system that is given to								
month		consumers via social								
		media								
	WEAKNESS									
Product : The resulting	Formal Legal: Not yet have a	Publication: Limited								
product is easy to imitate	Patent, making it difficult	funds needed to promote								
	when marketing	the product								
	OPPORTUNITIES									
Market opportunity : The h	abit Access: Nugtin Mozahos	s Update: Creating new								
of consumers looking	for make sales by online so as	s processed snacks made								
delicious snacks that are che	eap. to provide convenience	from catfish and								
The habits of the your	ger for consumers.	carrots.								
generation follow the trend	of									
processed unique snac	eks.									
KMost of the your	ger									

generation now like snacks that		
are practical and easy to serve.		
	THREATS	

Competition: There are people who are less interested in snacks made from fish and people's consumption stylesat is currently dominated by modern food and imported materials.

3. EXPERIMENTAL

Some of the steps that must be taken in business preparation are as follows: Conduct a market review or analysis before making an effort to ascertain the current condition of the target market. Start preparing everything related to production activities. Calculate the details of production costs in and out. Cooperate in carrying out promotional activities and division of promotional tasks [27. Trying to cooperate with agencies related to product marketing and production costs.

3.1 Promotion

The promotion is carried out in a strategic, crowded place in West Sumatra, especially in the city of Padang. Promotion is also done through the network social like Facebook, instagram & WhatsApp Conduct outreach to the public for product introduction.

3.2 Implementation of Program Activities

This activity will have several stages that must be carried out, including: Consultation to the supervisor, aims to discuss matters related to product manufacture, cost analysis and others[28]. Market analysis, aims to determine the market conditions of the products to be sold. Material purchases are made directly to the supplier area and other additional materials can be obtained through the market. Designing packaging, unique packaging aims to attract the attention of consumers to buy this product[29]. Carrying out production, production is carried out at the production house and is carried out periodically. Promotions are carried out around the Padang State University campus, markets and crowded places. Doing marketing, marketing is done in West Sumatra, especially in the city of Padang. Evaluation aims to analyze what things need to be improved and improved. Making a Business Progress Report, aims to find out the extent of the development of this business and the benefits obtained[30]. Making a Business Progress Report, aims to find out the extent of the development of this business and the benefits obtained.

4. RESULTS AND DISCUSSION

4.1 The Process of Making Nugtin Mozahos

Making Mozzarella Catfish Nuggets: Shredded carrots, puree the spices that have been provided. Blend catfish meat until smooth. Combine carrots, ground spices, catfish meat, tapioca flour, flour and eggs. Shape the nuggets as desired and add mozzarella cheese to it. Steam the dough for 30 minutes, remove it from the steamer and let it cool. Beat the eggs and add a little salt. Dip the dough in the egg and add the breadcrumbs. Fry the dough until cooked and golden yellow. Drain well. Honey Sauce Making. Finely chop the garlic and slice the onion. Prepare a frying pan and heat it up and add a little oil. Saute the garlic until fragrant. Then add the onions. Add tomato sauce, honey, sugar and salt to taste. Cook until it boils while continuing to stir so it doesn't burn

4.1 Schedule of activities

		Month/Week 2020															
No	ACTIVITY	1			2			3			4						
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Business																
	preparation																
2	Promotion																
3	Business execution																
4	Consumer																
	education																
5	Report generation																
6	Final evaluation																

5. CONCLUSION

The origins of this innovation were aimed at children who dislike fish but enjoy cheese and nuggets. This product's main ingredients are Ikan Patin meat, carrot, egg, flour, and a special blend of spices that make it very tasty when served with honey sauce. Consuming this product can provide a lot of nutrition, especially for those who dislike both fish and carrots, which can be compared to the nutrition that comes from chicken and beef meat.

ACKNOWLEDGEMENTS

Authors may acknowledge to any person, institution or department that supported to any part of study.

REFERENCES

- [1] Zafar, M. W., Zaidi, S. A. H., Khan, N. R., Mirza, F. M., Hou, F., & Kirmani, S. A. A. (2019). The impact of natural resources, human capital, and foreign direct investment on the ecological footprint: the case of the United States. Resources Policy, 63, 101428.
- [2] Gaveau, D. L., Locatelli, B., Salim, M. A., Yaen, H., Pacheco, P., & Sheil, D. (2019). Rise and fall of forest loss and industrial plantations in Borneo (2000–2017). Conservation Letters, 12(3), e12622.
- [3] Oktavia, B., Tilla, M., Nasra, E., Zainul, R., & Amin, M. (2021, February). Activation and Modification of Natural Silica for Anion Adsorbent. In Journal of Physics: Conference Series (Vol. 1788, No. 1, p. 012013). IOP Publishing. DOI:10.1088/1742-6596/1788/1/012013
- [4] Mohd Yazid, S. N. A., Md Isa, I., Ali, N. M., Hashim, N., Saidin, M. I., Ahmad, M. S., ... & Zainul, R. (2020). Graphene/iridium (III) dimer complex composite modified glassy carbon electrode as selective electrochemical sensor for determination of hydroquinone in real-life water samples. International Journal of Environmental Analytical Chemistry, 1-18. https://doi.org/10.1080/03067319.2020.1758079
- [5] Zainul, R., Abd Azis, N., Md Isa, I., Hashim, N., Ahmad, M. S., Saidin, M. I., & Mukdasai, S. (2019). Zinc/aluminium—quinclorac layered nanocomposite modified multi-walled carbon nanotube paste electrode for electrochemical determination of bisphenol A. Sensors, 19(4), 941.
- [6] Nurashikin, A. A., Isa, I. M., Hashim, N., Ahmad, M. S., Zainul, R., Siti, N. A. M. Y., ... & Mukdasai, S. (2020). Synergistic Effect of Zinc/Aluminium-Layered Double Hydroxide-Clopyralid Carbon Nanotubes Paste Electrode in the Electrochemical Response of Dopamine, Acetaminophen, and Bisphenol A. International Journal of Electrochemical Science, 15(8), 9088-9107.
- [7] Dinata, A. A., & Zainul, R. (2020). Development of Discovery Learning Based E-Module on Buffer Solution Topic for Class XI Senior High School (SMA/MA). Edukimia, 2(1), 6-11. DOI: https://doi.org/10.24036/ekj.v2.i1.a108
- [8] Szejda, K., Bryant, C. J., & Urbanovich, T. (2021). US and UK consumer adoption of cultivated meat: a segmentation study. Foods, 10(5), 1050.
- [9] Cloutier, C., & Langley, A. (2020). What makes a process theoretical contribution? Organization Theory, 1(1), 2631787720902473.
- [10] Higgins, K. A., & Mattes, R. D. (2019). A randomized controlled trial contrasting the effects of 4 low-calorie sweeteners and sucrose on body weight in adults with overweight or obesity. The American journal of clinical nutrition, 109(5), 1288-1301.]
- [11] Michel, F., Hartmann, C., & Siegrist, M. (2021). Consumers' associations, perceptions and acceptance of meat and plant-based meat alternatives. Food Quality and Preference, 87, 104063.
- [12] Ahmad, M. S., Isa, I. M., Hashim, N., Saidin, M. I., Suyanta, S., Zainul, R., ... & Mukdasar, S. (2019).
 Zinc layered hydroxide-sodium dodecyl sulphate-isoprocarb modified multiwalled carbon nanotubes as sensor for electrochemical determination of dopamine in alkaline medium. International Journal of ELECTROCHEMICAL SCIENCE, 14, 9080-9091. doi: 10.20964/2019.09.54
- [13] Sharif, S. N., Hashim, N., Isa, I. M., Bakar, S. A., Saidin, M. I., Ahmad, M. S., ... & Zainul, R. (2021). Chitosan as a coating material in enhancing the controlled release behaviour of zinc hydroxide nitrate–sodium dodecylsulphate–bispyribac nanocomposite. Chemical Papers, 75(2), 611-627.
- [14] MadJin, H. M., Hashim, N., Isa, I. M., Hussein, M. Z., Bakar, S. A., Mamat, M., ... & Zainul, R. (2020). Synthesis and characterisation of zinc hydroxides nitrates—sodium dodecyl sulphate fluazinam nano hosts for release properties. Journal of Porous Materials, 27(5), 1467-1479. https://doi.org/10.1007/s10934-020-00925-w
- [15] Rais, N. S. M., Isa, I. M., Hashim, N., Saidin, M. I., Yazid, S. N. A. M., Ahmad, M. S., ... & Mukdasai, S. (2019). Simultaneously Determination of Bisphenol A and Uric Acid by Zinc/Aluminum-layered Double

- Hydroxide-2-(2, 4dichlorophenoxy) Propionate Paste Electrode. International Journal of ELECTROCHEMICAL SCIENCE, 14, 7911-7924.
- [16] Fatimah, S., Syafrini, D., & Zainul, R. (2021). Rendang lokan: history, symbol of cultural identity, and food adaptation of Minangkabau tribe in West Sumatra, Indonesia. Journal of Ethnic Foods, 8(1), 1-10.
- [17] Engle, C. R., Hanson, T., & Kumar, G. (2021). Economic history of US catfish farming: Lessons for growth and development of aquaculture. Aquaculture Economics & Management, 1-35.
- [18] Pandey, P., Chauhan, P., Bhatt, C. M., Thakur, P. K., Kannaujia, S., Dhote, P. R., ... & Aggrawal, S. P. (2021). Cause and process mechanism of rockslide triggered flood event in Rishiganga and Dhauliganga River Valleys, Chamoli, Uttarakhand, India using satellite remote sensing and in situ observations. Journal of the Indian Society of Remote Sensing, 49(5), 1011-1024.
- [19] Mohd Yazid, S. N. A., Md Isa, I., Ali, N. M., Hashim, N., Saidin, M. I., Ahmad, M. S., ... & Zainul, R. (2020). Graphene/iridium (III) dimer complex composite modified glassy carbon electrode as selective electrochemical sensor for determination of hydroquinone in real-life water samples. International Journal of Environmental Analytical Chemistry, 1-18.
- [20] Kharisma, V. D., Agatha, A., Ansori, A. N. M., Widyananda, M. H., Rizky, W. C., Dings, T. G. A., ... & Zainul, R. (2022). Herbal combination from Moringa oleifera Lam. and Curcuma longa L. as SARS-CoV-2 antiviral via dual inhibitor pathway: A viroinformatics approach. Journal of Pharmacy and Pharmacognosy Research, 10(1), 138-146.
- [21] Sharif, S. N. M., Hashim, N., Isa, I. M., Bakar, S. A., Saidin, M. I., Ahmad, M. S., ... & Zainul, R. (2021). Polymeric Nanocomposite-Based Herbicide of Carboxymethyl Cellulose Coated-Zinc/Aluminium Layered Double Hydroxide-Quinclorac: A Controlled Release Purpose for Agrochemicals. Journal of Polymers and the Environment, 29(6), 1817-1834.
- [22] Kaur, M., Aggarwal, P., & Kumar, V. (2021). Effect of chilli varieties and storage conditions on quality attributes of honey chilli sauce: A preservation study. Journal of Food Processing and Preservation, 45(9), e15734.
- [23] Otterbring, T. (2021). Peer presence promotes popular choices: A "Spicy" field study on social influence and brand choice. Journal of Retailing and Consumer Services, 61, 102594.
- [24] Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. Higher Education for the Future, 8(1), 133-141.
- [25] Galanakis, C. M., Aldawoud, T., Rizou, M., Rowan, N. J., & Ibrahim, S. A. (2020). Food ingredients and active compounds against the coronavirus disease (COVID-19) pandemic: A comprehensive review. Foods, 9(11), 1701.
- [26] Hossain, A., Hossain, M. S., Munshi, M. K., & Huque, R. (2021). Detection of species adulteration in meat products and Mozzarella-type cheeses using duplex PCR of mitochondrial cyt b gene: A food safety concern in Bangladesh. Food Chemistry: Molecular Sciences, 2, 100017.
- [27] Mandar, S., & Zainul, R. (2019). Sintesis dan Karakterisasi Nano ZnO Doping CU. Chemistery Journal of State University of Padang, 8(1), 20-23. DOI: https://doi.org/10.24036/p.v8i1.104122
- [28] Garina, E. P., Kuznetsov, V. P., Garin, A. P., Romanovskaya, E. V., & Andryashina, N. S. (2018, April). Increasing the complexity of the product manufacture: assessment of trends and prospects of the process. In International Conference Project "The future of the Global Financial System: Downfall of Harmony" (pp. 748-756). Springer, Cham.
- [29] Almasi, H., Jahanbakhsh Oskouie, M., & Saleh, A. (2021). A review on techniques utilized for design of controlled release food active packaging. Critical reviews in food science and nutrition, 61(15), 2601-2621.
- [30] Hoffmann, H. (2019). Introduction to the 2019 Progress Report: Building Communities. SMPTE Motion Imaging Journal, 128(8), 12-12.