

Development of Oyster Mushroom Siopao

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Abstract – Since many Filipinos love eating bread and pastry like siopao, and bread itself has many benefits for the health, combining it with a very healthy and nutritious filling. The proponents decided to come up with a product that they know will be suitable to the target consumers. The proponents present the “MUSHROOM SIOPAO”, Siopao with Mushroom as its main filling for which mushroom gives the body more nutrients and lowers the risk from getting calories and prevents some illnesses. Mushroom Siopao will also open doors to job opportunities for the people which can decrease poverty rate in the community. Majority of the respondents describe the appearance of the Oyster Mushroom Siopao golden brown. The focus of this study is to develop an Oyster Mushroom Siopao using mushroom as the main ingredient of the filling. Specifically, the study sought to answer the following questions: 1.) To identify sensory characteristics of Oyster Mushroom Siopao in terms of a) appearance; b.) aroma; c.) taste; and d.) texture. 2.) To know what the most preferred sample for Oyster Mushroom Siopao is and 3.) To determine the acceptability level of the Oyster Mushroom Siopao. The study was only delimited to the sensory characteristics, product preference, and the level of acceptability of the Oyster Mushroom Siopao for the calendar year 2017 to 2019. The study conducted a descriptive research method. The study tapped 30 BS Food Service Management students and faculty from Camarines Sur Polytechnic Colleges using purposive sampling. All the Mushroom Flavor respondents described the aroma moderate while most respondents of Mushroom-Chicken Flavor describe the aroma moderate. Majority of the respondents for both flavors describe the taste pronounced and the texture firm. The most preferred flavor for the Oyster Mushroom Siopao is the Mushroom-Chicken Flavor. The development of Oyster Mushroom Siopao product is acceptable to the respondents. The respondents recommend that there is still a room to improve the product for excellence and to implement an Oyster Mushroom Siopao production that can be sold by the Camarines Sur Polytechnic Colleges as income generating project.

Keywords – Oyster mushroom, product acceptability, product development, siopao

INTRODUCTION

In the Philippines, entrepreneurship is viewed as important to empowering the poor, enhancing production, and as an impetus to innovation. The 1987 Philippine Constitution recognizes entrepreneurship as an engine of economic growth. Article XII Section 1 highlights the role of private enterprises in supporting equitable distribution of income and wealth, sustaining production of goods and services, and expanding productivity, therefore raising the quality of life [1].

Entrepreneurship is more than just an economic term Filipino or Pinoy makers, who take delight in the — it is a way of thinking. Creating jobs, empowering thought that their baked creations care for their bodies people, and giving individuals access to better lives for and somehow lift their spirits. In fact, any true-blue themselves and their children is a wonderful gift. Today, Pinoy should be able to recall a morning of eating hot it has become a dynamic, developing part of the economy pandesal with his or her family, an afternoon of eating promoting inclusive growth. Entrepreneurship is a way of siopao with friends, or the surprise of opening his or inspiring creative individuals to pursue opportunities her lunch box at school and seeing a large, puffy, despite its risks. Although rice makes up the main meals creamy ensaymada. In the Philippines, breads and of most Filipinos, bread in its many forms still make up pastries are not just for eating. They are a tradition [3].

portion of our diet as Filipinos enjoy nibbling on all things soft, sweet, and sugary. Although baking bread has not been a native concept and was brought over by Europeans and our other neighbors, throughout the years, Filipinos have come to love eating bread. Local bakers, adjusting to the tastes of their clientele and even creating different breads of their own, have helped create a whole line of unique treats that are Filipino in their own way and have been enjoyed by many generations [2].

These breads and pastries from the Philippines are very much well-liked by their equally self-effacing

Most of the Filipinos love to eat bread and this became a part of their lives. One of these is the Siopao. Siopao is a steamed bun with a meat filling adopted from the Chinese and it became very popular and a favorite among many. According to Colinares [4], back when he was in the Philippines, this was one of his favorite snacks or meals. It does not require utensils to eat, and it can be consumed on the go. Hence, this is one of the reasons why Siopao can easily be found on the sidewalk at vendors or eateries.

Since many Filipinos love eating bread and pastry like siopao [5], and bread itself has many benefits for the health, combining it with a very healthy and nutritious filling, this will result to a product which will become the answer of sustaining a healthy lifestyle without restricting oneself to eating. The proponents decided to come up with a product that they know will be suitable to the target consumers. Product and Process Development is systematic, commercially oriented research to develop products and processes satisfying a known or suspected consumer need. In this model, after creating a prototype sample, the researcher conducts In-house testing then proceeds to consumer testing and scaling up [5].

The researchers came up to an idea of making siopao and mushroom as their study which focused on innovating a product for business purpose that can benefit not just the proponents but also to promote health which can give the people a delicious food with many health benefits and to alleviate poverty.

From the creative ideas of the proponents, they came up with a food innovation from the existing product in the market. The proponents present the “MUSHROOM SIOPAO”, Siopao with Mushroom as its main filling for which mushroom gives the body more nutrients and lowers the risk from getting calories and prevents some illnesses. Mushroom Siopao will also open doors to job opportunities for the people which can decrease poverty rate in the community since this only needs a low-cost capital for this innovation.

OBJECTIVES OF THE STUDY

The main focus of this study is to develop an Oyster Mushroom Siopao using mushroom as the main ingredient of the filling. Specifically, the study sought to answer the following questions: To identify sensory characteristics of Oyster Mushroom Siopao in terms of: appearance; aroma; taste; and texture; To know what is the most preferred sample for Oyster Mushroom Siopao; and To determine the acceptability level of the Oyster Mushroom Siopao.

MATERIALS AND METHODS

Research Design

The researcher employed developmental method since the study produced and enhanced existing product. And descriptive method since the main objective of the study was to determine the sensory characteristics, product preference, and acceptability level of the Oyster Mushroom Siopao.

Instrument

The research used a standardized questionnaire, the Quantitative Descriptive Analysis (QDA) score sheet, Rank Preference Test, and Acceptability Score Sheet [7] for the study, and it is further validated by experts.

Participant of the study

The study tapped 30 BS Food Service Management students and faculty from Camarines Sur Polytechnic Colleges using purposive sampling.

Data Collection Procedure

The researcher seeks consent to conduct the study and agrees that their responses would be treated with the utmost confidentiality. In this study, two samples were formulated for Oyster Mushroom Siopao to determine the most acceptable proportion. The formulations contain Oyster Mushroom. The sample 1 contain 40 grams of dough and 250 grams chopped Oyster Mushroom; Sample 2 contain 40 grams of dough, 250 grams chopped Oyster Mushroom, and 250 grams stripped chicken breast. These samples were baked in a digital oven at 300 degrees Fahrenheit for 30 minutes. The entire samples were processed following the same procedures, the same time, length, and temperature of cooking.

Data Analysis

In the treatment of the data gathered, several statistical tools were used after tabulation of responses. Percentage technique was used to identify the sensory characteristics of the product. Ranking was used to determine the most preferred siopao flavor, and weighted mean was used to determine the level of acceptability of the Oyster Mushroom Siopao.

RESULTS AND DISCUSSION

Table 1 presents the Sensory Characteristics of the Oyster Mushroom Siopao - Mushroom Flavor

Table 1. Sensory Characteristics of the Oyster Mushroom Siopao (Mushroom Flavor)

Indicators	Frequency	Percentage
APPEARANCE		
Light Brown	10	33
Golden Brown	20	67
AROMA		
Weak	0	0
Moderate	30	100
Strong	0	0
TASTE		
Less Pronounced	4	13
Pronounced	22	74
Very Pronounced	4	13
TEXTURE		
Soft	10	33
Firm	18	60
Very Firm	2	7
Total	30	100.0

Appearance. Based on the data gathered by the researcher, twenty (20) or 67% and sixteen (16) or 53% of respondents found the appearance of mushroom flavor golden brown while ten (10) or 33% found it light brown in appearance. This only implies that majority of the respondents found the appearance of the siopao golden brown which indicates siopao goes through a scientific process called the Maillard reaction, which has been proven to make food loads more delicious. [8].

Aroma. Thirty (30) or 100% of the respondents describe the flavor of the Oyster Mushroom Siopao as moderate in the aroma.

Taste. The taste was described by most of the respondents with a few twenty-two (22) or 74% pronounced and four (4) or 13% respondents described it as less pronounced and very pronounced.

Texture. On the data presented, eighteen (18) or 60% describe the texture firm and ten (10) or 33% describe the texture soft. Two (2) or 7% respondents describe the texture very firm.

Table 2 presents the Sensory Characteristics of the Oyster Mushroom Siopao (Mushroom-Chicken Flavor).

Appearance. Based on the data gathered by the researcher, sixteen (16) or 53% of respondents found the appearance of mushroom-chicken flavor golden brown while fourteen (14) or 47% found it light brown in appearance.

Aroma. Twenty-two (22) or 74% of the respondents describe flavor moderate in aroma. Four (4) or 13% describe the aroma of the mushroom-chicken flavor as weak and strong, respectively.

Table 2. Sensory Characteristics of the Oyster Mushroom Siopao (Mushroom-Chicken Flavor)

Indicators	Frequency	Percentage
APPEARANCE		
Light Brown	14	46.7
Golden Brown	16	53.3
AROMA		
Weak	4	13.3
Moderate	22	73.3
Strong	4	13.3
TASTE		
Less Pronounced	4	13.3
Pronounced	22	73.3
Very Pronounced	4	13.3
TEXTURE		
Soft	10	33.3
Firm	18	60.0
Very Firm	2	6.7
Total	30	100.0

Taste. The taste was described by most of the respondents with twenty-two (22) or 74% pronounced and four (4) or 13% respondents described it as less pronounced and very pronounced.

Texture. On the data presented, eighteen (18) or 60% describe the texture firm and ten (10) or 33% describe the texture soft. Two (2) or 7% respondents describe the texture as very firm.

It can be implied from table that the Mushroom siopao shows a good quality of a bread from its appearance, aroma, taste, and texture. According to Basbas [9], the outside characteristics of a bread is well-formed round shape, a smooth texture, a light to moderate brown color, and a considerably large volume (the size should at least double than that of the original). On the other hand, the inside characteristics include a feathery white to yellow crumb, small and uniformed cells, highly developed gluten strands that are soft and elastic, a fine and even grain, a pleasing yeasty aroma, and well-balanced taste that is neither sour, yeasty, salty, strong, nor heavy.

Table 3. Oyster Mushroom Siopao Product Preference

Indicators	Frequency	Rank
Oyster Mushroom Siopao (Mushroom Flavor)	12	2nd
Oyster Mushroom Siopao (Mushroom-Chicken Flavor)	18	1st

It can be gleaned from table 3 that the most preferred Oyster Mushroom Flavor is the Mushroom-Chicken Flavor with eighteen (18) respondents while the Mushroom Flavor came second with twelve (12) respondents. This implies that the Mushroom-Chicken Flavor was the most preferred since it has more flavor that compliments with the earthy and nutty flavor of the Oyster Mushroom.

Table 4. Level of Acceptability of Oyster Mushroom Siopao

Flavor	WM	Level of Acceptability
Oyster Mushroom Siopao (Mushroom Flavor)		
Appearance	4.2	Acceptable
Flavor	4.1	Acceptable
Texture	4.1	Acceptable
Oyster Mushroom Siopao (Mushroom-Chicken Flavor)		
Appearance	4.2	Acceptable
Flavor	4.0	Acceptable
Texture	4.1	Acceptable

Based on table presented, the level of acceptability of both the Mushroom Flavor and Mushroom-Chicken Flavor are Acceptable with a weighted mean of 4.2 for the appearance of both flavors, 4.1 for the flavor of Mushroom Flavor and 4.0 for the flavor of Mushroom-Chicken Flavor, and 4.1 for the texture of both Mushroom Flavor and Mushroom-Chicken Flavor. This implies that the Oyster Mushroom Siopao met the expectation of the consumers hence, this will be patronized by the consumers if offered in the market.

Sensory properties of a food play a collective role in forming positive expectations both before and during consumption. Overall appearance of a product is important for priming consumers and developing expectations prior to consumption [10].

CONCLUSION AND RECOMMENDATION

Based on the findings of this study, the researcher is hereby drawn the following conclusions: All the Mushroom siopao shows a good quality of a bread from its appearance, aroma, taste, and texture; The most preferred flavor for the Oyster Mushroom Siopao is the Mushroom-Chicken Flavor; 3.) The development of Oyster Mushroom Siopao product is acceptable to the respondents since it met the expectation of the consumers hence, the researcher may proceed to product commercialization [6].

Guided by the results of the study, the following recommendations are suggested: Since the Level of Acceptability of the Oyster Mushroom Siopao is Acceptable, there is still a room to improve the product for excellence; Implement an Oyster Mushroom Siopao production and A developed product is now in reality; marketing feasibility research can be proposed for the Oyster Mushroom Siopao can be one of the products that can be sold by the Camarines Sur Polytechnic Colleges as income generating project. Lastly, Future researchers can use the limitations of this study to widen up their coverage and create scholarly results to develop food products since the study is only limited to the sensory characteristics of the food product, product preference, and product acceptability.

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