

Market Acceptability Study of Vacuum-fried Chicken (*Gallus gallus domesticus* L.) "Isaw"

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ABSTRACT

Chicken "isaw" is a traditional food in the market that has been widely accepted by the low-income segment of the Filipino populace. Chicken "isaw" was developed into a more hygienic product through vacuum frying to improve its quality, shelf life, and marketability. Market acceptability assessment of the improved product was done by involving both consumers and non-consumers of chicken "isaw." Results of which showed that 93% of non-consumers were aware about the traditional chicken "isaw" but were not buying or consuming the product due to perceptions that the product is unsafe, unhygienic, and unpalatable. Results also showed that consumers purchased the product due to its affordability, availability, and palatable taste. The product was purchased weekly by a little less than 50% of the consumers, buying 4 to 6 pieces. Results revealed that all the consumer and non-consumer respondents were not aware of the improved chicken "isaw." However, 90% of consumers and 52% of non-consumers were willing to purchase the product. Moreover, 87% of consumers and 100% of non-consumers preferred vacuum fried chicken "isaw" compared to the conventionally fried one. Suggestions regarding the marketing mix strategies include: a.) offering the product in variants of different flavors; b.) improvement of color and texture; c.) development of appropriate packaging; d.) offering the product in small affordable packs, and; e.) making the product available in food courts, supermarkets, and canteens. In addition, product promotion in radio stations, social media, as well as other online sites and giving free samples, fliers, and posters were also suggested.

Keywords: chicken "isaw", market acceptability, vacuum frying

INTRODUCTION

"Isaw" is a fried or grilled chicken intestine traditionally consumed by Filipinos. It has been in the market particularly as street food for a considerable time. The demand for chicken "isaw" stems from its availability and affordability with a price of PhP 20.00 (0.40 USD) per 50 grams. However, people are wary of consuming this product because of food safety issues, short shelf-life, and keeping qualities. In

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order to address these issues, a new product was created through vacuum frying technology. The product was developed following the Response Surface Methodology (RSM) by screening and optimizing the variables that significantly influenced its quality in order to come up with optimum formulation. In addition, assessment of its shelf-life and quality was also done because it has to be mass-produced. However, market acceptability of the newly developed product was still undetermined. Hence, this study.

Market acceptability of a new product is a challenge for entrepreneurs because the failure rate is high and costly. Thus, it is important to determine what consumers prefer when they buy a new product (Arabadzhieva 2016). New product introduction can be studied from two perspectives: the entrepreneur's side and the consumer's side. For the entrepreneur's side, the innovation process starts with generating a creative idea and developing a concept for a product. This is followed by the new product development process, which transforms the idea into a product ready for the marketplace. After which, the product is finally launched (Annacchino 2003; Trott 2008). Meanwhile, studying the consumer's perspectives for a new product introduction is elaborated in this study. Hence, the general objective of this study is to determine the market acceptability of the newly developed vacuum fried chicken "isaw." Specifically, this study aimed to: a.) profile the consumers and non-consumers of chicken "isaw" in Baybay City, Leyte; b.) describe the buying habit of both consumers and non-consumers; c.) determine the response of non-consumers towards the newly developed product, and; d.) provide recommendations in formulating the marketing mix strategies of the vacuum fried chicken "isaw."

MATERIALS AND METHODS

Locale and Sampling Procedure of the Study

A total of 200 respondents were selected for the market acceptability study. One hundred were consumers of the conventionally fried chicken "isaw," while the other hundred were non-consumers. The study was conducted at Baybay City Food Park. All the respondents were asked to taste a sample of the product and immediately fill out the questionnaire. The interviewer interpreted the questionnaire into the local dialect for respondents who did not speak English or had minimal formal education. The instrument was composed of six parts. The first part contained the demographic profile of respondents in terms of age, sex, and monthly income. The second part was designed to determine their awareness of the conventionally fried chicken "isaw" and their source of information on the product. The third part covered their product purchase which includes where they bought the conventionally fried chicken "isaw"; how frequently they bought the product; the quantity of the product during purchase; and why they purchase the

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product. The fifth part determined their awareness of the newly developed vacuum fried chicken “isaw.” The sixth part elicited their comments on the vacuum fried chicken “isaw.”

Data Collection and Analysis

The data on profile, buying habit, and consumer preferences of both consumer and non-consumer respondents were gathered using a questionnaire. Additional data were gathered from the non-consumers to determine the reasons why they did not consume chicken “isaw” and their response towards the newly developed vacuum fried chicken “isaw.” Data obtained from the survey were analyzed statistically using SPSS version 17.0.

RESULTS AND DISCUSSION

Profile of Respondents

There were 200 respondents interviewed: 100 “isaw” consumers and 100 non-consumers where 42.5% were males and 57.5% were females (Table 1) with ages ranging from 10 to 61 years old. Respondents were also classified according to their monthly income based on the indicative range of monthly income of Filipinos published by Albert et al (2015) to help segment the subgroups in the possible market. Results show that 47% are low-income consumers with a monthly income of PhP 10,000 or less. On the other hand, for the non-consumers, one-third belongs to the low-income group, and another third belongs to the lower middle-income group with salaries between PhP 20,000 to PhP 30,000.

Table 1. Gender and monthly income of the respondents of chicken “isaw”

	Consumers		Non-Consumers		Total	
	Freq	Percent	Freq	Percent	Freq	Percent
Gender						
Male	35	35.0	50	50.0	85	42.5
Female	65	65.0	50	50.0	115	57.5
Total	100	100.0	100	100.0	200	100.0
Monthly income						
10,000 or less	47	47.0	33	33.0	80	40.0
10,001 to 20,000	23	23.0	22	22.0	45	22.5
20,001 to 30,000	25	25.0	33	33.0	58	29.0
30,000 and above	5	5.0	12	12.0	17	8.5
Total	100	100.0	100	100.0	200	100.0

Table 2 shows the correlation between the consumption of chicken “isaw” to the gender and monthly income of the respondents. Based on the results, gender has a significant effect on the decision of buying or consuming chicken “isaw.” This corresponds to the figure shown in Table 1 where more females consume chicken “isaw” than that of men. Moreover, as shown in Table 2, p-value for the monthly income is less than 0.05 which indicates that monthly income and consumption of chicken “isaw” has a significant positive relationship. It can be observed that almost half (47%) of the consumer respondents have low income (Table 1).

Table 2. Analysis of variance for the gender and monthly income of respondents

	SS	MS	df	F	p
Gender	1.150895	1.150895	1	4.664921	0.031987*
Monthly Income	1.578332	1.578332	1	6.453924	0.011838*

*-significant at $p < 0.05$

Awareness and Sources of Awareness of Chicken “Isaw”

Table 3 shows that all the consumers and 93% of the non-consumers were aware of chicken “isaw.” This is because the product has been in the market for a long time and bought primarily by the low-income segment. Its wide availability makes the product highly visible to people.

Table 3. Awareness of the respondents on the conventionally fried chicken “isaw”

	Consumers		Non-consumers	
	Frequency	Percentage	Frequency	Percentage
Yes	100	100	93	93
No	-	0	7	7
Total	100	100	100	100

The respondents had several sources of information on the conventionally fried chicken “isaw.” A greater portion of consumers obtained information from friends and colleagues (47%) and market outlets (43%), while most of the non-consumers (58%) said that they knew about chicken “isaw” through their colleagues or friends (Table 4).

Table 4. Respondents' sources of information on chicken “isaw”

	Consumers*		Non-consumers*	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Colleagues/friends	52	47.3	60	57.7
Communication media	3	2.7	0	0.0
Trade fairs/food expo	8	7.3	12	11.5
Market outlets	47	42.7	32	30.8
Total	110	100.0	104	100.0

*- Multiple response

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Reasons for Not Buying Chicken “Isaw”

Non-consumers reasons for not buying chicken “isaw” include the perceptions that the product is unsafe and unhygienic (41%), unhealthy (37%), and unpalatable (22%) (Table 5). This can be linked to the monthly income of the non-consumers of chicken “isaw” (Table 1 & Table 2) wherein more than half of them had a monthly income greater than Php 10,000. This means that they have the capability of choosing a wider array of food which they perceive to be healthier, more palatable, and produced safely.

Table 5. Reasons for not buying chicken “isaw”

	Frequency*	Percent
Unhealthy	38	37.2
Unsafe/Unhygienic	42	41.2
Unpalatable	22	21.6
Total	102	100.0

*- Multiple response

Product Purchase

The majority (71%) of the consumers purchased chicken “isaw” from street vendors (Table 6) since street vendors are commonly found outside the gates of schools and offices. In addition, as shown in Table 7, a greater proportion of the consumers (32%) purchased chicken “isaw” once a week, consuming 4 to 6 pieces at a time.

Table 6. Respondents' sources of chicken “isaw”

	Frequency*	Percentage
Street Vendors	79	71.2
Canteen	6	5.4
Public Market	26	23.4
Total	111	100.0

*- Multiple response

Table 7. Respondents' consumption of chicken “isaw”

Consumption	Frequency (No. of pieces)				Total
	1 - 3	4 - 6	6 - 10	More than 10	
Once a day	11	1	1	1	14
Twice a day	4	3	5	-	12
Once a week	7	32	2	1	42
Once a month	7	-	5	3	15
Twice a month	8	2	3	2	15
Thrice a week	-	1	-	-	1
Twice a week	-	1	-	-	1
Total	37	40	16	7	100

Table 8 shows that more consumers purchased chicken “isaw” because of its affordability (47%) and palatable taste (42%). This can be associated with the monthly income of the consumers (Table 2), who mostly had PhP 10,000.00 and below. Consumers buy “isaw”, especially the low-income segment, because at a low price, the product can also be consumed as a viand during meals.

Table 8. Respondent's reasons for purchasing chicken “isaw”

	Frequency	Percentage
Affordable price	59	47.2
Availability	12	9.6
Good taste	53	42.4
High nutritional value	1	0.8
Total	125	100.0

Awareness of Vacuum Fried Chicken “Isaw”

The survey results revealed that all of the respondents from both the consumer and non-consumer groups have not heard or seen vacuum fried chicken “isaw” before because this was a newly developed product (Table 9). From this information, marketing strategies can be developed for the product to penetrate the market.

Table 9. Respondents' awareness of vacuum fried chicken “isaw”

	Aware		Unaware		Total	
	Freq	Percent	Freq	Percent	Freq	Percent
Consumers	-	-	100	50	100	50
Non-consumers	-	-	100	50	100	50
Total	-	-	200	100	200	100

The respondents were asked to evaluate the product and their willingness to purchase it. Table 10 summarizes the respondents' (both consumers and non-consumers) willingness to purchase the newly developed vacuum fried chicken “isaw.” The results showed that 90% of the consumers and more than half (52%) of non-consumers were willing to purchase the newly developed vacuum fried chicken “isaw” as they perceived the product to have a crunchy texture, just the right saltiness, and is less oily.

Table 10. Willingness of the respondents to buy vacuum fried chicken “isaw”

	Consumers		Non-consumers		Total	
	Freq	Percent	Freq	Percent	Freq	Percent
Yes	90	90	52	52	142	71
No	10	10	48	48	58	29
Total	100	100	100	100	200	100

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Respondents' preference

Table 11 shows that respondents preferred the vacuum fried chicken “isaw” over the conventionally fried chicken “isaw.” The results reveal that 87% of the respondents from the consumer group preferred the vacuum fried chicken “isaw” to the conventionally fried product since the vacuum fried chicken “isaw” has a more palatable taste and aroma. Moreover, all of the respondents from the non-consumer group preferred the vacuum fried chicken “isaw” as they perceived the product to be safe because it was processed through vacuum frying and palatable with no pungent aroma.

Table 11. Respondents' preference between conventionally fried chicken “isaw” and vacuum fried chicken “isaw”

	Consumers		Non-Consumers		Total	
	Freq	Percent	Freq	Percent	Freq	Percent
CFCI	13	13	0	0	13	8.6
VFCI	87	87	52	100	139	91.4
Total	100	100	52	100	152	100

Legend: CFCI – Conventionally Fried Chicken “Isaw” , VFCI – Vacuum Fried Chicken “Isaw”

Suggestions for the Vacuum Fried Chicken Isaw's Marketing Mix

Suggestions regarding the 4Ps (product, price, place, and promotion) of the marketing mix were also gathered (Table 12). For the product suggestion, 58% of the respondents said that the vacuum fried chicken “isaw” should be offered in different flavors such as spicy, cheese, and garlic. Others suggested that its color should be improved (18%) and that appropriate packaging should be developed as chicken “isaw” currently available in the market does not have any packaging (21%). For the price, the majority (63%) suggested that the selling price should not be greater than Php 50.00 per 50 gram-pack while 37% said that there should be smaller and more affordable packs. A little less than 50% of the respondents suggested that the product be made available in food courts, supermarkets (32%), and department stores (22%). Moreover, more than half (56%) of the respondents recommended that the product be promoted in social media and other online sites. Finally, 37% of the respondents suggested that free samples, fliers, and posters must be distributed.

Table 12. Respondents' recommendations for the vacuum fried chicken "isaw"

	Frequency	Percentage
Product		
Improve the color	15	18.3
Improve the texture	2	2.4
Provide variant flavors	48	58.6
Provide appropriate packaging	17	20.7
Total	82	100.0
Price		
Small packs should be made available to be affordable	64	37.4
Price should not be greater than 50 pesos per 50 grams	107	62.6
Total	171	100.0
Place of distribution		
Supermarkets	29	22.0
Food Courts	61	46.2
Canteens	42	31.8
Total	132	100.0
Promotion		
Social media/online sites	95	56.2
Free samples and provide fliers and posters	62	36.7
Radio Stations	12	7.1
Total	169	100.0

CONCLUSION AND RECOMMENDATIONS

From the results of the study, 90% of the consumers and 52% of the non-consumers preferred the vacuum fried chicken "isaw". They were willing to buy the product as it was more palatable compared to that of the conventionally fried chicken "isaw." This means that the majority of the respondents, regardless of the subgroups, are possible consumers of the vacuum fried chicken "isaw" and that there is a potential for the newly developed product in Baybay City. In addition, respondents' recommendations should also be taken into consideration on the improvement of the product. It is suggested that further studies on the development of various flavors and packaging the product into small packs should be conducted.

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