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Variant Flavors Innovation Clorot with its Making Techniques as an Effort to Develop Products in Purworejo

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Abstract. The purpose of this research is to Purworejo's traditional snacks, which are highlighted by making techniques, innovating flavors and highlighting them with interest so that they are in demand by all groups and become souvenirs from Purworejo. The method used is research and development. The procedure used is 4D (Define, Design, Develop, Disseminate). This research was conducted in several stages, namely 1). determine the recipe used. 2). Innovating recipes according to the flavor variants to be made. 3). Developing, testing was carried out by 2 experts in the culinary field and 19 students of Family Welfare Education, UNY Postgraduate Program. 4). dissemination is carried out by the wider community with product exhibitions. The results concluded that the products produced from this study were better than those in the market and were in great demand by the public at all levels in terms of taste, shape, texture, aroma.

Keywords: variant flavors, clorot, develop products

1. Introduction

Every region in Indonesia generally has special food or snacks that only exist in the area and is not owned in other areas. One of the typical market snacks is clorot which originates from Purworejo. Purworejo is a regency in Central Java bordering Wonosobo and Magelang regencies in the north, Kebumen regency in the west, Kulon Progo (DIY) regency in the east and Indian Ocean in the south.

If it ends up in Purworejo, it feels incomplete if you haven't tasted the distinctive taste of Purworejo. Clorot is a traditional snack that has a chewy texture like *jenang*. Clorot is made from rice flour, brown sugar, coconut milk, salt, and pandanus. Clorot is uniquely packaged with a container made of yellow *Janur* shaped like a trumpet and a way of processing by steaming. In addition to its unique packaging, clorot also has a unique way to consume it by pushing the bottom of the container made of it into. For those who have never consumed it must be consumed by opening the coil (the Javanese language) [1].

Clorot is served in celebration events or served on holidays such as Eid. Clorot, which is sold in Purworejo, generally has a taste that is sweet from brown sugar and light brown with a chewy texture. Demand by teenagers [2]. For clorot to be popular among adolescents, the authors innovate variants with ingredients that are easy to find in the region such as pandan flavor variants, clorot with a topping/coconut variant with a topping of jackfruit. By innovating and packaging attractively, it is expected that clorot can be sought for by all people, especially among adolescents, maintaining clorot as a typical regional food and can be a typical gift from Purworejo, Central Java [3].



1.1. Making clorot innovations

Innovation is a new invention of an existing product which is then improved and developed so that it becomes a new product that is more attractive or selling high. This innovation is very important to be done in the market snack to penetrate the market in all circles. With the innovation clorot with various flavors and packaged with interesting, it is hoped that it can be a favorite gift from Purworejo area [4].

1.2. Materials For Making Clorot

Clorot is a traditional Puworejo traditional snack made from basic ingredients of rice flour, coconut milk, and brown sugar. The ingredients for making the clorot are very easy to find at an affordable price [5].

Table 1. Basic Formula Clorot

Ingredients	Total
Rice Flour	125 g
Starch	50 g
Sugar	175 g
Coconut Milk	400 mL
Water	100 mL
Pandan Leaves	2 pieces
Salt	¼ tsp

(femina magazine 1 recipe for 16 clorot)

1.3. Clorot Innovation



Clorot which is widely found is clorot which has the characteristic sweet taste legit. Clorot innovation is needed to maintain the existence of clorot as Purworejo's special food in order to survive with other traditional snacks. Besides that, clorot innovation is expected to attract consumers to be used as souvenirs from Purworejo. Clorotis innovated in terms of taste and packaging. The clorot flavor variants are pandanus, coconut, and jackfruit.





1.4. Making Techniques

1.4.1. The technique of making a container clorot

The uniqueness of the clorot is in the container. The container of the clorotis made from coconut which is shaped like a trumpet [6]. The tool needed for the clorot shape is the knife. The following are ways/techniques for making color containers:



Tabel 2. The technique of making a container clorot

	Step 1		Step 4
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	Step 2		Step 5
	Step 3		Finish

1.4.2. Clorot Making Techniques

Table 3. Clorot making techniques

Step	
1. Mix flour and starch.	
2. Mix the flour and all the ingredients and mix well and put it in the mold from the pan. Need patience and patience in pouring the mixture into the container. Because it can be a hollow container resulting in liquid dough that will run out. So it needs to be checked every 5 minutes to make sure the dough is in good condition.	
3. Steam for 35 minutes then lift then drain.	

1.5. Level Evaluation Model

To find out whether the results of making innovations clorot are in line with expectations, it can be evaluated using a four-level evaluation model. The four levels are Level 1 Reaction: Evaluate the consumer's reaction if there is a variant of the taste in the market. Level 2 Learning, evaluating the results of trials from making innovations highlight flavors. Level 3 Behavior, evaluating how the response in the market to innovation results clorot which comes with various flavors. Level 4 Outcomes, the expected end result after the innovation clorot and attractive packaging improvements are expected to lift the clorot existence in the market and make it highlight as a typical souvenir of Purworejo.

1.6. Model 4 D

In this study, the method used is research and development. This research method is used to produce certain products and test the effectiveness of these products. To be able to produce a product used research that is needs analysis and to test the effectiveness of these products in order to be useful for the community, therefore research is needed to test the effectiveness of these products. So research and development are longitudinal.

The model which is a 4 D model (Define, Design, Develop and Disseminate) [7]. The aim of Define is to determine the goal of innovation. The objectives of Design and redesign are highlighted as innovations. The purpose of developing it after being processed and developed is a profitable problem for experts in the food sector. The purpose of Disseminate is after being carried out by experts in catering and student cooking.

The study was conducted using acceptance and sensory test sheets. The product acceptance test sheet is given to the panelists when they will conduct product acceptance tests by providing product samples. Each product has its own characteristics, from taste, color, texture, aroma, to presentation. The following are some forms that will be used to pierce food products from the initial experiment to the final trial (preference test), namely forms for the sensory testing phase, sensory test forms for validation and II to determine the acceptance tense performed by the expert and the forms for sensory testing for panelists.

2. Method

This study uses 2 methods, the first method uses the Four Level model, namely Level 1. The reaction, Level 2. Learning, Level 3 Behavior, and Level 4. Results. This model is used to see the achievement of success in making variants clorot with their manufacturing techniques. This research was carried out in August 2018 in Santren village, Sleman Regency, DIY. Second is the Research and Development Method with a descriptive approach oriented to product development using the 4D Model namely Define, Design, Develop, and Disseminate. This research was conducted in March 2018 at Yogyakarta State University. The population of this study was 8 S2 students of Family Welfare Education, Cooking School Study Program, 2 in the catering sector and the method used was the study of literature, articles and websites. For data analysis techniques using P%.

3. Result and Discussion

Organoleptic test was conducted twice to obtain maximum product results. The results of the first organoleptic using the basics recipe obtained taste 65%, texture 60%, shape 75% and color 70%. Basic on the of the study indicate that: in the define stage, the right recipe as the basic formula for making clorot.

Table 4 .Innovation Formula Clorot

Ingrindients	Total
Rice Flour	75 g
Starch	50 g
Brown Sugar	200 g
Coconut Milk	250 mL
Water	100 mL
Pandan Leaves	2 pieces
Salt	¼ tsp

(For 13 clorot)

After conducting an organoleptic test, the author made a slight change in the recipe to get the characteristics of the product accordingly. The recipe is the adjusted to each variant clorot. Basically everything uses the same recipe but for original clorot “juruh” is added to the top of the highlighted surface, juruh is sweet, thick coconut milk. For clorot pandan, add pandan essence 1g at 1 recipe used. While for coconut flavor, the water in the recipe was replaced with coconut water and added 200 g of young head meat cut into small pieces to add to the image of taste. Jackfruit clorot also uses the same recipe and added 200 g jackfruit which has been cut into small pieces.

Before the product is introduced to the wider community first on the second organoleptic test multiply to the PKK lecturers and students after the UNY graduate, organoleptic results are as follows. 1) Define good category with presentations 80 %. 2) Good Category Design with 80% presentation. 3) Develop a good category with 85% presentation. After the recipe has been reclassified and declared eligible to be tested to lecturers in the field of culinary experts and students. 4) Disseminate, the results of the assessment of 2 lecturers in the field of culinary experts and students for: a) The smell of good category with 80% presentation, the aroma produced by the clorot variant was felt. b) Good category texture with 83% presentation. The processed texture of the variant is soft, smooth and not too hard. c) Good category color with 84% presentation. In terms of the color, the variant of the jackfruit has a less brown color so it is a bit pale. d) Good category with 85% presentation. In terms of taste, clorot has the characteristics of savory sweetness that is produced from coconut milk and sugar.

Product that has undergone limited scale panelist testing will enter the product exhibition stage that is carried out for the general public through exhibitions held twice on the 4th at the Yogyakarta State University GOR page and May 16 2018 at the Postgraduate Building In Yogyakarta State University. The products provided are 50 products. Based on the results of the study using the Four Level Model shows that: 1) Level 1 Consumer reaction when knowing the flavor variant innovation is 70%. 2) Level 2 Learning, evaluation of trial results from making innovations clorot flavors by 75% This is because each flavor has a different dose of ingredients. 3) Behavior, the results of evaluating how consumer responses to innovation results are present with various flavors of 85%. Level 4- Results, the expected result after the innovation clorot and attractive packaging improvements are expected to lift the clorot existence in the market and make it clorotas a typical gift of Purworejo by 85%.

4. Conclusion

Consumers show that the average adult is less interested because young people are less interested, because in terms of packaging and feeling less attractive and varied. This clorot innovation is expected to be able to be liked by all people as well as clorot innovations that also make it longer for the expiration period compared to the existing market products. With this clorot innovation, it is expected that clorot can be liked by all circles and packaged as well as possible so that it can be the choice of typical souvenirs of Purworejo.

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