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Consumer Preferences for Ice Cream Candy in a University Market: A Usage–Attitude–Image Analysis of Product Design and Value

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ABSTRACT

Backgrounds: A familiar frozen snack can be made more distinctive through coating, texture, and presentation, but its value also depends on affordability and convenient access.

Objectives: This study applied Usage–Attitude–Image (UAI) to identify product preferences, consumption settings, desired image, and price–value expectations for an Ice Cream Candy concept among consumers in Iligan City.

Methodology: A descriptive consumer survey gathered 300 usable responses, including a separate three-layer choice module reported for 281 respondents. Frequencies, percentages, item means, and descriptive content categories informed an integrated market profile.

Findings: The sample was 90.00% students, and 74.33% reported monthly allowance/income below ₱5,000. Afternoon consumption (60.00%) and fixed-booth preference (76.67%) were prominent; lack of availability was the leading barrier (49.67%). Chocolate base flavor (70.33%), dark-chocolate coating (55.33%), crunchy texture (58.00%), and popsicle format (48.67%) led key selections. Clean, mess-free eating had the highest image-item mean (M=4.21). The largest willingness-to-pay group selected ₱20–₱30 (39.67%).

Conclusions: A viable Ice Cream Candy proposition combines recognizable flavors with perceptible sensory upgrades, convenient handling, visible value, and reliable access; higher-price variants require direct market testing rather than premium branding alone.

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1. INTRODUCTION

Frozen snacks occupy a distinctive position in food markets: they offer inexpensive enjoyment, yet their appeal depends on taste, convenience, and availability at the moment of purchase. These conditions are particularly visible around universities, where students juggle limited spending money, short breaks, and access to nearby outlets. Reviews of campus food environments repeatedly identify sensory appeal, value for money, and convenience as important considerations (Caruso et al., 2023; Lee et al., 2021; Li et al., 2022). For the local food entrepreneur, the question is how to improve an everyday frozen treat without pricing it outside students' routine snack purchases.

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The present study examines an Ice Cream Candy concept: a familiar Philippine ice-candy-style frozen snack developed with options for base flavor, coating, texture, presentation, and three-layer combinations. The product proposition combines an accessible childhood snack with a more distinctive sensory experience. A successful redesign, however, must be attractive not only when imagined but also when purchased, carried, and eaten. This makes the combined assessment of product preferences, consumption occasions, store availability, packaging appeal, and willingness to pay especially useful for early-stage product development.

Usage–Attitude–Image (UAI) provides the organizing lens. Usage captures when, where, and how consumers buy frozen snacks; attitude describes their preferred flavors, formats, coatings, and textures; and image describes the functional and symbolic meanings they would like the product to express, including cleanliness, nostalgia, visual appeal, and sustainability (Roberto, 2006). The framework is used to construct a practical market profile rather than to posit a causal sequence among the three domains. Price and perceived value are examined alongside UAI because a product's commercial appeal ultimately depends on what the buyer receives relative to the cost.

Related Philippine evidence reinforces the importance of product-specific diagnosis. Belamala (2025) found taste central to the acceptability of an innovative ampalaya ice-candy formulation, while Cabili et al. (2026) identified taste, texture, accessibility, and affordability as important to college students evaluating dim sum in Iligan City. A recent UAI study of potato-based foods in the same city likewise highlighted food stalls, familiar snack occasions, and value-sensitive trial behavior (Abellana et al., 2026). These studies address nearby product and market questions, but they do not establish how sensory configurations, desired image, and price thresholds combine for a layered Ice Cream Candy concept.

Limited research has examined familiar Philippine ice-candy products as integrated design-and-retail propositions in student-oriented markets. Therefore, this study applies UAI to identify the consumption settings, sensory attributes, image expectations, and price conditions under which a differentiated Ice Cream Candy concept may offer recognizable value to consumers in Iligan City. Its contribution is a concrete, locally grounded product-development profile that connects numerical preferences with consumers' own explanations of convenience, nostalgia, and value.

Specifically, the study aimed to (1) describe respondents' demographic and purchase-frequency profiles, (2) map consumption occasions, spending, purchase channels, and barriers, (3) identify preferred flavors, coatings, textures, and formats, (4) compare desired product-image and price–value attributes, (5) describe the leading base, filling, and shell choices for a three-layer configuration, and (6) integrate open-ended consumer responses with the survey profile to identify product and market implications.

2. LITERATURE REVIEW

2.1. Consumer Usage, Availability, and Value in Campus Food Markets

Campus food decisions are often shaped as much by opportunity to purchase as by an abstract product preference. University-based studies in Norway, Australia, Portugal, and Saudi Arabia point to taste, affordability, proximity, and access as recurring drivers of food choice (Al-amoudi & Almoraie, 2026; Keat et al., 2024; Martinez-Perez et al., 2021; Oliveira et al., 2024). Foundational food-choice research identifies price, convenience, and sensory appeal as recurring motives (Steptoe et al., 1995), and studies in academic environments emphasize the same sensory and health considerations (Imtiyaz et al., 2021). Student eating also responds to stress and self-regulation (Klatzkin et al., 2023; Ling & Zahry, 2021). In practical terms, the same frozen dessert can be attractive to a student but remain an occasional purchase when its stall is inconvenient or its price exceeds the available snack budget.

Distribution therefore belongs inside the value proposition. Evidence from Northern Mindanao bakery MSMEs suggests that customer access, high-traffic placement, and product freshness contribute to enterprise performance (Abellana & Alonzo, 2025). The current survey assesses consumption time, preferred selling channel, and purchase barriers to reveal where a locally designed frozen product could become convenient enough for routine consideration. The UAI usage domain is interpreted as a record of consumption circumstances, not a proof that proximity alone creates demand.

2.2. Sensory Attitudes: Flavor, Coating, Texture, and Format

A distinctive product need not abandon familiar sensory cues. Philippine ice-candy formulation research shows how changes in ingredients can improve acceptability while preserving a recognizable snack form (Belamala, 2025). In Iligan City, students' dim-sum evaluations similarly favored taste as a central acceptability cue (Cabili et al., 2026). Experimental food-design studies explain why visual texture, package shape, and color can influence expectations before tasting (Barbosa Escobar et al., 2022; Jiang et al., 2023; Sugimori & Kawasaki, 2022; Veflen et al., 2023). Thus, flavor choices need to be interpreted together with coating, texture, and format rather than as independent preferences.

Textural variation offers a visible route to product differentiation. Sensitivity to food texture differs across consumers (Katsikari & Varela, 2026), and the sensory associations elicited by a food can reveal more than an overall liking score alone (Heussen et al., 2023). A crunchy shell, a smooth coating, or a layered filling can each communicate a different eating experience. For students moving between classes, the format adds another dimension: a neat popsicle or bite-sized cup may make a distinctive treat easier to consume than a more cumbersome alternative.

2.3. Product Image: Visibility, Nostalgia, and Sustainability

Product image describes the meanings attached to an offering, rather than merely awareness of its existence. Packaging can convey quality and healthiness through material, color, visual simplicity, and presentation (Baptista & Schifferstein, 2023; Chen et al., 2023; Peng et al., 2023; Reinoso-Carvalho et al., 2021; Schifferstein et al., 2022). Other studies show that consumers interpret natural imagery and packaging aesthetics as product cues, although their effects vary with context (Carvalho et al., 2025; Du & Wang, 2024; Hu et al., 2025). For a small frozen snack, a useful image is one that makes the anticipated benefit understandable before purchase.

Visibility matters particularly when buyers want to judge what is inside the package. Research on food packaging indicates that transparency can influence quality expectations and willingness to buy, but results depend on the product and setting (Liang et al., 2023; Simmonds et al., 2018; Simmonds & Spence, 2017). Packaging may also alter consumption and food-waste inferences (De Temmerman et al., 2023; Mahmoudi & Mashayekhian, 2025). In the present context, the relevant question is whether packaging reveals the portion, coating, and layers while keeping the snack clean and convenient to eat.

Material, color, and imagery can further communicate product quality and sustainability (Berthold et al., 2024; Di Cicco et al., 2021; Liem et al., 2022; Magnier & Gil-Pérez, 2023). The visual experience of food itself can shape expected taste (Motoki et al., 2023; Spence et al., 2022), and packaging can influence the expectations of children and other consumer groups (Ares et al., 2022; Guo et al., 2024). These insights favor coherent, readable packaging over ornamentation that obscures the product.

Nostalgia provides a complementary image resource. Familiar food memories can encourage interest in products associated with the past (Zhou et al., 2019). In local food markets, cultural association and experience also matter for consumer satisfaction (Palangan et al., 2025). For Ice Cream Candy, this suggests an appealing design tension: offer a contemporary coating or cleaner format without discarding the familiar cues that identify the snack as an everyday Philippine treat.

2.4. Price, Perceived Value, and Visible Portion

Perceived value is formed by weighing expected benefits against monetary and nonmonetary sacrifices (Zeithaml, 1988). Consumers consider flavor, portion, convenience, consistency, and presentation together with price. Price-fairness research in food-service markets likewise identifies the joint influence of perceived quality and price (Tan et al., 2025). Studies of alternative food products in Iligan City show that novelty, attitudes, and willingness to purchase need to be evaluated jointly rather than assuming that awareness leads automatically to demand (Rosario et al., 2026).

Portion is particularly consequential when moving a low-cost snack into a more expensive tier. Evidence that restaurant portion size shapes perceived value (Ge et al., 2018) makes visible product quantity a practical signal to test. For a layered frozen treat, a thick shell, more generous filling, or

transparent presentation may help buyers recognize why a variant costs more. What matters is not a premium label by itself but a credible connection among sensory benefit, visible quantity, and price.

2.5. Analytical Framework and Research Questions

Figure 1 summarizes the diagnostic structure used in the study. Usage describes the purchase situation; attitude identifies the preferred sensory configuration; image indicates functional and symbolic expectations; and price–value indicators describe the commercial boundary. Open-ended responses are used to interpret these domains in respondents' own terms. This approach is consistent with integrating complementary survey evidence during interpretation (Fetters et al., 2013), while the individual domain summaries remain descriptive rather than causal.

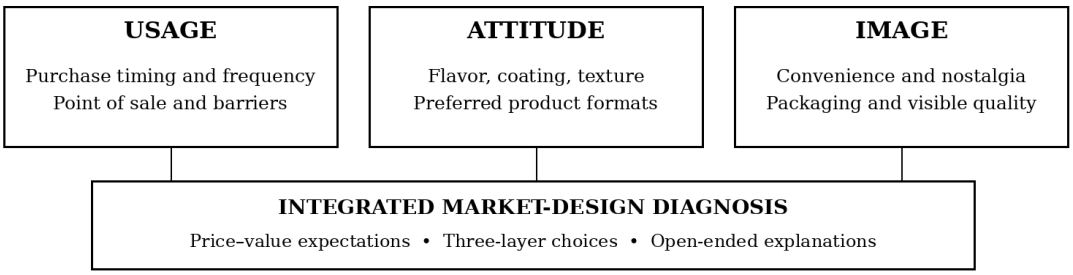


Figure 1. Usage–Attitude–Image as an integrated, non-causal product-development framework

Figure 1 shows how the three UAI domains describe both product appeal and the conditions of use. Price expectations, layer choices, and consumer explanations then translate that diagnosis into questions for packaging, prototype construction, sales location, and pricing.

3. METHOD

3.1. Research Design and Setting

This research employed a cross-sectional, descriptive consumer survey with embedded open-ended questions in Iligan City, Philippines. The quantitative component profiled usage, preferences, image ratings, and price expectations. The qualitative component summarized brief written explanations for craving occasions, desirable premium features, and acceptable price justification. Taken together, these elements provided a market diagnostic for product design, not an experiment or a longitudinal test of behavioral change.

3.2. Participants and Sampling

The survey included 300 adult consumers with prior experience purchasing or consuming ice candy or similar frozen treats. Respondents were approached through convenience recruitment in accessible school-related, community, and public settings; prior product experience served as an inclusion screen. The planned sample of 300 was an operational target for a descriptive market study, not a probability sample derived from a known population of frozen-snack consumers. The surviving study documentation does not specify exact recruitment dates, barangays, or a complete respondent sampling frame. Since the observed sample was predominantly student-based, the results are interpreted as a student-oriented local market profile rather than a population estimate for Iligan City.

3.3. Instrument and Measures

The UAI questionnaire contained demographic items (age, sex, occupation, allowance/income, and purchase frequency); usage items (consumption timing, sales channel, spending, and purchase barriers); and attitude items (flavor, format, coating, and texture). The image section used five separate importance ratings on a 1–5 response scale, where higher scores indicate greater importance. Results are reported as means and standard deviations rather than as a validated latent image scale. Price–value questions distinguished typical price paid, stated maximum

willingness to pay, and a price considered too expensive. Several multiple-response questions allowed participants to select more than one option; therefore, response percentages need not sum to 100%.

Three open-ended prompts asked about sweet cravings during campus life, the appearance of a premium frozen snack, and what would justify a ₱40–₱50 price. A 10-person pilot, excluded from the 300 completed surveys, was used to improve clarity of the instrument. The retained study files do not document a separate expert-validation exercise; consequently, the questionnaire is treated as a product-development tool rather than a psychometrically validated measure. A separate three-layer choice module reports results for 281 respondents; the archived summary does not preserve the screening or skip-rule explanation for the difference from the full sample.

3.4. Survey Administration and Participant Protection

Responses were obtained through face-to-face questionnaire administration. Participation was voluntary and informed consent was obtained before respondents answered the survey. No directly identifying respondent information is reported in the analysis. The available study records do not specify the calendar collection period or provide a formal institutional ethics approval or exemption reference; no such number is asserted here.

3.5. Descriptive Analysis and Integration of Open-ended Responses

For closed-ended questions, frequencies and percentages describe the survey responses, and item-level means and standard deviations describe desired product-image attributes. Percentages were computed against the item denominator of 300, except for the three-layer module, whose retained results use n=281. Means are compared descriptively; the analysis does not claim statistically significant differences among the five image attributes. Because layer selections are categorical choices rather than validated continuous scores, the three-layer module is analyzed through choice frequencies instead of correlation coefficients.

Open-ended responses were organized through descriptive qualitative content coding: answers were reviewed for recurring manifest categories such as stress-related cravings, nostalgic associations, visible portion, transparency, and price justification, then integrated with the quantitative results in the Discussion. This approach follows the logic of qualitative content analysis (Hsieh & Shannon, 2005) and integrated interpretation (Fetters et al., 2013). The original archive did not retain the number of text responses by prompt or independent-coder agreement statistics, so the categories are reported without invented counts or claims of intercoder reliability.

4. RESULTS AND DISCUSSION

4.1. Research Results

4.1.1. Respondent Profile

The respondents represented a clearly defined student-heavy audience (Table 1). Students accounted for 90.00% of the sample, females for 63.67%, and those with monthly allowance or income below ₱5,000 for 74.33%. Ages 18–19 accounted for two-thirds of participants. Nearly half (144, 48.00%) indicated that they rarely purchased the product, compared with just eight (2.67%) daily purchasers. The other frequency responses together accounted for 148 respondents (49.33%); their component categories are not disaggregated in the retained study summary. This distribution establishes the setting for the subsequent analysis: the findings primarily concern an accessible but budget-constrained student market.

Table 1. Respondent profile (n=300)

Variable	Category	n	%
Age	18	79	26.33
	19	119	39.67
	20–22	89	29.67
	23–29	13	4.33
Sex	Female	191	63.67
	Male	107	35.67
	Prefer not to say	2	0.67
Occupation	Student	270	90.00
	Working student	19	6.33
	Employee	6	2.00
	Unemployed	5	1.67
Monthly allowance/income	Below ₱5,000	223	74.33
	₱5,001–₱10,000	56	18.67
	₱10,001–₱20,000	17	5.67
	Above ₱20,000	4	1.33
Purchase frequency	Rarely	144	48.00
	Daily	8	2.67
	Other reported frequency responses (combined)	148	49.33

Ages are grouped from recorded single-year counts; the original frequency summary specifies only 'Rarely' and 'Daily' separately.

Source: Authors' survey

4.1.2. Usage and Consumption Patterns

Table 2 profiles purchasing opportunities and frictions. Afternoon was the most commonly selected consumption time (60.00%), while 76.67% selected a fixed booth or stall, compared with 35.00% selecting a roaming seller. Average spending per purchase clustered at ₱10–₱20 (41.33%) and ₱21–₱30 (29.00%). The most frequently reported barrier was lack of availability (49.67%), followed by hygiene concerns (41.33%), price/value concerns (40.00%), and messiness (35.67%). These patterns show why the place and manner of selling belong in product development, rather than being considered only after the product is formulated.

Table 2. Usage and consumption patterns

Domain	Response	n	%
Usual time*	Morning	19	6.33
	After lunch	105	35.00
	Afternoon	180	60.00
	Evening	84	28.00
Point of sale*	Hawker/roaming	105	35.00
	Fixed booth/stall	230	76.67
	Other	2	0.67
Average spending	Below ₱10	25	8.33
	₱10–₱20	124	41.33
	₱21–₱30	87	29.00
	Above ₱30	64	21.33
Purchase barriers*	Lack of availability	149	49.67
	Hygiene concerns	124	41.33
	Price/value	120	40.00
	Messiness	107	35.67
	Other/health/taste	18	6.00

*Multiple responses were permitted; percentages can exceed 100%

Source: Authors' survey

4.1.3. Product Attitudes and Attribute Preferences

Product preferences in Table 3 reveal a blend of familiarity and differentiated appeal. Chocolate (70.33%) and cookies and cream (64.00%) were the leading base flavors, with vanilla (51.00%) and mango (44.00%) remaining substantial options. Popsicle-style presentation (48.67%) and bite-sized cup/box presentation (45.33%) were both widely selected, while a traditional plastic wrap appealed to 32.67%. Dark chocolate was the leading coating (55.33%). Crucially, both crunchy (58.00%) and smooth (53.67%) textures attracted interest, making texture choice a plausible source of product variety rather than a single universal preference.

Table 3. Product attribute preferences

Attribute	Option	n	%
Base flavor*	Chocolate	211	70.33
	Cookies and cream	192	64.00
	Vanilla	153	51.00
	Mango	132	44.00
	Ube	111	37.00
	Avocado	100	33.33
	Strawberry	95	31.67
	Matcha	76	25.33
	Salted caramel	70	23.33
	Buko	67	22.33
Format*	Popsicle-style	146	48.67
	Bite-sized cup/box	136	45.33
	Traditional plastic wrap	98	32.67
Chocolate coating*	Dark chocolate	166	55.33
	Milk chocolate	105	35.00
	White chocolate	98	32.67
Texture*	Crunchy	174	58.00
	Smooth	161	53.67

*Multiple responses were permitted; percentages can exceed 100%

Source: Authors' survey

4.1.4. Desired Image and the Price–Value Boundary

As Table 4 shows, the highest numerical mean among the five image statements was for clean and mess-free consumption (M=4.21, SD=1.08). Childhood nostalgia followed (M=4.10, SD=1.10), then sustainable packaging (M=4.00, SD=1.14), visual appeal (M=3.95, SD=1.07), and a modern/high-end dessert image (M=3.62, SD=1.13). The ordering is descriptive: no paired-response test was available to determine whether these mean differences are statistically reliable. The practical insight is that participants gave substantial importance to functionality and familiar meaning while also expressing interest in visual improvement.

Table 4. Desired product-image attributes

Image attribute	Mean	SD
Clean and mess-free to eat	4.21	1.08
Reminds me of childhood/nostalgia	4.10	1.10
Sustainable or eco-friendly packaging	4.00	1.14
Visually appealing/Instagrammable packaging	3.95	1.07
Feels like a modern/high-end dessert	3.62	1.13

Each attribute was rated on a five-point importance scale; no categorical interpretation cut-offs are imposed on the reported means

Source: Authors' survey

The price profile in Table 5 places useful boundaries around the product proposition. More than half of the sample (54.33%) indicated that the typical unit price paid was ₱10–₱20, whereas

39.67% selected ₱20–₱30 as their maximum stated willingness-to-pay bracket. Another 35.00% selected ₱41 or more for maximum willingness to pay, but 59.33% considered a price above ₱50 too expensive. These answers do not estimate a demand curve; instead, they indicate a sizable price-sensitive core and a smaller segment willing to consider more costly configurations. The distinction between spending per purchase (Table 2) and typical unit price (Table 5) is maintained.

Table 5. Price sensitivity and value perception

Indicator	Price range	n	%
Typical price paid	₱10–₱20	163	54.33
	₱21–₱30	100	33.33
	₱31–₱40	27	9.00
	₱41–₱50	7	2.33
	Above ₱50	3	1.00
Maximum willingness to pay	₱20–₱30	119	39.67
	₱31–₱40	76	25.33
	₱41–₱50	64	21.33
	Above ₱50	41	13.67
Too expensive to buy	₱40	65	21.67
	₱50	57	19.00
	Above ₱50	178	59.33

Percentages recalculated from reported frequencies

Source: Authors' survey

4.1.5. Three-Layer Product Configurations

The separate layer-choice module reports a denominator of 281 responses (Table 6). Vanilla was the leading base selection (36.65%), cookies and cream the leading filling (25.63%), and chocolate the leading outer shell (54.80%). Importantly, the favored configuration differs from the general base-flavor profile, where chocolate led. The two question contexts appear to elicit different choices: a consumer considering a combination may reserve chocolate for the shell while choosing a milder base. This is an interpretation of the observed patterns, not a measured interaction among layer attributes.

Table 6. Leading choices for the three-layer concept (source module n=281)

Layer	Choice	n	%
Base	Vanilla	103	36.65
	Chocolate	82	29.17
	Matcha	23	8.19
	Strawberry	19	6.76
	Cookies and cream	17	6.05
Filling	Cookies and cream	72	25.63
	Chocolate	66	23.49
	Marshmallow	46	16.37
	Mochi	41	14.59
	Chewy caramel	29	10.32
Shell	Chocolate	154	54.80
	Cookies and cream	37	13.17
	Vanilla	29	10.32
	Strawberry	24	8.54
	Matcha	21	7.47

Only the five most frequent choices per layer are shown. The retained records do not explain the module screening rule; the denominator is therefore limited to its reported 281 respondents.

Source: Authors' survey

The configuration data reveal an important product-design opportunity: differentiation need not rely on unusual flavors at every layer. A familiar base, a contrasting filling, and a recognizably chocolate shell could create a more elaborate eating experience while remaining easy to understand. This interpretation is supported by the combination of Table 3's flavor/texture preferences and Table 6's layer selections. The observed preferences provide a clear basis for designing prototype combinations to evaluate through tasting and trial purchases.

4.1.6. Consumer Explanations from Open-ended Responses

The short-answer material enriched the survey results in three ways. First, students described sweet cravings as part of post-meal routines, relief from academic stress, or a modest reward, while also mentioning financial limits and the difficulty of finding a convenient option. Second, consumers associated premium appearance with visible flavors or layers, restrained packaging, portability, nostalgia, and clear presentation. Third, respondents discussing a ₱40–₱50 price emphasized larger portions, good taste, flavor variety, recognizable ingredients, and packaging that allows the buyer to see the product. Table 7 organizes these reported categories and their product-development implications; the categories are qualitative summaries rather than frequency-ranked themes.

Table 7. Qualitative categories from open-ended responses and their design implications

Domain	Recurring categories	Interpretive implication
Craving and purchase context	Academic stress/reward; post-meal cravings; budget limits; availability; health deterrents	Demand is situational. Availability and affordability determine whether stress- or craving-driven interest becomes a purchase.
Premium image	Color/flavor cues; minimalist design; transparency; portable form; visible toppings/layers; nostalgia	Premium image is concrete and sensory: consumers want to see quality while retaining familiar, easy-to-carry forms.
Value at ₱40–₱50	Portion/volume; taste; flavor variety; premium ingredients; packaging	Higher price requires visible abundance and sensory performance; packaging alone is insufficient.

Source: Authors' descriptive content summary of open-ended survey responses; categories are not presented as quantified theme frequencies

4.2. Discussion

4.2.1. A Familiar Sensory Core Is More Important Than Novelty for Its Own Sake

The preference profile in Table 3 centers on chocolate, cookies and cream, and vanilla, but it also rewards dark-chocolate coating, crunchy shells, and conveniently portioned formats. This is a commercially useful combination: innovation appears attractive when it adds to a familiar sensory core instead of replacing that core. Food-design research helps interpret the pattern. Before tasting, consumers form expectations from color, shape, textural appearance, and imagery (Barbosa Escobar et al., 2022; Motoki et al., 2023; Veflen et al., 2023). Local research on dim sum and ice-candy acceptability further illustrates the enduring importance of taste, even in differentiated food offerings (Belamala, 2025; Cabili et al., 2026). Product development can therefore test a recognizable base with a distinctive shell, filling, or visible texture contrast rather than seeking novelty in every attribute.

The selection of crunchy and smooth textures should also discourage a one-size-fits-all design decision. Texture sensitivity varies across individuals (Katsikari & Varela, 2026), and the differences in preferences in Table 3 are small enough to support testing parallel options. In particular, a crunchy shell may create a perceptible upgrade for one segment, whereas another may value smoothness and ease of eating. A limited two-variant prototype would let the entrepreneur evaluate these possibilities in tasting trials without assuming that every customer wants the same sensory experience.

4.2.2. Availability and Clean Consumption Are Part of the Product Proposition

The usage data tell a second story: product liking cannot create a sale when a snack is difficult to find. Lack of availability was the most frequently selected purchase barrier, while fixed stalls attracted far greater interest than roaming channels. These observations align with campus food-

environment research, where convenience and location remain important (Keat et al., 2024; Li et al., 2022; Martinez-Perez et al., 2022), and with local MSME evidence emphasizing accessible distribution and consistent product availability (Abellana & Alonzo, 2025). For a frozen treat requiring reliable cold storage, an identifiable, well-managed point of sale can be part of the experience of quality, not merely a marketing afterthought.

The image evidence reinforces this operational interpretation. Clean and mess-free consumption received the highest observed mean among the five image items, and portable formats attracted considerable interest. Consumers appear to appreciate a snack that fits the rhythm of classes, movement, and brief pauses. A visually striking product that is difficult to handle may therefore lose some of its appeal in this setting. These results connect design, packaging, and retail execution: ease of purchase and ease of consumption jointly help define perceived product value.

4.2.3. Premium Image Is Built Through Visibility, Restraint, and Familiar Meaning

The image ratings do not point solely toward an aspirational high-end brand. Instead, clean consumption, nostalgia, sustainable packaging, and visual appeal all received means of 3.95 or above, whereas the explicitly high-end statement averaged 3.62. Because these are item means rather than paired statistical contrasts, the result is best read as a pattern of broad preferences. The open-ended responses provide texture: respondents discussed transparent or minimal packaging, visible layers, and recognizable frozen-snack cues. Existing research shows that food imagery, transparency, package material, and aesthetics can alter expected quality (Berthold et al., 2024; Carvalho et al., 2025; Hu et al. (2025); Liang et al., 2023; Schifferstein et al., 2022; Simmonds et al., 2018). The implication for the design team is to show the product clearly rather than conceal it behind an abstract premium identity.

Nostalgia gives this approach a distinctively local possibility. Food-related memories can strengthen interest in recognizable products (Zhou et al., 2019), and research on Maranao gastronomic experiences underscores the contribution of cultural awareness to evaluating local food encounters (Palangan et al., 2025). Ice Cream Candy may therefore benefit from a familiar flavor vocabulary and recognizable snack form, enhanced through cleaner presentation and layered construction. Importantly, nostalgia here is an expressed image association, not a variable experimentally shown to increase purchase.

4.2.4. The ₱40–₱50 Tier Requires Visible Value, Not Packaging Theater

The most commercially consequential tension is between what respondents normally pay and what they would consider paying for an upgraded product. The common unit price is ₱10–₱20; the largest stated maximum-willingness-to-pay group is ₱20–₱30; and more than half locate the too-expensive threshold above ₱50. Open-ended comments explain what might make the higher range understandable: a generous portion, robust flavor, visible layers or coatings, and ingredients that appear worth the premium. This interpretation is consistent with perceived-value theory (Zeithaml, 1988) and with the role of visible portions in value judgments (Ge et al., 2018). Local UAI work on potato-based foods and alternative food products likewise indicates that positive evaluations have to be understood alongside usage opportunities and price considerations (Abellana et al., 2026; Rosario et al., 2026).

Consequently, packaging should communicate evidence of value rather than simply announce a luxury identity. A transparent window might display the portion and layering; a neatly handled format might signal hygiene and convenience; a distinctive coating might substantiate the product's sensory difference. This is consistent with work on food-package material, reusable packaging, and sustainability cues (Du & Wang, 2024; Liem et al., 2022; Magnier & Gil-Pérez, 2023). The sustainability item also deserves care: respondents considered eco-friendly packaging desirable, but this survey did not establish whether they would pay more for it or whether the preferred materials would perform well in frozen distribution. Feasibility testing must therefore examine cost, cold-chain functionality, and environmental impact together.

4.2.5. Product and Market Implications

The descriptive evidence supports a manageable sequence of prototype decisions. A first product line could test a chocolate or vanilla base with a dark-chocolate shell in both smooth and

crunchy versions. Popsicle and bite-sized cup formats should be evaluated for leakage, handling, portion visibility, and actual consumption experience. A second prototype could use a vanilla base and cookies-and-cream filling with a chocolate shell, reflecting the layer module rather than treating each layer as an isolated choice. Afternoon sales at an identifiable stall provide a reasonable pilot context because afternoon consumption and fixed-booth preference were prominent in the survey.

Commercial testing should separate an accessible everyday unit from a differentiated layered option. The former can be compared with the ₱10–₱20 spending reference, while the latter could be evaluated in controlled tasting and stated-choice tests around ₱40–₱50. These are product-development propositions, not estimated optimal prices. A future study with recorded transaction data could test the price–portion trade-off; income-by-willingness-to-pay and purchase-frequency-by-barrier cross-tabulations would be worthwhile once respondent-level records are available. The key is to make the added value visible, test whether consumers experience it, and then determine whether repeat purchases occur.

5. CONCLUSION

This study provides a practical UAI profile of Ice Cream Candy demand in a largely student market in Iligan City. Its central finding is that a differentiated frozen snack must work as an everyday purchase before it can succeed as a premium concept. Respondents consistently selected familiar flavors, particularly chocolate and cookies and cream, while showing interest in dark-chocolate coatings, varied textures, and portable formats. Purchase occasions centered on the afternoon, and the strongest reported barrier was lack of availability. The pattern links product design with market access: the desirable snack is not only appealing to taste but also easy to find, carry, and consume.

The desired image adds a second insight. Clean and mess-free eating received the highest observed importance mean, while nostalgia and visual appeal were also valued. In the three-layer task, vanilla, cookies and cream, and chocolate emerged as the most selected base, filling, and shell, respectively. Together, these findings suggest an opportunity to modernize an inexpensive familiar product through visible coating, layering, convenient presentation, and recognizable sensory cues. The price profile places a boundary on this ambition: the largest maximum-willingness-to-pay bracket was ₱20–₱30, and a ₱40–₱50 offer would need to demonstrate greater portion and sensory value rather than relying on the word ‘premium.’

The contribution is an integrated early-stage design brief grounded in usage conditions, sensory attitudes, image associations, price thresholds, and consumer explanations. For local food enterprises, it identifies testable choices in flavor, texture, format, sales location, packaging, and price architecture. The student-heavy convenience sample, incomplete documentation of the secondary layer module, and short-answer qualitative format constrain wider generalization and inference; these limits do not diminish the study’s usefulness as a focused market diagnostic. Subsequent tasting trials, observed transactions, and more representative sampling can test which proposed configurations produce both favorable evaluations and sustainable repeat demand.

Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this paper.

Author Contributions

J.J.G.A.: Conceptualization, Methodology, Formal Analysis, Supervision, Validation, Project Administration, Visualization, Writing – Review & Editing.
D.N.A.: Conceptualization, Investigation, Data Curation, Writing – Original Draft.
J.D.V.C.: Investigation, Data Curation, Formal Analysis, Visualization, Writing – Original Draft.
T.T.M.D.V.: Investigation, Data Curation, Resources, Writing – Original Draft.
M.T.G.: Investigation, Methodology, Data Curation, Writing – Original Draft.
E.M.N.M.P.: Investigation, Validation, Data Curation, Writing – Original Draft, Writing – Review & Editing.

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Informed Consent

Informed consent was obtained from all participants prior to survey administration.

Ethical Approval

The study involved voluntary, adult, minimal-risk, non-interventional market-survey participation with informed consent. No formal ethics approval or exemption reference is contained in the retained study documentation; accordingly, no committee approval number is asserted.

Data Availability

De-identified data supporting the summary results may be requested from the corresponding author, subject to the researchers' retention arrangements and participant-confidentiality requirements.

Declaration of Generative AI and AI-assisted Technologies

ChatGPT (OpenAI) assisted with manuscript organization, language revision, and reference presentation. The authors remain responsible for the study design, source data, interpretation, accuracy, originality, and final manuscript approval.

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