

BIBLIOGRAPHY

BAGSIO, ESTHER T. APRIL 2011. Consumers' Acceptability Test on the Different Variants of Polvoron in the Different Schools of La Trinidad, Benguet. Benguet State University, La Trinidad, Benguet.

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ABSTRACT

The study was conducted to determine; the acceptability of consumers on the different variants of polvoron as to taste, sweetness, price and moisture content; find out the most accepted variants of polvoron; determine the factors affecting acceptability of consumers; and identify the consumers of polvoron.

A total of 200 schoolchildren and high students served as sensory taste panels of the study. An evaluation sheet was distributed to the panelist to evaluate the different variants of polvoron. The data were tabulated analyzed and presented using descriptive/frequency analysis.

The different variants of polvoron was evaluated as to the taste, sweetness, moisture content and overall general acceptability of the product. The mean rating on the acceptability shows that all the variants were rated between four and five which means that the product is liked to extremely liked. Based on the results of the sensory evaluation rating, majority of the taste panels like all the variants of polvoron tasted. The most preferred variant was the choco coated polvoron, followed by pinipig polvoron, choco chips and the least preferred was the peanut polvoron. The major factor that affects the acceptability of consumers on the different variants are the price, and taste. The

affordability of the product depend on the allowance of the schoolchildren and students. Suggestions on the improvement of the product include improvement on the texture of polvoron-make in fine, add more choco chips and increase the size.

The study was limited on the sensory evaluation, thus, it is therefore recommended that mass production should be done and market acceptability research should be conducted to determine the market acceptability of the different variants of polvoron.



INTRODUCTION

Rationale

Products are usually results of an idea. A product idea that survives the screening and idea evaluation steps must be analyzed further and involves some research and development to design the product. Part of the research and development process is testing the product in the market to determine its acceptability. This process may have several cycle building product model or in food processing is the production in limited quantities and testing it, revising or improving the product based on the result of the test or determine the market segment of the product and position that product on the identified market segments.

Product development includes product innovations which are done on existing products. Typical reason for product innovation is responding to customers need, increasing market share, establishing a new market, reducing cost and increasing revenues or improving the quality of product.

Today in the Philippines, there are many home based small businesses that are making polvoron and selling in the making. These products are even found in supermarket in different innovated forms such as flavored polvoron such as polvoron with nuts, and polvoron with pinipig. As observed nowadays, younger generation are fun of chocolate and choco-based products, thus one of the class project in enterprise development produced different variants of polvoron where one of the product developed include choco-chips and choco-coated polvoron. This research activity therefore, will look into the potential and acceptability of choco-based polvoron products through market acceptability test.



Statement of the Problem

The research activity aimed to answer the following questions;

1. What is the acceptability of consumers on the different variants of polvoron as to the following parameters?

- a. taste
 - b. sweetness
 - c. price
 - d. moisture content, and
 - e. general acceptability
2. What are the most accepted variants of polvoron ?
3. What are the factors affecting acceptability of consumers?
4. Who are the consumers?

Objectives of the Study

The research aimed to:

1. Determine the acceptability of consumers on the different variants of polvoron as to the following:

- a. Taste
 - b. Sweetness
 - c. Price
 - d. Moisture content, and
 - e. General acceptability
2. Find out the most accepted variant of polvoron.
3. Determine the factors affecting acceptability of consumers.



4. Identify the consumers of polvoron.

Importance of the Study

Market and market acceptability are the major factors to consider in the decision of an enterprise. A product is developed because there is market. Products are developed and produced for the purpose of commercialization a product/commodity will not be considered marketable not unless it is market tested and analyzed. Through this process, market, and market acceptability is determined. Thus, the result of this study will provide basic information to decision- making of entrepreneurs especially those engaged in the production of polvoron and other similar products and to improve the product as suggested by the panel of tester.

Scope and Limitation of the Study

This study focused on the consumer acceptability on the different variants of polvoron such as polvoron with nuts, polvoron with pop-rice, polvoron with choco-chips and chocolate coated polvoron. The study was conducted in the different schools in La Trinidad, Benguet which are target market outlets.



REVIEW OF LITERATURE

Product Development and Innovation

New products and services are vital to the economic survival of business organization. The continued introduction of new products or services assures the maintenance of the sales volume over a period of time as old products age through the product life cycle. The product life cycle relates the volume of sales of a product to the time that has elapsed since its introduction into the market place (Menipaz, 1984). Porter (1992) says “competitive strategy is about being different”. Most successful innovations are simple and focused. They are directed toward a specific clear and carefully designed application (Kuratko, 2007).

The Marketing Concept

To be a successful entrepreneur, one must develop effective marketing plans. But first they must have a full understanding of the marketing concept. The marketing concept is the belief that consumer wants and needs are the driving force behind any product development or marketing effort. Decisions were made primarily on investment reasoning. With little competition in the market place it worked. Consumers were forced to purchase what are available not necessarily what they desired. Consumers are more educated and competition has increased, particularly in regards to globalization. Consumers now expect to have their needs satisfied and can choose from a much broader array of goods than was before (Moorman and Halloran, 2006).



The Importance of Market

Business promotion and brand marketing is the backbone of a progressing concern. Therefore, the critical issue in promoting business is to develop marketing teams, and organize resources with consideration and appropriation of cultural differences and consumer diversions (Hayes, 2007).

Market Potential and Market Sizing Analysis

Market analysis services from mapping analytics help you know the economic opportunity available to you in any geographic market. Whether you sell to consumers, to businesses or both, market sizing provides intelligence you need to deploy sales and marketing resources effectively (Hayes, 2007).

Product Testing in Halls

Products are usually tested in Halls, but not all products are appropriate for testing in halls. Personal hygiene products, soaps and shampoos, for example are better tested in the home environment. Products that have to be tested over a period of time or in a complex way must similarly be tested at home. Food products are usually tested in halls (Dunning, 2000).

Furthermore, Dunning (2000) stated that every product must be presented in as realistic environment as possible and this is not always easy. Researching certain food and drinks is not without its difficulties. In the hall, the respondents are asked to view, touch, and smell or taste the products. This is always in controlled fashion and the brands that are under test are often presented “blind” being identified by number or letters rather than their names.



In addition, since the objective of a product is often to measure the attitudes to taste, it is usual to proffer only a small sample of the product. Occasionally, products are tested on their own (a monadic test) or more commonly two or three products are rated against each other (multiple test). Most hall tests aim to measure the acceptability of the products on a number of different attributes including taste, smell, touch and appearance. Each of these attributes can be further subdivided to take account of views on degrees of sweetness, texture (Dunning, 2000).

Sensory Evaluation

Sensory evaluation has traditionally been more provinces of research and development, close to technical research and manufacturing, than part of marketing and market research. Market research has principally been involved with researching the consumers and consumer's response to the market of the product, and the aspects of marketing and promoting it (Martin, 2000).

Furthermore, Martin reported that a competitive product is frequently used as benchmark, and the number of product variations assessed is usually small in number. Sensory evaluation is used more in the technical development of a product, in quality control, and in exploring and developing raw materials and manufacturing process.

The Polvoron

A polvoron is a type of andalusian shortbread of Levantine origin popular in Spain and Latin America and other ex-Spanish colonies such as the Philippines during Christmas. Polvoron is made of flour, sugar, milk and butter (Anonymous, N.D.). These are normally produced from September to January but are now available all year round.



The flour is toasted, all the ingredients are mixed and shaped into round or oval shaped molds. It is believed that making polvoron started during the American occupation to use up the huge amount of powdered milk brought in by the Americans. Polvoron over the years has become one of the most loved sweet Filipino delicacies (Del Rosario, 2007).

Uses and Benefits of Chocolate

Chocolate reputation for making people feel good is based not only on its caffeine content, but on its naturally occurring mood altering chemical phenylethylalaine and anandamide.

Chocolate is made from plants, which contain many of the health benefits of dark vegetables. These benefits are from flavonoid, which act as antioxidants. Antioxidants protect the body from aging caused by free radicals, which can cause damage that leads to heart disease. Chocolate contains a large number of anti-oxidants (nearly 8 times the number found in strawberries). Flavonoid also helps relax blood pressure through the production of nitric oxide, and balance certain hormones in the body (Stibich, 2009).

Chocolates also hold benefits apart from protecting your heart; it tastes good, it stimulates endorphin production which gives a feeling of pleasure, it contains serotonin, which acts as an anti-depressant and it contains theobromine, caffeine and other substances which are stimulants.



METHODOLOGY

Locale and Time of the Study

The research was conducted in the selected different schools of La Trinidad, Benguet particularly the elementary and high school departments of Benguet State University and the Saint Therese School, where the different variants of polvoron were supplied or sold. Consumer acceptability test was conducted from November to December 2010.

Respondents of the Study

Taste panels of the product served as respondents of the study (Table 1). The respondents were high school students and pupils of the said schools. There were 200 respondents/evaluators.

Respondents or taste panels were from the 2 elementary school (1 private and 1 public school) and 1 secondary public school.

Table 1. Number of taste panels from the participating schools

SCHOOL	FREQUENCY	PERCENTAGE
Saint Therese School –Elementary	73	36.50
Benguet State University – Elementary	74	37.00
Benguet State University – Secondary	53	25.50
TOTAL	200	100.00



Research Instrument

Two tools was employed in the study to determine the consumer acceptability of the different variants of polvoron; the product testing through taste test and sensory evaluation and market testing where the product were supplied to target market outlet and gather data on sales turnover. The taste panel evaluated the different products using a score sheet and rating scale from 1 to 5 where one means dislike extremely and 5 like extremely. The respondents were also required to answer some questions written in the score sheet or were interviewed to validate evaluation. Data were supplemented with a simple market survey of the competing products available in the market.

Data Gathered

The data gathered included the evaluation of the respondents to the taste, sweetness, moisture content, price and general acceptability, and choices of respondents and the reason for choices.

Data Analysis

The data gathered were tabulated, analyzed and presented using frequency analysis and other appropriate statistical tools.



RESULTS AND DISCUSSION

Profile of the Product Evaluators/Taste Panelist

Table 2 shows the ages of the taste panels. All respondents/taste panelists were the pupils and secondary students. These were the panelist because these were also the target market for the polvoron products. Majority (78%) of the taste panels were 10-13 years old and these are all in the elementary level and 22% were aged 14-17 years old, and were in secondary school.

Level of Acceptability of Taste Panelist on the Different Variants of Polvoron

Level of acceptability by taste panelist on choco-coated polvoron. The taste panelist evaluated the products as to taste, sweetness, moisture content and general acceptability (Table 3). Some of the taste panelist did not rate the product as to taste, two did not rate the sweetness, one did not rate the product as to moisture content and 5 respondents did not rate the general acceptability. Majority of the taste panelist rated the polvoron as like to extremely like as to the sweetness, taste, moisture content and majority like to extremely like the product. There was one taste panel who did not like the moisture content of polvoron. On the average rating, choco coated was rated

Table 2. Age of taste panels

AGE	FREQUENCY	PERCENTAGE
10 – 13 years old	156	78
14 – 17 years old	44	22
TOTAL	200	100



Table 3. Mean rating on the sensory evaluation of taste panels on choco-coated polvoron

CRITERIA	MEAN RATING					AVERAGE	DESCRIPTION
	4.2- 5.0	3.4- 4.1	2.6- 3.3	1.8- 2.5	1.0- 1.7		
	F	F	F	F	F		
Taste	97	71	16	5	-	4.40	Extremely like
Sweetness	96	6	24	72	-	4.30	Extremely like
Moisture content	70	82	35	12	1	4.06	Extremely like
General acceptability	89	79	24	3	-	4.30	Extremely like

Legend: 4.2 – 5.0 Extremely like
 3.4 – 4.1 Like
 2.6 – 3.3 Neutral (neither like or dislike)
 1.8 – 2.5 Dislike
 1.0 – 1.7 Dislike extremely

with 4.06 to 4.30 which means the product is extremely like as to taste, sweetness, moisture content and general acceptability. This implies that the majority of the taste panels like choco coated polvoron.

Level of acceptability of taste panels on choco chips flavored polvoron. Table 4 presents the level of acceptability of taste panels on choco chips flavored polvoron. The same as in the choco coated polvoron not all the taste panelist evaluated the product rigorously. Some respondents escaped some of the taste criteria. Majority of the taste panels gave rated the product with 3 (neutral) and 4 (like) as to the taste, sweetness and moisture content. From the 4 criteria, the average rating ranged from 3.78 to 4.04 which means like. The result implies that the choco chips flavored polvoron is acceptable by the taste panels.



Table 4. Mean rating evaluation by taste panels on choco chips polvoron

CRITERIA	MEAN RATING					AVERAGE	DESCRIPTION
	4.2- 5.0	3.4- 4.1	2.6- 3.3	1.8- 2.5	1.0- 1.7		
	F	F	F	F	F		
Taste	49	73	53	10	4	3.89	Like
Sweetness	49	74	44	13	4	3.89	Like
Moisture content	46	71	61	13	1	3.78	Like
General acceptability	61	79	43	5	4	4.04	Like

Legend: 4.2 – 5.0 Extremely like
 3.4 – 4.1 Like
 2.6 – 3.3 Neutral (neither like or dislike)
 1.8 – 2.5 Dislike
 1.0 – 1.7 Dislike extremely

Level of acceptability of taste panels on pinipig flavored polvoron. Pinipig is one of the most common flavor of polvoron that is commercially available. Majority of the respondents rated pinipig polvoron with 4 and 5 which means like to extremely like. The mean rating of the taste panels on taste, sweetness and moisture content ranged from 3.88 to 4.16 which means like. However, there few taste panels who do not like the taste (1 taste panels), sweetness (2 taste panels) and moisture content (5 taste panels) and two of the taste panels did not like the product. On the general acceptability, the taste panels mean rating of the pinipig polvoron was 4.20 which mean the product is extremely like. The result implies that pinipig flavored polvoron is also acceptable to the taste panels (Table 5).



Level of acceptability of taste panels on peanut flavored polvoron. Taste panels mean rating on the peanut polvoron ranged from 3.71 to 4.07 which means the product is liked as to the sweetness, taste, moisture content and general acceptability (Table 6).

Result implies that peanut flavored polvoron is accepted by the pupils and students (taste panels).

Table 5. Mean rating evaluation by taste panels on pinipig polvoron

CRITERIA	MEAN RATING					AVERAGE	DESCRIPTION
	4.2- 5.0	3.4- 4.1	2.6- 3.3	1.8- 2.5	1.0- 1.7		
	F	F	F	F	F		
Taste	83	76	28	9	1	4.16	Like
Sweetness	80	60	45	6	2	4.08	Like
Moisture content	58	81	41	12	5	3.88	Like
General acceptability	77	88	23	4	2	4.20	Extremely like

Legend: 4.2 – 5.0 Extremely like
 3.4 – 4.1 Like
 2.6 – 3.3 Neutral (neither like or dislike)
 1.8 – 2.5 Dislike
 1.0 – 1.7 Dislike extremely

Table 6. Mean rating evaluation by taste panels on peanut polvoron

CRITERIA	MEAN RATING					AVERAGE	DESCRIPTION
	4.2- 5.0	3.4- 4.1	2.6- 3.3	1.8- 2.5	1.0- 1.7		
	F	F	F	F	F		
Taste	52	65	52	18	7	3.71	Like
Sweetness	50	67	55	15	7	3.71	Like
Moisture content	47	80	45	12	5	3.80	Like
General acceptability	70	67	39	11	25	4.07	Like

Legend: 4.2 – 5.0 Extremely like
 3.4 – 4.1 Like
 2.6 – 3.3 Neutral (neither like or dislike)
 1.8 – 2.5 Dislike
 1.0 – 1.7 Dislike extremely



Acceptability of the Different Variants of Flavored Polvoron

All the variants of flavored polvoron were liked to extremely liked by majority of the respondents. Among the variants the most preferred was the choco-coated polvorn, followed by pinipig polvoron, followed by the choco-chips polvoron and the last was the peanut polvoron (Table 7). This shows that schoolchildren and students like chocolates. However, a total of 124 taste panels who were neutral (neither like or dislike) in rating the acceptability of the different variants of polvoron. Few of the respondents rated the polvoron with 2 (dislike) and 1 (dislike extremely). The taste panels maybe were not fun of eating sweets like polvoron.

Result implies that all the variants of flavored were accepted or liked by the taste panels but the most preferred is the choco-coated and the pinipig polvoron.

Table 7. Acceptability of the different variants of flavored polvoron

CRITERIA	MEAN RATING					AVERAGE	RANK
	4.2-5.0	3.4-4.1	2.6-3.3	1.8-2.5	1.0-1.7		
	F	F	F	F	F		
Choco coated	89	79	24	3	-	4.30	1
Choco chips	61	79	43	5	4	3.98	3
Pinipig	77	88	23	4	2	4.17	2
Peanut	70	67	34	11	25	3.79	4

Legend: 4.2 – 5.0 Extremely like
 3.4 – 4.1 Like
 2.6 – 3.3 Neutral (neither like or dislike)
 1.8 – 2.5 Dislike
 1.0 – 1.7 Dislike extremely



Price Acceptability of the Different Variants of Polvoron

Table 8 presents the price acceptability of the panels on the different variants of flavored polvoron. Majority of the taste panels (82% of choco chips; 77.50% for pinipig polvoron; 71.50% for peanut polvoron and 58.50% for choco-coated polvoron) stated that the following prices P4.00 per piece for choco chips, P2.00 per piece for pinipig polvoron, P 2.00per piece for peanut polvoron and P 2.00 per piece for choco coated polvoron) were affordable. On the other hand, there were also taste panels who stated that the price is not affordable to them as pupils and students. Thirty seven percent of the taste panels mentioned that choco coated polvoron is not affordable, 19% mentioned that the peanut polvoron is not affordable, 14.50% mentioned that the choco chips polvoron is not affordable and 14% mentioned that the price of pinipig polvoron is not affordable. Affordability on the part of students would depend on daily allowance for school. For those with higher school allowance can afford to buy more expensive food but for those with lower allowance would prefer to purchase food with lower cost.

The result implies that the retail price of the flavored polvoron is acceptable to target markets (pupils and students).

Table 8. Price acceptability of taste panel on the different variants of polvoron

POLVORON VARIANTS	AFFORDABLE		NOT AFFORDABLE	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
Choco coated	117	58.50	74	37
Choco chips	164	82	29	14.5
Pinipig polvoron	155	77.5	28	14
Peanut polvoron	143	71.5	38	19



Factors that Affects the Acceptability of Consumers on the Variants of Flavored Polvoron

Majority of the respondents mentioned that the major factors that affect their choices or acceptability of the product were the taste followed by the price and the nutritional content of the product (Table 9). Chocolate tastes good and gives a feeling of pleasure. Chocolate when taken in moderate quantity is good for the health especially for the heart. According to Stibich (2009) chocolate contains a large number of anti-oxidants (nearly 8 times the number found in strawberries). The flavanoid present in the strawberries acts as the anti-oxidants. Anti-oxidants protect the body from aging caused by free radicals which can cause damage that leads to heart disease. Stibich further reported that flavanoid also helps relax blood pressure. Anything that taste good or delicious is acceptable to consumers.

Price is another factor that affects the acceptability of the product, capacity of the student or schoolchildren to buy the product given the price and given their allowance. Students and schoolchildren with a higher allowance can afford to buy the choco coated polvoron at P4.00 per piece. Majority of these students were in the private schools. This result implies that the pupils or even the students does not know or were not aware on the

Table 9. Factors that affect the acceptability of consumers on the variants of polvoron

FACTORS	FREQUENCY	PERCENTAGE
Taste	195	97
Price	189	94
Nutrient Content	24	12



value of the product they were purchasing. As long as the taste is good and they have the money to buy then they buy.

The nutritional value was mentioned by a few of the respondents, maybe because very few knows that polvoron is nutritious because it is made of milk, flour and butter added with flavors like peanut would provide protein. The major factors that most consumer know is that when the product is made of milk contain some milk then they assumed it is nutritious.

Suggested Price by the Taste Panels

The taste panels/respondents quoted a higher price for the choco coated and choco chips polvoron (Table 10). Most (45 or 22.5%) of the taste panels suggested the price of choco coated polvoron at P3.00 – 3.50 per piece. This price suggested by the taste panel is lower than the retail price of the polvoron at P4.00 per piece. This implies that most of the taste panel cannot afford the P4.00 price of the choco coated polvoron. Nevertheless, there were 22 or 11% who suggested P 5.00 – 5.50 and 16 or 8% who suggested P 4.00 – 4.50 per piece which is equal or higher than existing price of the product. There were 23 (11.50%) who suggested P2.00 – 2.50 per piece which is equal and higher than the existing price of the product, but the 18 (9.00%) of taste panels who suggested that the price of choco-coated is P1.00 to 1.50, which is not feasible because with that price the cost of production will not be recovered. Price pegged at P2.50 and above is better because higher profit could be obtained from that price. The current price of the other variants of polvoron is P2.00 per piece.



Table 10. Suggested price by the taste panels

POLVORON VARIANTS	PRICE PER PIECE									
	P1-1.50		P2-2.50		P3 -3.50		P4-4.50		P 5-5.50	
	F	%	F	%	F	%	F	%	F	%
Choco-coated	18	9.00	23	11.50	45	22.50	16	8.00	22	11.00
Choco-chips	24	12.00	30	15.00	27	13.50	6	3.00	8	4.00
Pinipig polvoron	31	15.50	25	12.50	24	12.00	5	2.50	11	5.50
Peanut polvoron	30	15.00	24	12.00	28	14.00	5	2.50	10	5.00

Suggestions for the Improvement of the Product

Table 11 presents the suggestions of the consumers/taste panels on the different variants of polvoron tasted. Only seventy three out of the 200 taste panels suggested to improve the product. Thirty or 15% suggested to add more choco- chips on the choco chips flavored polvoron. Twenty five or 13% suggested that the size should be improved or increase because it is too small for its price at P2.00 to 4.00 per piece. Nine percent of the taste panels suggested that the polvoron should be processed finely or maybe should be sifted first before it will be molded so that the texture is smooth.

Table 11. Suggestions for the improvement of the product

SUGGESTION	FREQUENCY	PERCENTAGE
Improve or increase the size because it is too small for P2.00 or 4.00 for choco-coated	25	13
Process finely	18	9
Add more choco-chips	30	15



SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This study was conducted to determine the acceptability of target consumers of the different variants of flavored polvoron as to the taste, sweetness, price, moisture content and general acceptability. The study aimed to find out the most accepted variant of polvoron, determine the factors affecting the acceptability and identify the consumers of polvoron.

A total of 200 pupils and secondary students from Saint Therese Academy and Benguet State University (Elementary and Secondary) served as taste panels in the sensory evaluation. The taste panels evaluated the choco coated polvoron, choco chips polvoron, pinipig polvoron and peanut polvoron as to the taste, sweetness, moisture content and general acceptability of the product.

On the taste, sweetness, moisture content and general acceptability criteria, result shows that the mean rating on the acceptability by the taste panels on all the variants ranged from 3.71 to 4.40 which indicates that products is liked to extremely liked.

Among all the variants of flavored polvoron tasted by the panels, the most preferred was the choco coated polvoron followed by the pinipig polvoron. As to the rank on acceptability, number one was choco-coated, second was the pinipig, followed by the choco chips and the last was peanut. As to the rating of choco-chips and peanut polvoron, these were also like to extremely like by the taste panels, however, the majority of the taste panels preferred the choco coated and pinipig.

On the factors that affect the acceptability of consumers on the product were the taste, price and the nutrient content. Majority mentioned that taste was the major



consideration if it is good or delicious. Price was also one consideration as mentioned by majority of the taste panels, few have mention nutrient content of the food product.

As to price acceptability, majority of the taste panels mentioned that the price is affordable to all variants. However, there were some taste panels who mentioned that the price is not affordable especially the choco coated polvoron which is P4.00 per piece. The price of pinipig, choco chips and peanut polvoron is P2.00 per piece.

On the prices suggested by the taste panels, except for the choco coated polvoron, majority had pegged a higher price of the product, as compared to the current price. Despite the acceptability, there still some suggestion given by the taste panels to improve the product. Suggestions include; improve or increase the size of the product and to process finely and to add more choco chips.

Conclusions

From the results, the following conclusions were drawn.

1. The rating on the level of acceptability by the students and pupils on all the variants of polvoron is 4 (like) to 5 (extremely like) which indicates the product is accepted as to taste, sweetness, moisture content and the general acceptability.
2. The price of the different variants of polvoron is affordable and the suggested price by the taste panels is almost or higher than the current price of the product.
3. Factors that affect the acceptability of the product are the taste, price and nutrient contents.



Recommendations

The different variants of polvoron have market potential as shown in the study because it is accepted by the taste panels. However, still there were suggestions to improve the product by the panels. It is therefore recommended, that suggestion will be considered in the improvement of the product and promotion should be done in order to create or increase demand of flavored polvoron. Furthermore, it is recommended that a mass production and market testing to the potential outlet should be done to determine the market share and total demand. These factors will serve as a guide/basis in production decision especially on the volume of production.



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APPEDICES

APPENDIX A

Letter to the Respondent

Benguet State University
Department of Agricultural Economics and Agribusiness Management
College of Agriculture

November 2010

Dear Evaluators/Judges,

I am a graduating student of Benguet State University taking up Bachelor of Science in Agribusiness. As part of the course requirement, I am presently conducting an undergraduate research entitled “ Consumers Acceptability Test on the Different Variants of Polvoron in La Trinidad, Benguet”.

In this connection, may I solicit your support/cooperation by being an evaluator of the products. Please evaluate the different variants of polvoron by checking on the column where qualities/characteristics of the products posses.

Thank you for your cooperation.

Very truly yours,

ESTHER T. BAGSIO
Student Researcher



APPENDIX B

Evaluation Sheet

Judge No. _____

I. Personal Profile

Name of Judge/evaluator (optional) _____

Age _____ () Student () Faculty () school staff

Name of school/address _____

Occupation _____

Product Evaluation

Please evaluate the following variants of polvoron products as to the criteria given below.

Product rating:

- 1 – Dislike extremely
- 2 – Dislike
- 3 – Neutral (neither like or dislike)
- 4 – Like
- 5 – Extremely like

CC- 01 Polvoron

CRITERIA	1	2	3	4	5
Taste					
Sweetness					
Moisture content					
General acceptability					

Price P4/pc () affordable () not affordable

Suggested price _____

Comments and suggestions _____

CC-02 Polvoron

CRITERIA	1	2	3	4	5
Taste					
Sweetness					
Moisture content					
General acceptability					

Price P2/pc () affordable () not affordable

Suggested price _____

Comments and suggestions _____

CC – 03 Polvoron

CRITERIA	1	2	3	4	5
Taste					
Sweetness					



Moisture content					
General acceptability					

Price P2/pc () affordable () not affordable

Suggested price _____

Comments and suggestions _____

CC-04 Polvoron

CRITERIA	1	2	3	4	5
Taste					
Sweetness					
Moisture content					
General acceptability					

Price P2/pc () affordable () not affordable

Suggested price _____

Comments and suggestions _____

Thank you.



APPENDIX C

Sensory Evaluation Rating

Table 12. Sensory evaluation by taste panels on choco-coated polvoron

CRITERIA	1		2		3		4		5		TOTAL
	F	%	F	%	F	%	F	%	F	%	
Taste	-	-	5	2.5	16	8	71	35.5	97	46.5	189
Sweetness	-	-	6	3	24	12	72	36	96	48	198
Moisture content	1	0.5	12	6	35	17.5	82	41	70	35	199
General acceptability	-	-	3	1.5	24	12	79	39.5	89	44.5	195

Legend: 1 – Dislike extremely
 2 – Dislike
 3 – Neutral (neither like or dislike)
 4 – Like
 5 – Extremely like

Table 13. Sensory evaluation by taste panels on choco chips polvoron

CRITERIA	1		2		3		4		5		TOTAL
	F	%	F	%	F	%	F	%	F	%	
Taste	4	2	10	5	53	26.5	73	36.5	49	24.5	185
Sweetness	4	2	13	6.5	44	22	74	37	49	24.5	184
Moisture content	1	0.5	13	6.5	61	30.5	71	35.5	46	23	195
General acceptability	4	2	5	2.5	43	21.5	79	39.5	61	30.5	189

Legend: 1 – Dislike extremely
 2 – Dislike



- 3 – Neutral (neither like or dislike)
- 4 – Like
- 5 – Extremely like

Table 14. Sensory evaluation by taste panels on pinipig polvoron

CRITERIA	1		2		3		4		5		TOTAL
	F	%	F	%	F	%	F	%	F	%	
Taste	1	0.5	9	4.5	28	14	76	38	83	41.5	197
Sweetness	2	1	6	3	45	22.5	60	30	80	40	193
Moisture content	5	2.5	12	6	41	20.5	81	40.5	58	29	197
General acceptability	2	1	4	2	23	23	88	44	77	38.5	194

- Legend: 1 – Dislike extremely
 2 – Dislike
 3 – Neutral (neither like or dislike)
 4 – Like
 5 – Extremely like

Table 15. Sensory evaluation by taste panels on peanut polvoron

CRITERIA	1		2		3		4		5		TOTAL
	F	%	F	%	F	%	F	%	F	%	
Taste	7	3.5	18	9	52	26	65	32.5	52	26	194
Sweetness	7	3.5	15	7.5	55	27.5	67	33.5	50	25	194
Moisture content	5	2.5	12	6	45	22.5	80	40	47	23.5	189
General acceptability	25	12.5	11	5.5	39	19.5	67	33.5	70	35	192

- Legend: 1 – Dislike extremely
 2 – Dislike
 3 – Neutral (neither like or dislike)
 4 – Like
 5 – Extremely like



Table 16. Acceptability of the different variants of flavored polvoron

VARIANTS	1		2		3		4		5		RANK
	F	%	F	%	F	%	F	%	F	%	
Choco-coated	-		3	1.50	24	12.50	79	39.50	89	44.50	1
Choco chips	4	2.00	5	2.50	43	21.50	79	39.50	61	30.50	3
Pinipig polvoron	2	1.00	4	2.00	23	1.15	88	44.00	77	38.50	2
Peanut polvoron	25	13.00	1	5.50	34	17.00	67	33.50	70	35.00	4

Legend: 1 – Dislike extremely
 2 – Dislike
 3 – Neutral (neither like or dislike)
 4 – Like
 5 – Extremely like

