

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

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ABSTRACT: This study aimed to determine the level of consumer satisfaction and preferences for squash polvoron among Grade 12 Accountancy, Business, and Management (ABM) students of Muntinlupa National High School for the School Year 2025-2026. The research was grounded in the growing interest in food innovation and the use of locally sourced ingredients in Filipino delicacies. Specifically, it focused on assessing the acceptability of squash as a nutritious ingredient for polvoron. A descriptive research design was employed using a survey questionnaire administered to 183 respondents, selected from a total population of 339 ABM students through stratified random sampling. Statistical tools such as mean and percentage were used to analyze the data. Findings revealed that students were highly satisfied with the product, particularly in terms of its flavor, texture, and taste. The study concludes that squash polvoron is an acceptable and appealing snack among students. It is recommended that future food entrepreneurs consider developing and marketing squash polvoron as a healthy and innovative alternative to traditional sweets.

KEYWORDS: Filipino Delicacies, Preference, Satisfaction, Squash Polvoron, Traditional Sweets

I. INTRODUCTION

This study originates from a broader interest in food innovation and the utilization of locally sourced ingredients in popular Filipino treats. Initially, research explored the sensory acceptability of polvoron with diverse ingredients, including malunggay (Lavilla, 2019) and sweet potato (Refardo et al., 2023). These international and local studies highlighted the potential for modifying traditional recipes to enhance nutritional value and market appeal. A patorit (National Center for Biotechnology Information, 2025) further demonstrated the feasibility of incorporating squash into polvoron production, prompting a shift in focus toward this specific ingredient. The general exploration of polvoron innovation this narrowed to a particular ingredient (squash) and specific product (squash polvoron).

The research then moved from a general assessment of polvoron acceptability to a more focused investigation of consumer preferences. Studies such as Bayogos (2024) examined polvoron acceptability using broad samples, but this study will refine the scope by targeting a specific demographic: MNHS Grade 12 ABM students. This allows for a more detailed understanding of the preferences of a particular consumer group. The macro-level perspective of exploring diverse polvoron variations is this refined to a micro-level analysis of consumer response within a particular school and academic program. The nutritional benefits of squash (WebMD, 2024) further justify the selection of this ingredient for a younger demographic, providing a potential avenue for healthier snack options.

This study is guided by two key consumer behavior theories to better understand how students evaluate squash polvoron. The Expectation-Confirmation Theory (Oliver, 1980) explains how satisfaction forms when the product meets or exceeds expectations, while Consumer Preference Theory (Lancaster, 1966) examines how students' tastes and evaluations of product attributes influence their choices.

In this sense, the researcher identified how the selected students in MNHS of the school year 2025-2026 described their level of satisfaction with squash polvoron and their preferences in terms of its flavor, texture, and taste. The study further explored how these consumers respond to an innovative product using a locally available ingredient, squash, and how their feedback can guide future product development. By focusing on MNHS Grade 12 ABM students, this study aims to address a specific market

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

segment. Understanding their preferences regarding squash polvoron could inform product development and marketing strategies tailored to their unique needs and tastes. This study is important because it provides insights into consumer preferences, helping the researchers to improve the product and support academic learning. It also benefits business-related teachers, entrepreneurs, competitors, and future researchers by offering useful data for decision-making, product development, and further studies.

This targeted approach offers valuable insights beyond general consumer acceptability, providing more actionable data for potential entrepreneurs or food producers. This micro-level analysis provides practical implications for local businesses interested in the development of novel food products catering to a specific consumer group. The selection of students as the study's focus also provides a practical and readily accessible population for data collection. The concentrated nature of this group within a single institution simplifies the sampling process and reduces potential biases associated with more dispersed populations. The ABM program further suggests a potential interest in business aspects related to food production and market trends, making them a particularly relevant demographic for assessing the viability of a novel food product.

Therefore, this study moves from a broader international scope to a specific local focus, narrowing the research from general polvoron innovation to a targeted analysis of squash polvoron among MNHS Grade 12 ABM students. This micro-level study has the potential to yield detailed insights applicable to specific market segments and inform practical strategies for product development and marketing.

II. METHOD

Research Design

Quantitative research design was applied in this study. According to Bhandari (2020), a quantitative research is the process of collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationship, and generalize results to wider population. This study uses a quantitative research design because it allows for the objective measurement and analysis of consumer satisfaction and preferences for squash polvoron among MNHS Grade 12 ABM students. Among its several research method descriptive research were employed.

Descriptive research is an exploratory research method that helps a researcher describe a population, circumstance, or phenomenon. It can help answer what, where, when and how questions, but not why questions. In other words, it does not involve changing the study variables and does not seek to establish cause-and-effect relationships (Singh, 2023). Based on Rholetter (2023), This type of research can be qualitative or quantitative, focusing on specific aspects of broader topics while supporting hypotheses developed during qualitative studies. Importantly, descriptive research emphasizes the integrity of data collection by avoiding manipulation of the research context and prioritizing the subjects' experiences. A significant advantage of descriptive research is its versatility, as it can be applied to both individuals and large groups, ultimately aiding researchers in analyzing responses and gaining insights into specific areas of interest. This study uses a descriptive research method to assess consumer satisfaction and preferences for squash polvoron among Grade 12 ABM students.

Respondents of the Study

Data were obtained from grade 12 Accountancy, Business, and Management students from Muntinlupa National High School for the school year 2025-2026. Based on the total population of 339 students, the researchers applied Slovin's formula to determine the appropriate sample size, which resulted in 183 respondents. Slovin's formula is expressed as $n = \frac{N}{1 + Ne^2}$, where n is the sample size. N is the total population, and e is the margin of error. With a total population of 339 students and a margin of error of 0.05, the computation was $n = \frac{339}{1 + (339)(0.05)^2}$. This became $n = \frac{339}{1 + 0.8475}$, which simplified to $n = \frac{339}{1.8475}$. The result was approximately 183.57, which was rounded to 183 respondents.

The population was divided into subgroups based on their class sections, and samples were randomly selected from each group. The distribution of respondents was as follows: 32 students from ABM 1201, 32 from ABM 1202, 31 from ABM 1203, 31 from ABM 1204, 27 from ABM 1205, and 30 from ABM 1206. These people were selected using a stratified random sampling technique to ensure fair representation from each group. According to Taherdoost (2016), stratified sampling improves the accuracy and reliability of research results by ensuring that each subgroup within the population is proportionally represented.

Research Instrument

The research instrument used in this study was a self-developed survey questionnaire designed to measure consumer satisfaction and preferences regarding squash polvoron. To establish its validity, the instrument underwent a rigorous evaluation by a panel of three experts. This panel included a Practical Research Teacher (to assess methodological soundness, item structure, and scale appropriateness), a Grammar Teacher (to ensure clarity, proper construction, and unambiguous phrasing of all items), and a

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

Business Teacher (to evaluate the commercial relevance and marketing focus of the questions). The instrument is divided into two parts. Part I measures the Level of Satisfaction across four key indicators (Flavor, Texture, Aftertaste, Overall Quality) using a 4-point Likert-type scale: (4) Strongly Satisfied, (3) Satisfied, (2) Unsatisfied, and (1) Strongly Unsatisfied. This specific even-point scale was deliberately employed to eliminate a neutral option, compelling respondents toward a definitive satisfied or unsatisfied response, thereby increasing the discriminative power of the data.

Part II focuses on obtaining specific Product Preferences, which is critical for product development and market positioning, aligning with the input from the Business Teacher. This section is sub-divided into three choice-based sub-parts such as Flavor (Original, Chocolate, and Cookies and Cream), Texture (Too hard, Crunchy, Very Crunchy, and Soft), and the Percentage of Squash Flavor (20%, 45%, 70%, and 95%).

Data Gathering Procedure

To gather the necessary data, the following steps were followed:

1. The researchers prepared a survey questionnaire to collect data from Grade 12 ABM students of Muntinlupa National High School.
2. The survey questionnaire was checked and validated by the research teacher, business teacher and grammar teacher to ensure its clarity and relevance to the study.
3. The study population included all Grade 12 ABM students. Slovin's formula was used to determine the appropriate sample size.
4. Stratified sampling was applied to ensure equal representation from each section. The final sample included the following respondents: Section ABM 01-32, 02-32, 03-31, 04-31, 05-27, and 06-30.
5. Before the actual distribution, the researchers sought approval and consent from the participants. The purpose of the study and the confidentiality of their responses were clearly explained to ensure ethical standards were met.
6. The survey questionnaires were distributed personally. Respondents were given adequate time to answer the questions honestly and completely.
7. The researchers provided assistance and clarification whenever necessary to avoid misunderstanding or misinterpretation of any item.
8. After the data collection period, the accomplished questionnaires were gathered, checked, and organized.
9. The responses were tabulated, encoded, and statistically treated using appropriate tools and methods to determine the level of satisfaction and preferences of students toward squash polvoron in terms of flavor, texture, and taste.

Data Analysis

Descriptive statistics were employed to summarize the data collected from 183 Grade 12 ABM students at Muntinlupa National High School during the School Year 2025–2026. As Frost (2022) emphasizes, the mean provides a reliable measure of central tendency that represents the average perception of respondents, while the standard deviation indicates the degree of variability in their responses (Laerd Statistics, 2023). These measures collectively offer insights into the consistency and general trend of consumer satisfaction.

The study utilized four primary descriptive statistical tools mean, standard deviation, frequency, and percentage to assess both the satisfaction levels and preferences of respondents toward the squash polvoron. According to Crossman (2021), frequency and percentage are essential in describing categorical data, such as consumer preferences, because they display the distribution of responses in an interpretable format. Similarly, Calmorin and Calmorin (2018) affirm that frequency analysis enables researchers to detect dominant patterns in consumer choices.

- 1. Mean.**^{[1][SEP]} The mean summarizes a data set with a single number representing the data's center point or typical value, also known as the arithmetic average (Frost, 2022). In this study, the mean was used to determine the level of consumer satisfaction of the respondents toward the squash polvoron in terms of flavor, texture, taste, aftertaste, and overall quality.
- 2. Standard Deviation.**^{[1][SEP]} The standard deviation measures how spread out the data are relative to the mean (Laerd Statistics, 2023). It was used to determine the consistency of the respondents' ratings for each satisfaction indicator.
- 3. Percentage.**^{[1][SEP]} Percentage was used to show the proportion or distribution of respondents according to their profiles (sex and section) and to present how many respondents selected each level of satisfaction and preference (Crossman, 2021).
- 4. Frequency.**^{[1][SEP]} Frequency refers to the number of times a particular response or value occurs. It was used to display how often each rating or preference was chosen by the respondents (Calmorin & Calmorin, 2018).

III. RESULTS AND DISCUSSIONS

Table 1. Interpretation of the Consumer Satisfaction

Attributes	Mean	Standard Deviation	Verbal	Rank
Taste	3.67	0.52	Satisfied	1
Texture	3.58	0.49	Satisfied	2
Flavor	3.52	0.55	Satisfied	3
Aftertaste	3.46	0.50	Satisfied	4
Overall Quality	3.42	0.57	Satisfied	5
Overall Mean	3.53	0.53	Very Satisfied	

The results indicate an overall mean of 3.53, verbally interpreted as “Very Satisfied.” This suggests that respondents held a generally favorable perception of the squash polvoron’s sensory qualities. Among all attributes, taste ($M = 3.67$, $SD = 0.52$) ranked highest, followed closely by texture ($M = 3.58$, $SD = 0.49$). These findings underscore the importance of sensory attributes particularly taste and texture in influencing consumer acceptance of food products.

The low standard deviation values (ranging from 0.49 to 0.57) imply that responses were relatively consistent, reflecting a shared perception among the respondents. According to Lawless and Heymann (2010), low variability in sensory evaluation indicates stable consumer consensus, suggesting that the squash polvoron’s quality was uniformly perceived as satisfactory.

Furthermore, the dominance of taste and texture aligns with prior research indicating that these sensory factors are primary determinants of consumer satisfaction and purchase intention (Stone & Sidel, 2020). The lower ranking of “aftertaste” and “overall quality” implies potential areas for product improvement, such as refining the formulation to reduce lingering flavors or adjusting ingredient balance for a smoother finish.

Table 2. Interpretation of Consumer Preferences in Terms of Flavor

Preference Category	Option	Frequency (f)	Percentage (%)	Interpretation
Flavor	Original	40	22	Less Preferred
	Chocolate	83	45.1	Most Preferred
	Cookies and Cream	50	27.5	Preferred
	Others	10	5.4	Less Preferred

Table 3. Interpretation of Consumer Preferences in Terms of Texture

Preference Category	Option	Frequency (f)	Percentage (%)	Interpretation
Texture	Texture	15	8.2	Less Preferred
	Too Hard	55	30.2	Preferred
	Crunchy	21	11.5	Less Preferred
	Very Crunchy	92	50.1	Most Preferred
	Soft			

Table 4. Interpretation of Consumer Preferences in Terms of Taste

Preference Category	Option	Frequency(f)	Percentage (%)	Interpretation
Taste	20%	9	4.9	Less Preferred
	45%	25	13.7	Less Preferred
	70%	48	26.4	Preferred
	95%	101	55.0	Most Preferred

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

The frequency and percentage distribution reveal that Chocolate (45.1%) emerged as the most preferred flavor. The preference for chocolate flavor can be attributed to its familiarity and broad appeal among adolescents, as supported by Drewnowski and Almiron-Roig (2010), who note that chocolate-based flavors elicit strong hedonic responses due to their sweetness and richness.

In terms of texture, Soft (50.1%) was the most preferred, suggesting that consumers favored a delicate and melt-in-the-mouth consistency rather than a hard or overly crunchy texture. This finding aligns with the sensory expectations for polvoron, a traditional Filipino shortbread that is typically crumbly and tender (Gatchalian & Brannan, 2011). Hence, maintaining a soft texture appears crucial for product acceptability.

Regarding taste intensity, 55% of respondents preferred the full (100%) intensity level, indicating that stronger, more flavorful variants are more appealing to this demographic. This preference aligns with research by Moskowitz, Reisner, and Lawlor (2012), who found that younger consumers tend to prefer products with more pronounced flavors due to their heightened sensory curiosity and openness to rich tastes.

The results collectively suggest that the squash polvoron was well-received by the respondents, both in satisfaction and preference measures. The high ratings for taste and texture, along with the strong preference for soft texture and intense flavor, demonstrate the product's potential marketability among young consumers.

From a product development standpoint, the findings highlight several implications:

- 1. Product Optimization:** Maintaining a soft texture and rich taste intensity should be prioritized in future formulations.
- 2. Flavor Diversification:** The preference for Chocolate and Cookies and Cream suggests that offering multiple flavor variants may increase market reach.
- 3. Health Appeal:** Incorporating squash, a nutritious ingredient, provides a functional advantage, aligning with the growing consumer interest in healthier yet indulgent snack options (Nguyen et al., 2021).

Overall, the descriptive statistics provided a clear and comprehensive understanding of how consumers perceive and prefer the squash polvoron. The consistency of responses and the satisfaction ratings indicate that the product successfully met consumer expectations in most sensory attributes, establishing a strong foundation for potential commercialization and product enhancement.

IV. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the findings of the study, the respondents were generally satisfied with the squash polvoron, as reflected by the overall mean score of 3.53, verbally interpreted as "Satisfied." Among the evaluated attributes, taste (3.67) and texture (3.58) received the highest mean ratings, indicating that these qualities were the most appreciated by consumers. The relatively low standard deviation values suggest that the respondents' opinions were consistent, showing stable and reliable results. Therefore, the researchers concluded that the respondents were generally satisfied with the squash polvoron, and the high ratings for taste and texture show that these are the most liked qualities of the product. The results also revealed that chocolate flavor (45.1%) was the most preferred by the respondents, indicating that they favored its rich and sweet taste. This means that the squash polvoron was well accepted by the consumers and has a good potential in the market because of its desirable taste, texture, and flavor.

Recommendations

Therefore, it is recommended that producers maintain the good taste and texture of squash polvoron while improving its flavor to attract more consumers. The researchers also recommend developing new variants such as chocolate or cookies and cream to provide more choices. Producers are further encouraged to promote squash polvoron as a nutritious and unique alternative to regular polvoron, emphasizing its health benefits. Consumers are recommended to buy squash polvoron as a healthier and innovative snack option, supporting local products and promoting nutritious food alternatives. Future researchers are recommended to explore other aspects such as packaging, shelf life, and pricing, while students and entrepreneurs can view it as a promising business opportunity due to its positive consumer acceptance.

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Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

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APPENDICES


Republic of the Philippines
Department of Education
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Schools Division Office - Muntinlupa City
MUNTINLUPA NATIONAL HIGH SCHOOL

VALIDATION TOOL FOR THE SURVEY QUESTIONNAIRE

Name of Validator : Josephine M. Mankas
 Highest Educational Attainment : MAED
 Position Held/Years of Service : 12
 Field of Specialization : English
 Signature : [Signature]

Directions: Please indicate your degree of agreement or disagreement on the statements provided below by encircling the number which corresponds to your best to your judgment.

4 – Strongly Agree 3 – Agree 2 – Disagree 1 – Strongly Disagree

Criteria	4	3	2	1
1. The instructions or directions in the instruments are meaningful and easy to follow.	4	3	2	1
2. The items in the instrument are aligned with the Statement of the Problem.	4	3	2	1
3. The items in the instrument are current and relevant.	4	3	2	1
4. The items in the instrument are worded in a specific, clear, concise and unambiguous manner.	4	3	2	1
5. The items on the instrument can elicit responses which are stable, definite, consistent and not conflicting.	4	3	2	1
6. The items in the instrument can obtain depth to constructs being measured.	4	3	2	1
7. The items are neither too narrow nor limited in its content.	4	3	2	1
8. The instrument has an appropriate sample of items for the construct being measured.	4	3	2	1
9. The responses to the scale show a reasonable range of variation.	4	3	2	1
10. The layout or format of the instrument is technically sound.	4	3	2	1

Remarks/Recommendations:

Overall Rating
 Please check () appropriate rating.
☐ Approved to be used as presented
☒ Approved to be used with revision as indicated
☐ Disapproved, the researcher must make another




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Scanned with CamScanner

Figure 1. Validation Form from a Grammar teacher



Republic of the Philippines
Department of Education
NATIONAL CAPITAL REGION
Schools Division of Muntinlupa City
MUNTINLUPA NATIONAL HIGH SCHOOL

VALIDATION TOOL FOR THE SURVEY QUESTIONNAIRE

Name of Validator : BEVIRA B. CRUTON
 Highest Educational Attainment : MBA
 Position Held/Years of Service : III / 9 YRS
 Field of Specialization : MANAGEMENT
 Signature : [Signature]

Directions: Please indicate your degree of agreement or disagreement on the statements provided below by encircling the number which corresponds to your best to your judgment.

4 – Strongly Agree 3 – Agree 2 – Disagree 1 – Strongly Disagree

Criteria	4	3	2	1
1. The instructions or directions in the instruments are meaningful and easy to follow.	4	3	2	1
2. The items in the instrument are aligned with the Statement of the Problem.	4	3	2	1
3. The items in the instrument are current and relevant.	4	3	2	1
4. The items in the instrument are worded in a specific, clear, concise and unambiguous manner.	4	3	2	1
5. The items on the instrument can elicit responses which are stable, definite, consistent and not conflicting.	4	3	2	1
6. The items in the instrument can obtain depth to constructs being measured.	4	3	2	1
7. The items are neither too narrow nor limited in its content.	4	3	2	1
8. The instrument has an appropriate sample of items for the construct being measured.	4	3	2	1
9. The responses to the scale show a reasonable range of variation.	4	3	2	1
10. The layout or format of the instrument is technically sound.	4	3	2	1

Remarks/Recommendations:




Overall Rating

Please check () appropriate rating.

☒ Approved to be used as presented

☐ Approved to be used with revision as indicated

☐ Disapproved, the researcher must make another



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Figure 2. Validation Form from a Business teacher


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VALIDATION TOOL FOR THE SURVEY QUESTIONNAIRE

Name of Validator : Marikay M. Conde
 Highest Educational Attainment : Doctor of Education
 Position Held/Years of Service : Teacher III
 Field of Specialization : Management
 Signature : [Signature]

Directions: Please indicate your degree of agreement or disagreement on the statements provided below by encircling the number which corresponds to your best to your judgment.

4 – Strongly Agree 3 – Agree 2 – Disagree 1 – Strongly Disagree

Criteria	4	3	2	1
1. The instructions or directions in the instruments are meaningful and easy to follow.	4	3	2	1
2. The items in the instrument are aligned with the Statement of the Problem.	4	3	2	1
3. The items in the instrument are current and relevant.	4	3	2	1
4. The items in the instrument are worded in a specific, clear, concise and unambiguous manner.	4	3	2	1
5. The items on the instrument can elicit responses which are stable, definite, consistent and not conflicting.	4	3	2	1
6. The items in the instrument can obtain depth to constructs being measured.	4	3	2	1
7. The items are neither too narrow nor limited in its content.	4	3	2	1
8. The instrument has an appropriate sample of items for the construct being measured.	4	3	2	1
9. The responses to the scale show a reasonable range of variation.	4	3	2	1
10. The layout or format of the instrument is technically sound.	4	3	2	1

Remarks/Recommendations:
Edit based on suggestions about instructions/directions.

Overall Rating
 Please check (✓) appropriate rating.
☒ Approved to be used as presented
☐ Approved to be used with revision as indicated
☐ Disapproved, the researcher must make another set of guide questions







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Figure 3. Validation Form from a Research teacher

Survey Questionnaire

Squash Polvoron

Ingredients/Allergen notice:Squash powder,Milk,Sugar and Butter

Name : _____(optional)

Section :
 1201 ☐
 1202 ☐
 1203 ☐
 1204 ☐
 1205 ☐
 1206 ☐

Sex:
 Female ☐ Male ☐

Do you like eating polvoron? ☐ Yes ☐ No

Direction: For each statement, put a ✓ under the column that best describes how satisfied are you with Squash Polvoron.

Part I: Satisfaction on Squash Polvoron

How would you rate the flavor of Squash Polvoron?
☐ Strongly Satisfied
☐ Satisfied
☐ Unsatisfied
☐ Strongly Unsatisfied

How would you rate the texture of Squash Polvoron?
☐ Strongly Satisfied
☐ Satisfied
☐ Unsatisfied
☐ Strongly Unsatisfied

How would you rate the aftertaste of Squash Polvoron?
☐ Strongly Satisfied
☐ Satisfied
☐ Unsatisfied
☐ Strongly Unsatisfied

How satisfied are you with the overall quality of the squash polvoron?
☐ Strongly Satisfied
☐ Satisfied
☐ Unsatisfied
☐ Strongly Unsatisfied

Part II: Preferences on Squash Polvoron

Direction:Please check your answer in the box that best describes how Squash Polvoron met your needs.

A. Flavor
 What flavor do you prefer most in Squash Polvoron?
☐ Original ☐ Chocolate ☐ Cookies & Cream ☐ Other: _____

B. Texture
 What texture do you prefer most in squash polvoron?
☐ Too hard ☐ Crunchy ☐ Very crunchy ☐ Soft

C. Taste
 What percentage of squash flavor do you prefer most in squash polvoron?
☐ 25% ☐ 50% ☐ 75% ☐ 100%

Would you recommend Squash Polvoron to your classmates/friends?
☐ Yes ☐ No ☐ Maybe

Figure 4. Survey Questionnaire

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

Figure 5. Tally Sheet

Respondents	Section	Sex	Rating in Flavor	Rating in Texture	Rating the Aftertaste	Satisfaction in Overall Quality
1	1	1	1	1	1	1
2	1	1	4	3	4	4
3	1	1	4	4	4	4
4	1	1	4	4	4	4
5	1	2	4	3	2	4
6	1	1	3	3	3	3
7	1	1	3	3	3	3
8	1	2	4	4	4	4
9	1	2	3	4	4	4
10	1	1	3	3	3	3
11	1	1	3	3	3	3
12	1	2	3	3	3	3
13	1	1	3	3	2	3
14	1	1	3	3	3	3
15	1	1	3	3	3	3
16	1	1	3	3	3	3
17	1	2	3	3	2	3
18	1	2	4	4	4	4
19	1	2	3	3	3	3
20	1	2	4	3	3	3
21	1	1	3	3	3	3
22	1	1	3	3	3	3
23	1	1	3	3	3	3
24	1	1	3	3	3	3
25	1	1	4	4	4	4
26	1	1	4	4	4	4
27	1	1	3	3	3	3
28	1	1	3	3	3	3
29	1	1	3	3	3	1
30	1	1	3	3	3	3
31	1	1	3	3	3	3
32	1	1	3	3	3	3
33	2	2	4	3	3	3
34	2	2	3	3	3	3
35	2	2	4	4	4	4
36	2	2	3	3	4	4
37	2	1	4	3	4	4
38	2	2	3	3	3	3
39	2	1	3	3	3	3
40	2	1	4	4	4	4
41	2	1	4	4	4	4
42	2	1	3	3	3	3

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

43	2	1	3	3	3	3
44	2	2	4	3	3	4
45	2	1	4	4	4	3
46	2	1	4	4	4	4
47	2	1	3	3	3	3
48	2	1	3	3	3	3
49	2	2	3	2	3	3
50	2	2	3	3	3	3
51	2	1	3	3	3	3
52	2	1	4	4	4	4
53	2	1	3	3	3	3
54	2	1	3	3	3	3
55	2	1	3	3	3	3
56	2	1	3	3	3	3
57	2	1	4	4	4	4
58	2	1	3	3	3	3
59	2	1	3	3	3	3
60	2	2	3	3	3	3
61	2	2	4	4	4	4
62	2	1	3	3	3	3
63	2	2	4	4	4	4
64	2	1	4	4	4	4
65	3	2	3	3	3	4
66	3	1	3	3	4	4
67	3	2	4	4	4	4
68	3	1	4	4	4	4
69	3	1	3	3	3	3
70	3	2	3	3	3	3
71	3	2	3	3	3	3
72	3	2	4	4	4	4
73	3	1	4	4	4	4
74	3	1	3	2	3	3
75	3	1	4	4	3	3
76	3	2	3	4	3	3
77	3	1	3	3	3	3
78	3	1	4	3	3	3
79	3	1	3	3	3	3
80	3	1	3	3	3	3
81	3	2	3	4	3	3
82	3	1	4	3	4	4
83	3	1	3	3	3	3
84	3	1	3	3	3	3
85	3	1	3	3	3	3
86	3	1	3	3	3	3
87	3	1	3	3	3	3
88	3	2	3	3	3	3

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

89	3	2	4	3	3	3
90	3	2	3	3	3	3
91	3	2	3	3	3	3
92	3	1	4	4	4	3
93	3	2	4	4	4	4
94	3	1	4	4	4	4
95	3	1	3	3	3	3
96	4	1	3	3	3	3
97	4	1	4	4	4	4
98	4	1	3	4	3	3
99	4	1	3	3	3	3
100	4	1	3	3	4	3
101	4	1	4	4	4	4
102	4	1	3	4	3	4
103	4	2	4	4	4	4
104	4	1	3	3	3	3
105	4	2	4	4	4	4
106	4	1	4	4	4	4
107	4	1	3	4	4	4
108	4	1	4	3	4	4
109	4	2	3	3	4	3
110	4	1	4	4	3	4
111	4	1	4	3	3	4
112	4	2	3	4	3	4
113	4	1	2	2	2	3
114	4	1	3	3	3	3
115	4	2	3	3	4	3
116	4	1	3	3	3	3
117	4	2	3	4	3	4
118	4	1	4	3	3	3
119	4	1	4	4	4	4
120	4	1	3	4	4	4
121	4	1	4	4	3	4
122	4	1	3	3	3	3
123	4	2	4	4	4	4
124	4	1	4	4	4	4
125	4	2	3	3	3	3
126	4	1	3	3	3	3
127	5	1	3	3	2	3
128	5	2	3	3	2	3
129	5	1	4	4	4	4
130	5	1	3	3	3	3
131	5	1	3	3	3	3
132	5	1	4	3	3	3
133	5	1	4	4	4	4
134	5	1	3	3	3	3

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

135	5	2	4	4	4	4
136	5	1	3	3	3	3
137	5	1	3	2	2	3
138	5	1	4	4	4	4
139	5	1	4	3	3	4
140	5	1	3	3	3	3
141	5	1	3	3	3	3
142	5	1	3	3	3	3
143	5	1	3	3	3	3
144	5	2	3	3	3	3
145	5	1	3	3	3	3
146	5	1	3	3	3	4
147	5	1	3	4	3	3
148	5	1	3	3	3	3
149	5	2	4	4	4	4
150	5	2	4	4	4	4
151	5	1	3	4	4	3
152	5	2	3	3	3	3
153	6	2	3	3	3	3
154	6	1	3	3	3	3
155	6	2	3	3	3	3
156	6	2	4	4	3	4
157	6	1	3	3	3	3
158	6	1	3	3	3	3
159	6	1	3	4	4	3
160	6	1	4	3	3	4
161	6	1	4	4	4	3
162	6	1	3	3	3	3
163	6	1	4	4	4	4
164	6	2	3	3	3	3
165	6	1	3	3	3	3
166	6	2	3	4	3	4
167	6	1	1	4	3	3
168	6	1	4	3	3	4
169	6	1	3	3	4	3
170	6	1	3	3	3	3
171	6	1	3	3	3	3
172	6	1	4	4	3	4
173	6	2	3	3	3	4
174	6	2	3	3	3	3
175	6	2	3	3	3	3
176	6	2	3	3	3	3
177	6	1	4	3	4	3
178	6	1	4	4	3	4
179	6	2	3	3	2	3
180	6	1	3	3	3	3

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

181	6	1	3	3	3	3
182	6	2	3	3	4	3
		MEAN	3.313186813	3.291208791	3.252747253	3.324175824
		SD	0.541883107	0.533755247	0.558082879	0.535345329

Preference in Flavor	Preference in Texture	Preference in Taste
1	4	75
3	4	75
1	4	100
1	4	100
1	1	50
2	4	50
3	2	100
2	4	100
2	4	25
3	4	50
2	4	25
1	2	75
2	2	75
2	2	25
3	4	25
3	4	25
3	2	75
3	2	75
3	4	50
1	3	75
3	4	75
3	4	75
3	1	50
2	4	75
1	4	50
3	2	75
2	4	100
1	2	25
1	2	100
1	2	100
1	2	100
1	2	50
2	4	75
1	4	100
1	4	50
1	4	50
3	4	75
2	4	50
3	4	50

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

2	2	100
2	4	50
2	2	50
1	4	25
1	4	25
3	4	100
2	4	25
2	2	75
3	2	75
2	2	75
1	2	75
3	4	100
2	4	50
3	4	100
2	2	25
3	4	75
4	4	100
3	2	75
1	4	50
1	2	50
1	4	25
1	3	50
1	4	100
1	4	50
1	4	50
2	4	25
3	4	75
2	2	75
3	3	50
3	2	75
2	2	75
1	4	100
1	4	50
3	4	25
3	2	25
2	2	50
2	2	75
1	2	50
1	2	25
3	2	50
2	3	25
1	2	75
3	3	25
3	2	75
1	4	25
1	2	50

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

1	4	50
3	4	25
2	2	50
1	2	50
1	2	50
2	2	75
1	4	100
1	4	25
2	2	50
2	4	75
1	2	50
1	3	25
2	4	25
1	4	100
1	2	75
2	2	50
1	4	100
2	2	25
3	4	75
1	4	25
1	4	50
1	4	75
2	2	75
1	4	25
2	3	75
1	2	75
2	4	25
1	4	75
1	4	75
2	4	75
1	2	25
1	2	50
1	2	50
1	4	50
1	4	50
2	4	50
2	2	75
1	4	50
2	2	50
2	2	50
4	2	75
2	2	25
3	4	75
1	2	50
1	4	75
2	2	50

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

3	4	100
1	4	50
3	4	75
1	4	25
1	2	50
1	4	50
2	4	75
2	4	75
2	2	50
2	4	75
3	2	75
3	2	75
3	3	50
1	4	50
3	2	75
3	4	25
3	2	100
2	4	50
3	4	50
3	4	50
2	2	50
2	3	50
2	1	50
1	4	100
3	4	50
2	2	50
1	4	50
2	4	75
3	3	50
1	4	50
2	2	25
1	2	25
3	2	50
3	3	50
3	4	75
1	4	100
3	4	100
3	4	75
2	4	100
1	4	25
2	2	75
2	2	50
2	2	50
2	2	50
1	2	75
2	2	75

Assessing Grade 12 ABM Students' Satisfaction and Preferences Towards Squash Polvoron

1	4	50
1	4	50
3	4	50
1	4	50

PREFERENCE IN FLAVOR	FREQUENCY	PERCENTAGE
ORIGINAL	73	40.10989011
CHOCOLATE	58	31.86813187
COOKIES AND CREAM	49	26.92307692
OTHERS	2	1.098901099
TOTAL	182	100

PREFERENCE IN TEXTURE	FREQUENCY	PERCENTAGE
TOO HARD	3	1.648351648
CRUNCHY	72	39.56043956
VERY CRUNCHY	11	6.043956044
SOFT	96	52.74725275
TOTAL	182	100

PREFERENCE IN TASTE	FREQUENCY	PERCENTAGE
25% SQUASH	33	18.13186813
50% SQUASH	69	37.91208791
75% SQUASH	54	29.67032967
100% SQUASH	26	14.28571429
TOTAL	182	100



Figure 7. Documentation during Validation of Survey Questionnaire



Figure 8. Documentation while conducting survey



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