Modernizing Sweet Potato Delicacies: Value-Added Perceptions Among Young Consumers in Iligan City, Philippines

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ABSTRACT

Backgrounds: Modernized sweet potato snacks can broaden local food-product offerings, yet their market potential depends on more than novelty or favorable attribute ratings.

Objectives: This study examined recognition, utilization, and perceived value-added attributes of Sweet Potato Pillows, Sweet Potato Mochi, and Sweet Potato Buchi among young consumers in Iligan City, Philippines.

Methodology: A quantitative descriptive-correlational survey of 300 purposively recruited adults examined product recognition, general sweet potato consumption, stated purchase reasons, and four-point importance ratings. Descriptive statistics, exploratory group comparisons, and reported Pearson tests were used.

Findings: Buchi was the most recognized concept (45.33%), followed by Pillows (11.67%) and Mochi (5.33%). Sweet potato-product consumption was generally occasional, and taste was the leading stated buying reason (89.67%). All four value-added attributes were rated extremely important across concepts (M = 3.48-3.72), with health/nutritional value and economic value consistently leading. Feature-importance ratings differed by sex and occupation, while awareness and usage did not show significant demographic differences; reported variant-feature associations were statistically significant.

Conclusions: The results identify distinct early market tasks: introducing less familiar product formats while developing compelling sensory, nutritional, visual, and price propositions. The study supplies a youth-market diagnostic for food MSMEs and priorities for subsequent prototype and purchase testing.

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1. INTRODUCTION

Sweet potato (*Ipomoea batatas L.*) is both a familiar Philippine food and a promising ingredient for higher-value snacks. Its natural sweetness, adaptable texture, and documented nutrient composition create opportunities for product diversification, but processing a root crop into a new form does not, by itself, create a market. The more consequential question is what consumers recognize, what they value, and how those judgments compare with their existing food-purchasing habits. Sweet potato research has established its nutritional potential (Amagloh et al., 2021; Islam, 2024; Qin et al., 2022), while studies of processed root-crop products emphasize the importance of sensory qualities and price in consumer preference (Nakitto et al., 2022; Pascual et al., 2024). The

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commercial opportunity thus rests in turning a familiar ingredient into a product with an intelligible and attractive consumer proposition.

Value addition is commonly described in terms of formulation, processing, or packaging. For small food enterprises, however, its success also depends on whether buyers notice and appreciate the value created. A visually attractive product may attract interest but remain outside consumers' buying routines; a nutritious ingredient may be valued in principle while taste remains decisive at purchase. This distinction is particularly relevant to new snack formats competing with familiar, inexpensive alternatives. Existing research on food choice identifies sensory appeal, health, convenience, and price as separable considerations rather than interchangeable indicators of demand (Jürkenbeck & Spiller, 2021; Steptoe et al., 1995).

The present study compares three proposed modernized sweet potato delicacies which are Sweet Potato Pillows, Sweet Potato Mochi, and Sweet Potato Buchi among consumers in Iligan City, Philippines. The concepts offer a useful contrast in recognizable snack formats: buchi draws on an established snack category, whereas the names pillows and mochi may require consumers to form newer product expectations. Rather than treating innovation as synonymous with acceptance, the study examines recognition of the named variants, consumption of sweet potato products, reasons for buying, and the importance assigned to innovation, health and nutritional value, visual appeal, and economic value. These observations speak directly to the early commercialization choices of local food enterprises.

Philippine work on sweet potato snacks has generally emphasized formulation and acceptability, while a growing body of local consumer research examines usage, attitudes, perceived attributes, and market acceptance for other foods (Abellana, Bunao, et al., 2026; Pascual et al., 2024; Refardo et al., 2023; Rosario et al., 2026). The research gap is the limited integrated evidence on how recognition of specific modernized sweet potato concepts, existing category consumption, and expected value-added attributes coexist within one young consumer market. By comparing these dimensions, this study identifies where promising product concepts already have a basis for market positioning and where further product communication or testing is needed. The contribution is an empirically grounded account of product recognition and consumer priorities, not a claim that these variables form a tested causal sequence.

Guided by the Usage-Attitude-Image (UAI) approach to market diagnosis, the study aimed to (1) profile the respondents; (2) compare awareness of the three concepts; (3) describe consumption frequency and purchase reasons for sweet potato products; (4) assess the importance assigned to four value-added features; (5) explore demographic differences in recognition, usage, and attribute ratings; and (6) examine the reported associations between variant preference and value-added-feature preference. Together, these objectives connect an emerging food-product opportunity with the practical marketing and product-development decisions faced by micro, small, and medium enterprises (MSMEs).

2. LITERATURE REVIEW

2.1. Usage-Attitude-Image as a Market-Diagnostic Lens

The Usage-Attitude-Image (UAI) approach distinguishes consumers' actions, evaluations, and mental associations (Roberto, 2006). Usage describes what people do; attitudes describe their judgments; and image refers to the associations or meanings attached to an offering. This distinction matters in early-stage food markets because recognition of a product name is not the same as liking a tested product or incorporating it into a buying routine. In related Philippine food research, consumers' usage patterns, attitudes, and product image have been examined as separate but complementary signals for understanding local demand (Abellana, Bunao, et al., 2026).

The present questionnaire measured reported awareness of each named delicacy, general sweet potato consumption and buying reasons, and importance ratings of proposed value-added features. Awareness provides an entry-point indicator of recognition, but does not measure the full associative content of product image. Accordingly, the UAI perspective is used to organize the descriptive market evidence without forcing the observations into an unmeasured image construct or a causal adoption model. Comparing these distinct signals can still help explain what market information is

already available and what questions require prototype-level investigation (Mohammed, 2023; Rai et al., 2023).

2.2. Product Innovation, Familiarity, and Sensory Value

Value-added processing may diversify income opportunities and make sweet potato suitable for flour products, confectionery, baked goods, and new snack applications. Yet the market test of such innovation remains whether the product offers benefits consumers can identify and enjoy. Consumer-led product development has linked sweet potato snack formulation to preferred sensory attributes (Licea-Dominguez et al., 2023), while sensory research shows how cultivar, sweetness, and texture shape the acceptance of sweet potatoes (Lado et al., 2022; Nakitto et al., 2022). In the Philippine setting, preferences for sweet potato and cassava snacks have likewise reflected the interplay of flavor, presentation, and price (Pascual et al., 2024).

Product familiarity can make the offer easier to recognize, especially when consumers encounter a new ingredient-format combination. Buchi, for instance, already functions as a recognizable snack category, whereas sweet potato pillows and mochi may need clearer explanation of filling, texture, and eating occasion. Research on learned packaging cues and exposure to novel foods suggests that recognizable signals can shape expectations before a purchase is made (Baptista & Schifferstein, 2023; Guo et al., 2024; Jiang et al., 2023). This provides a plausible interpretation of differences in recognition, although prior exposure and format familiarity were not independently tested in the present survey.

Sensory appeal is particularly consequential because snack choice is experienced, not merely contemplated. The Food Choice Questionnaire distinguishes sensory appeal from health, familiarity, convenience, and price (Steptoe et al., 1995), and research in academic food environments similarly emphasizes taste and sensory expectations (Imtiyaz et al., 2021). Jürkenbeck and Spiller (2021) examine general food-choice signals rather than sweet potato specifically; their relevance lies in showing why sensory cues may carry immediate weight in the buyer's decision. For sweet potato delicacies, this general perspective complements product-specific evidence on texture and flavor (Licea-Dominguez et al., 2023; Nakitto et al., 2022).

Innovation therefore need not be a departure from a familiar eating experience. It can also be expressed through manageable portions, more convenient preparation, appealing textures, or packaging that clarifies what the food will be like. Evidence from Northern Mindanao bakery enterprises similarly treats product innovation and distribution as linked commercial activities, rather than assuming that new product design alone guarantees growth (Abellana, Jegonia, et al., 2026; Abellana & Alonzo, 2025a, 2025b). This suggests a useful distinction between an enterprise's capacity to innovate and the features consumers actually prioritize when considering a snack.

2.3. Nutritional, Visual, and Economic Value

Health and nutritional value can add meaning to a familiar food ingredient. Sweet potato contains dietary fiber and bioactive compounds, although the amounts and their retention depend on the variety and preparation method (Amagloh et al., 2021; Mekonen et al., 2022; Neela & Fanta, 2019; Qin et al., 2022). Consumers may interpret these associations as desirable features even when nutritional composition has not been verified for an individual recipe. Studies of biofortified or orange-fleshed sweet potato products highlight the value of connecting nutritional information to consumer expectations (Owuor et al., 2022; Rosero et al., 2022).

Perceived health value does not displace the experience of taste or the practical question of price. Evidence on processed orange-fleshed sweet potato products indicates that willingness to pay varies with consumer segment and product characteristics (Nkokelo et al., 2025; Owuor et al., 2022). For a youth-oriented snack market, the central problem is consequently to make nutrition a meaningful addition to a palatable, accessible product rather than a substitute for sensory satisfaction. Studies of local food products and foodservice experiences likewise show how product evaluations arise from several interdependent dimensions of value (Corpuz & Abellana, 2026; Palangan et al., 2025).

Visual appeal helps consumers make an initial judgment before they taste a product. Color, visible ingredients, package material, and serving presentation may signal freshness, quality, and expected flavor (Di Cicco et al., 2021; Motoki et al., 2023; Spence et al., 2022). Studies of packaging

have shown that material and color influence perceived value and willingness to consume, including in categories beyond root crops (Berthold et al., 2024; Carvalho et al., 2025; De Temmerman et al., 2023). Appearance is therefore an important part of market communication, particularly for products with unfamiliar names.

Good design also clarifies the offer. Transparent packaging, accurate imagery, and visual signals about health or texture can affect consumer expectations, though their effects are not necessarily the same across categories (Liang et al., 2023; Peng et al., 2023; Schifferstein et al., 2022). Recent work on social-media recommendation environments further illustrates how perceived premium quality may be shaped by presentation cues (Lim et al., 2026). For modernized sweet potato delicacies, the relevant product-development question is whether appearance communicates a recognizable, appetizing snack without exaggerating attributes not established through product testing.

Economic value concerns the perceived balance between what consumers receive and what they sacrifice to obtain it (Parasuraman et al., 1988). It involves more than the posted price: portion size, taste, health expectations, appearance, and availability may all influence the perceived value of a snack. For young buyers, who may have limited discretionary resources, a modernized presentation is unlikely to justify a price premium unless the benefit is made concrete. Related student-market food studies in Iligan City show the importance of assessing acceptability in the actual population a product hopes to serve (Aban et al., 2026; Cabili et al., 2026).

Food products can also acquire value through their identity as accessible local offerings. Yet commercialization requires coordination among product innovation, distribution, and buyer expectations, especially for smaller enterprises (Abellana, Jegonia, et al., 2026; Abellana & Alonzo, 2025a). Combining recognition, feature importance, and general food-consumption information therefore provides a useful preliminary screening tool before enterprises invest in broader production, packaging, and pricing experiments.

2.4. Research Questions and Exploratory Hypotheses

The descriptive comparisons were complemented by nondirectional, exploratory tests because the literature suggests demographic variation in food evaluations but does not establish consistent differences for these three new formats (Owuor et al., 2022; Rai et al., 2023). At $\alpha = .05$, H1-H3 proposed no differences in product awareness across sex, allowance/income, and occupation, respectively; H4-H6 proposed no differences in utilization across those same groups; and H7-H9 proposed no differences in feature-importance attitudes across those groups. H10 proposed no significant relationship between preferences for each named variant and preferences for its value-added features. Figure 1 organizes the measured categories and the two analytical comparisons. It is a market-diagnostic framework, not a directional structural model.

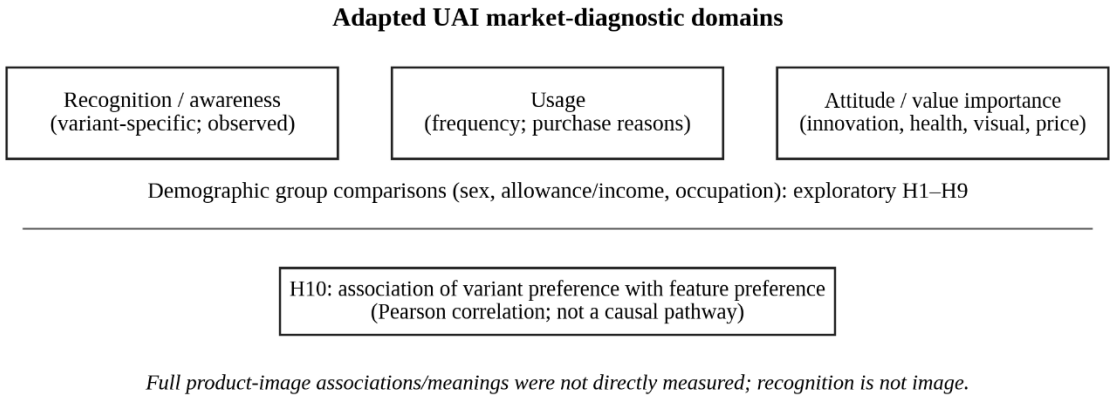


Figure 1. Measured market-diagnostic domains and exploratory group comparisons
Source: Authors' conceptual organization of the original questionnaire; no causal model is implied

3. METHOD

3.1. Research design and setting

A quantitative cross-sectional descriptive-correlational survey was conducted among adult sweet potato consumers in Iligan City, Philippines. The study described recognition of three modernized sweet potato concepts, general sweet potato-product usage, and the importance of value-added attributes, then explored differences across demographic groups and reported correlations between variant and feature preferences. These analyses address consumer perceptions at one point in time rather than the effects of an implemented food-product intervention.

3.2. Respondents and sampling

Purposive recruitment yielded 300 complete responses from adults residing in Iligan City who had consumed sweet potato products and agreed to participate. This sample size provided a substantial descriptive base for a preliminary consumer-market assessment; it was not calculated to represent the city through probability sampling. Respondents were concentrated among students (91.67%) and young adults aged 18-21 years (84.67%), giving the study a particularly clear view of a student-centered snack market. Demographic comparisons involving small nonstudent groups are interpreted as exploratory.

3.3. Instrument and operational measures

The structured questionnaire, informed by Roberto's (2006) UAI market-research approach, gathered demographics; recognition of Sweet Potato Pillows, Mochi, and Buchi; frequency of consumption and multiple-response reasons for buying sweet potato products; and four-point importance ratings for product innovation, health and nutritional value, visual appeal, and economic value for each named concept. The feature ratings describe desirable attributes of the proposed products, not laboratory-confirmed nutrients or sensory scores from a controlled tasting. The questionnaire also included the variant/feature preference responses used in the reported H10 analyses. Expert review and preliminary piloting addressed question clarity. Each feature-by-product rating was treated as an individual item, so a composite-scale alpha coefficient was not required for the descriptive comparisons.

3.4. Survei administration and ethics

Data collection lasted two weeks and combined printed questionnaires with Google Forms. Adults participated voluntarily after receiving study information and providing consent; results were analyzed in aggregate form. The retained analytic summaries do not distinguish responses by administration mode or recruitment venue. Accordingly, the study does not attribute observed results to a specific barangay or mode of administration.

3.5. Statistical treatment

Frequencies and percentages summarized profile, recognition, consumption, and reasons for buying; the last question permitted multiple answers. Weighted means and standard deviations summarized four-point attribute-importance items, with values from 3.25 to 4.00 classified as 'Extremely Important'. One-way ANOVA was used for exploratory sex, income/allowance, and occupation comparisons, and Pearson tests were reported for H10. To remedy inconsistencies in the original summary table, ANOVA p-values in Table 4 were derived from its recorded F-statistics using the nominal group degrees of freedom and n = 300, while the F-statistics themselves were retained. H10 significance levels are reported as recorded; the available summary does not include the underlying correlation coefficients.

4. RESULTS AND DISCUSSION

4.1. Research Results

4.1.1. Respondent Profile and Scope of Inference

Table 1 shows a distinct student-market profile. Of the 300 respondents, 254 (84.67%) were aged 18-21, 275 (91.67%) identified their occupation as student, and 209 (69.67%) reported less than PHP 5,000 in monthly allowance or income. Women represented 58.00% of the respondents. These characteristics matter when interpreting value: the findings predominantly capture the expectations and buying context of younger consumers rather than an evenly distributed cross-section of the city.

Table 1. Socio-demographic profile of respondents (n=300)

Variable	Category	n	%
Age	18-21	254	84.67
	22-26	29	9.67
	27 years or older	17	5.67
Sex assigned at birth	Male	126	42.00
	Female	174	58.00
Occupation	Student	275	91.70
	Employed	15	5.00
	Self-employed	6	2.00
	Unemployed	4	1.30
Monthly allowance/income	Below PHP 5,000	209	69.70
	PHP 5,000-10,000	62	20.70
	PHP 10,001-15,000	12	4.00
	PHP 15,001-25,000	8	2.70
	Above PHP 25,000	9	3.00

Source: Authors' survey. Percentages may differ slightly from 100% because of rounding

4.1.2. Product Awareness: Familiarity Is Concentrated in Buchi

Awareness of the three concepts was markedly uneven. Sweet Potato Buchi was recognized by 136 respondents (45.33%), compared with 35 (11.67%) for Sweet Potato Pillows and 16 (5.33%) for Sweet Potato Mochi. Put differently, fewer than one in eight recognized Pillows and fewer than one in twenty recognized Mochi. Buchi's comparatively strong recognition gives that format a potential starting advantage for communication, while the other two concepts appear to require more basic product introduction. The result concerns recognition of the named formats, not measured brand associations or proven explanations for why recognition differs

4.1.3. Utilization: Taste Dominates Puchase Reasons

Consumption of sweet potato products was mostly occasional (Table 2). More than one-third of respondents reported buying or eating them rarely (36.33%), while 26.00% selected two to three times monthly; only four respondents (1.33%) reported daily consumption. Taste emerged as the most frequently chosen reason for buying (89.67%), well above price (53.00%), perceived health benefits (45.67%), and novelty or product appeal (7.67%). This contrast is commercially important: respondents may appreciate innovation, but their own accounts of choosing sweet potato foods foreground the familiar experience of eating something enjoyable. The frequency figures concern sweet potato products generally, rather than observed sales or repeat purchases of the three proposed delicacies.

Table 2. Consumption frequency and reasons for buying sweet potato products (n = 300)

Domain	Response	n	%
Consumption frequency	Every day	4	1.30
	2-3 times a week	50	16.70
	Once a week	59	19.70
	2-3 times a month	78	26.00
	Rarely	109	36.30
	Never	0	0.00
Reasons for buying*	Taste	269	89.70
	Price	159	53.00
	Health benefits	137	45.70
	Availability	115	38.30
	Appearance	85	28.30
	Texture	79	26.30
	Portion	62	20.70
	Novelty/product appeal	23	7.70

*Multiple responses were allowed; percentages therefore exceed 100% when summed

Source: Authors' survey

4.1.4. Value-Added Attributes: Nutrition and Economic Value Lead

Attribute-importance ratings provide a second, complementary view of consumer priorities (Table 3). All twelve means fell between 3.48 and 3.72 on a four-point scale. Health and nutritional value ranked highest for every format (Pillows, M = 3.72; Mochi and Buchi, M = 3.68), followed consistently by economic value. Visual appeal and product innovation were also considered extremely important, but they were not the leading attributes. The consistency of this ranking across unfamiliar and more recognizable concepts suggests that respondents share a broad expectation of what modernization ought to deliver: better perceived nutritional value at an accessible price, complemented by visual improvement and novelty.

Table 3. Importance of value-added features by modernized concept (n = 300)

Variant	Value-added feature	M	SD
Sweet Potato Pillows	Product innovation	3.50	0.69
	Health and nutritional value	3.72	0.57
	Visual appeal	3.59	0.61
	Economic value	3.61	0.60
Sweet Potato Mochi	Product innovation	3.51	0.71
	Health and nutritional value	3.68	0.61
	Visual appeal	3.55	0.68
	Economic value	3.60	0.63
Sweet Potato Buchi	Product innovation	3.48	0.71
	Health and nutritional value	3.68	0.60
	Visual appeal	3.53	0.67
	Economic value	3.56	0.66

Four-point scale; 3.25-4.00 = Extremely Important

Source: Authors' analysis

4.1.5. Demographic Comparisons and Exploratory Hypothesis Tests

Table 4 presents nine exploratory group comparisons. The reported F-statistics, paired with p-values calculated using the nominal group sizes, indicate no significant differences in awareness or category consumption across sex, allowance/income, or occupation, and no difference in attribute importance by allowance/income. Feature-importance ratings, however, differed by sex ($F = 6.81$, $p = .010$) and occupation ($F = 4.18$, $p = .006$). These findings highlight where evaluations may vary within the young consumer market; the omnibus tests do not identify which group scored higher, and

the occupation categories are unequal in size. H1-H6 and H8 were not rejected, whereas H7 and H9 were rejected at the .05 level.

Table 4. Exploratory comparisons by sex, monthly allowance/income, and occupation (n = 300)

Outcome	Grouping variable	F	p	Decision
Product awareness	Sex assigned at birth	0.87	0.352	Not significant
	Monthly allowance/income	0.63	0.641	Not significant
	Occupation	1.45	0.228	Not significant
Frequency of utilization	Sex assigned at birth	2.65	0.105	Not significant
	Monthly allowance/income	0.63	0.641	Not significant
	Occupation	1.77	0.153	Not significant
Attitude toward value-added features	Sex assigned at birth	6.81	0.010	Significant
	Monthly allowance/income	0.63	0.641	Not significant
	Occupation	4.18	0.006	Significant

p-values reconciled from reported F-statistics using nominal degrees of freedom. Significance threshold $p < .05$

Source: Authors' statistical summary

4.1.6. Variant-Feature Preference Associations (H10)

For H10, the study reported statistically significant Pearson relationships (all $p < .001$) between preference for each named variant and preferences for its value-added features. This result adds a relational dimension to the otherwise descriptive market picture: the product concepts and their proposed attributes were not evaluated as entirely unrelated considerations. However, the retained summary omits signed Pearson r coefficients, so the analysis establishes statistical significance without documenting the direction or strength of association. H10 was rejected on the recorded significance tests, and the interpretation is limited to the presence of an association.

4.2. Discussion

4.2.1. Recognition, Adoption, and the Market for Modernized Delicacies

The central contribution is a clearer picture of an early-stage market for modernized sweet potato foods. Respondents were able to articulate what they valued in the proposed products, yet they did not recognize the concepts equally and consumed sweet potato foods only occasionally. The most visible distinction is Buchi's recognition advantage: its 45.33% awareness was roughly four times the level recorded for Pillows and more than eight times that for Mochi. These figures do not prove why Buchi was more familiar, but they suggest that each concept faces a different immediate marketing task. For Buchi, the challenge is distinguishing a sweet potato version from a recognizable snack format; for Pillows and Mochi, it begins with helping buyers imagine the product itself.

This interpretation is consistent with research showing that established food cues and exposure shape expectations about novel products (Guo et al., 2024; Jiang et al., 2023). It also extends the local UAI literature by demonstrating that awareness of particular product variants cannot be assumed from general familiarity with a food ingredient (Abellana, Bunao, et al., 2026). Importantly, the observed contrast is not an experimentally demonstrated awareness-to-purchase pathway: it reveals different points of departure for product communication. For small manufacturers with limited marketing budgets, that distinction helps prioritize product descriptions, photographs, and consumer tasting opportunities before committing to costly differentiation campaigns.

4.2.2. Taste, Health, and the Hierarchy of Consumer Value

The strongest behavioral clue in the survey was not novelty but taste. Nearly nine in ten respondents selected taste among their reasons for buying sweet potato products, while fewer than one in ten selected novelty or product appeal. This difference gives the study a sharper practical message than the high attitude means alone would provide: young consumers appear to be receptive to product improvement, but the sensory experience remains the most familiar language of value. This is consistent with research on food-choice motives (Imtiyaz et al., 2021; Steptoe et al., 1995) and consumer-guided sweet potato product development (Licea-Dominguez et al., 2023; Nakitto et al., 2022). The study does not imply that the new variants taste poorly; rather, it identifies taste as the leading criterion to preserve and demonstrate when prototypes are tested.

A revealing contrast emerges when stated buying reasons are placed beside feature-importance ratings. Health and nutritional value led the proposed attribute rankings for all three named delicacies, although only 45.67% selected health benefits as a reason for buying sweet potato foods generally. Economic value was the second-ranked feature even as taste dominated reported purchase considerations. Rather than a contradiction, this suggests that consumers use different evaluative lenses: they may aspire to healthier, affordable versions of a food while relying on taste when making familiar purchase decisions. Similar distinctions between consumer-based value perceptions and actual or reported buying behavior have appeared in Philippine food MSME research (Corpuz & Abellana, 2026; Palangan et al., 2025).

This layered notion of value matters for the product proposition. Sweet potato's nutrient profile provides a credible basis for exploring better-for-you formulations, but a nutritional reputation cannot substitute for information about the finished delicacy (Amagloh et al., 2021; Qin et al., 2022). A claim attached to Pillows, Mochi, or Buchi should follow the recipe and processing evidence rather than the root crop's reputation alone. Consumers' relatively high ratings for economic value likewise point to a product that must feel worthwhile at its intended selling price. For a sample in which approximately seven in ten reported less than PHP 5,000 in monthly allowance or income, this is a market reality that deserves to shape subsequent price and portion tests (Nkokelo et al., 2025; Owuor et al., 2022).

In this respect, local bakery research offers an important enterprise-level complement: developing differentiated products can support growth, but innovations also need appropriate distribution and market positioning (Abellana & Alonzo, 2025a, 2025b; Abellana, Jegonia, & Alonzo, 2026). The present consumer evidence helps specify the kind of differentiation worth exploring. Health value may create interest, affordable portions may protect accessibility, and taste may determine whether a modernized delicacy deserves a second purchase. These are testable priorities derived from the observed pattern, not evidence that any particular formulation already delivers all three.

4.2.3. Visual Presentation and Consumer Segments

Visual appeal ranked below nutrition and economic value but remained highly valued for every concept. It can perform a different role from taste: before sampling is possible, appearance offers consumers a way to anticipate what a new snack contains and how it might be eaten. Prior work on food imagery, packaging material, and design illustrates how visual cues shape expectations about product quality and eating experience (Berthold et al., 2024; Di Cicco et al., 2021; Schifferstein et al., 2022). Such cues may be particularly useful for Pillows and Mochi because their low recognition leaves more room for ambiguity. A clear photograph of the cut product or serving format, for example, could communicate the concept more effectively than an abstract premium-looking wrapper.

At the same time, aesthetic modernization should not be confused with premium pricing. Research on packaging and perceived premium quality shows that presentation influences how foods are framed, but those signals must ultimately align with product experience and price (Carvalho et al., 2025; Lim et al., 2026). The low share citing novelty as a buying reason suggests a useful discipline: modern design should make the product appetizing and intelligible, not distract from the familiar ingredient or create expectations it cannot meet.

Demographic comparisons add a further nuance. Awareness and consumption were not significantly differentiated by the surveyed sex, income/allowance, or occupation groups, whereas

feature-importance attitudes differed by sex and occupation. The stronger statistical signal for evaluations than for recognition suggests that demographic segmentation might be more relevant to how young consumers judge value than to whether they have encountered these formats. This distinction is tentative because the group comparisons were omnibus and the nonstudent categories small. Nevertheless, it identifies a useful next question: which specific product attributes are valued differently, and are those differences meaningful when the groups are more evenly represented?

The significant H10 results also connect variant preferences to the importance assigned to value-added features. Without coefficient magnitudes, the results cannot establish which feature drives preference. They do, however, reinforce the premise that product format and perceived benefits should be evaluated together. This provides an empirical starting point for subsequent choice experiments that vary taste, nutrition information, portion, packaging, and price rather than studying a single preferred product in isolation. The approach is aligned with recent local market-acceptability work using prospective consumer evaluation as a preliminary product-development screen (Cabili et al., 2026; Aban et al., 2026).

4.2.4. Implications for Local Food MSMEs

The findings support a staged product-development and communication agenda. The first task is to help consumers recognize the intended product, particularly for Pillows and Mochi. The second is to make its eating experience compelling through an acceptable flavor and texture. The third is to demonstrate the added value that respondents repeatedly prioritized, nutritional meaning and economic worth without relying on vague health claims or a novelty premium. Product photography, clear descriptions, small-scale tasting, and price testing are practical ways to investigate these priorities before increasing production capacity. These are informed propositions for pilot testing, not effects directly estimated by the survey.

A follow-up market test could compare the three formats at realistic price points, with standardized photographs and sensory samples, while recording actual choice and willingness to purchase. Comparing the outcomes for students and other occupational groups would also help determine whether the demographic variations observed in attribute importance persist beyond this sample. Such a design would convert the present market diagnosis into a more decision-ready commercialization assessment while retaining the perspective of local enterprises working with limited resources.

4.2.5. Study Scope and Research Opportunities

The study's strengths are its parallel assessment of three concepts, detailed feature-level ratings, and evidence from an identifiable youth-oriented market. Its boundaries follow from the purposive, predominantly student sample; single-item feature evaluations; and the absence of controlled product exposures, mode-specific analyses, and complete H10 effect-size outputs. Recognition of a named product is not a full image measure, nor is category-level consumption the same as documented repeat purchase of a particular prototype. Future research can address these matters through balanced recruitment, standardized stimuli, validated multi-item measures where constructs require them, and direct choice or sensory tests. These limitations specify the next research step without reducing the value of the present descriptive and comparative findings.

5. CONCLUSION

This study shows that modernization of sweet potato delicacies is not a single consumer proposition. Buchi entered the surveyed youth market with substantially greater recognition than Pillows and Mochi, while sweet potato-product consumption remained occasional and taste dominated stated buying reasons. Yet all three named concepts attracted consistently high importance ratings for nutritional value, affordability, visual appeal, and innovation. The contribution lies in the distinction between what young consumers already recognize and do, and what they would value in more developed product offerings.

For the demographic objectives, awareness and usage did not show significant differences across the tested groups, while attribute-importance ratings varied by sex and occupation. The reported H10 tests also indicated associations between variant preference and value-added-feature

preference. Together, these results point toward a product-development priority: retain the taste appeal of sweet potato snacks, make unfamiliar concepts easy to understand, and test whether improved nutrition communication, presentation, and economic value translate into product choice. For local food MSMEs, the study offers a practical basis for designing the next round of prototypes and market trials rather than assuming that novelty alone guarantees demand. The findings are most informative for a student-centered Iligan market and provide a focused starting point for further validation across more diverse consumer groups.

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, Writing – Review & Editing.
M.A.C.: Conceptualization, Investigation, Data Curation, Writing – Original Draft, Writing – Review & Editing.
A.M.M.: Investigation, Data Curation, Methodology, Writing – Original Draft.
L.A.E.: Investigation, Data Curation, Visualization, Writing – Original Draft.
R.A.: Investigation, Resources, Data Curation, Writing – Original Draft.
A.D.A.: Investigation, Data Curation, Visualization, Writing – Original Draft, Writing – Review & Editing.

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Informed Consent

Informed consent was obtained from all participants before survey completion.

Ethical Approval

The study involved adult participants in minimal-risk, non-interventional academic market research. The archived study record supplied for manuscript preparation did not contain an institutional ethics committee reference number. The authors should ensure that the applicable approval or exemption documentation is consistent with institutional requirements before submission.

Data Availability

De-identified data supporting the findings are available from the corresponding author, Jupert Jasser G. Abellana, upon reasonable request, subject to institutional and participant-confidentiality requirements.

Declaration of Generative AI and AI-assisted Technologies

During preparation of the revised manuscript, the authors used ChatGPT (GPT-5.6 Sol, OpenAI) for language editing, structural organization, literature-search assistance, and formatting support. The authors reviewed and verified the manuscript content, retained responsibility for the reported data and interpretations, and did not use AI to generate or alter the study results.

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