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ACCEPTABILITY OF KUNDOL (WINTER MELON) TART

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Abstract: **Traditional Filipino delicacies face growing competition from modern food trends, particularly among young adults in university settings. Kundol tart, a locally made dessert from winter melon, may struggle to gain acceptance without understanding the sensory preferences of its target consumers. This study explores the acceptability of Kundol tart among Salettinian students by evaluating key attributes such as taste, texture, appearance, packaging, and overall appeal. The findings aim to guide local vendors and entrepreneurs in aligning traditional food offerings with the evolving preferences of university students. This study utilized a quasi-experimental design to assess the acceptability of Kundol tart among Salettinian students. A structured survey questionnaire was used to gather quantitative data on students' perceptions of the product's taste, mouthfeel/after taste, texture, color/appearance, uniformity in size, packaging, and purchase intent. The survey was administered to a purposively selected sample of students from the university. Prior to full distribution, the questionnaire was pilot-tested for clarity and reliability.Descriptive and inferential statistical tools such as mean, Kruskal walis, mann whitney and post hoc analysis were applied to analyze the data using SPSS. Ethical considerations, including informed consent and participant confidentiality, were strictly observed throughout the research process.**

The study concluded that Kundol Tart is highly acceptable among Salettinian students, showing strong favorable ratings across sensory attributes such as taste, mouthfeel, texture, appearance, size uniformity, and packaging.

The product also demonstrated promising market potential, with students expressing willingness to repurchase and recommend it. These findings highlight Kundol Tart's viability as a culturally inspired and market-ready product suited for young consumers. To further improve its quality and competitiveness, it is recommended to refine the tart crust for better texture and consistency, enhance browning techniques, and adjust the filling for improved mouthfeel. Additionally, the product's packaging should be made more attractive to boost appeal, and further research is encouraged to explore broader market segmentation and related variables to support its expansion beyond the university setting.

Keywords: **Kundol Tart, Sensory Evaluation, Marketability, Acceptability of Market potential, Winter Melon.**

1. INTRODUCTION

Food preferences among consumers, especially young adults, are influenced by a variety of factors, including taste, mouthfeel/after taste, color or appearance, texture, uniformity in size, and packaging. In university environments, such as the University of La Salette, students are exposed to numerous food options. However, traditional Filipino delicacies, like Kundol Tart, which is known for its chewy texture and unique flavor, may face challenges in gaining popularity unless their acceptability is assessed based on these sensory attributes. Despite its cultural significance, there is a notable lack of research examining the acceptability of Kundol tart among university students, highlighting the importance of this study.

This research aims to evaluate the acceptability of Kundol tart among Salettinian students, specifically exploring how they perceive its taste, mouthfeel/after taste, texture, color or appearance, uniformity in size, and packaging. Understanding these factors is vital for businesses and entrepreneurs looking to introduce this traditional dessert into the student market, where food choices are shaped by cultural, economic, and sensory preferences.

For local food vendors promoting traditional Filipino treats like Kundol tart, it is essential to align their offerings with the preferences and purchasing power of their target consumers. By assessing students' perceptions of Kundol tart,including its sensory appeal and price, this study can help determine its potential marketability within the university. Several studies have highlighted the importance of taste, price, and appearance in consumer food choices. According to Nogueira and Vilela (2020), taste remains the primary factor in consumer decision-making, particularly for desserts. Price is another critical factor, especially among students who often face financial limitations. Additionally, the visual appeal of food plays a significant role in attracting consumers, as aesthetically pleasing food enhances their overall eating experience Santos & Martins (2019). However, there is limited research on the specific acceptability of Kundol tart in the context of university students, making this study both relevant and timely.

While previous studies have examined the impact of taste, price, and appearance on consumer behavior, few have focused on traditional Filipino desserts such as Kundol tart. Furthermore, there is a lack of research on how these factors influence food choices among university students, particularly those at the University of La Salette. This gap in existing literature underscores the need for focused research on how Kundol tart is received by this specific demographic.

This study is significant as it offers insights into student preferences, which can help local food entrepreneurs refine their marketing strategies and improve the appeal of Kundol tart. By understanding how students perceive the taste and appearance of this product, businesses can make informed decisions regarding its development and promotion.

The primary goal of this study is to assess the acceptability of Kundol tart among Salettinian students in terms of its taste, mouthfeel/after taste, texture, color or appearance, uniformity in size and packaging. The findings will provide valuable information for local vendors and entrepreneurs looking to introduce traditional desserts to a modern student market. Moreover, this research will fill a gap in the existing literature by providing empirical data on the factors influencing students' preferences for traditional Filipino foods.

2. BACKGROUND OF THE STUDY

Kundol, also known as winter melon or ash gourd, is a large gourd with smooth, pale green skin native to Southeast Asia. It is increasingly recognized worldwide for its culinary versatility and health benefits. Although Kundol (Benincasa hispida) is classified as a fruit, it is commonly used as a vegetable in cooking. Its flesh, which is crisp and mildly sweet like cucumber, softens when cooked, making it ideal for use in soups, stews, and stir-fries. Remarkably, every part of the Kundol is edible, including its skin and seeds. Nutritionally, Kundol is rich in vitamins C and B, potassium, and dietary fiber. Its high-water content makes it particularly valuable in maintaining hydration, especially in warmer climates. Known for its antioxidant properties and potential to support respiratory health, Kundol is also praised as a weight-loss food due to its fiber content, which helps promote a sense of fullness, thereby reducing the likelihood of overeating.

Kundol's subtle taste, which blends mild sweetness with a hint of cucumber, has made it a versatile ingredient in various dishes. It is found in both regular grocery stores and Asian markets, and it is commonly used in soups, stirfries, curries, and even raw in salads, where it provides a refreshing crunch. Recent innovations have included the use of Kundol in the development of products such as tarts and juices.

Despite its culinary appeal, traditional Filipino foods like Kundol tart face challenges in competing with modern food options, especially in university settings where students' food choices are influenced by various factors such as taste, mouthfeel/after taste, texture, color or appearance, uniformity in size and packaging. The balance between food quality and affordability is crucial for university students, who often have to consider their limited budgets when choosing meals. Understanding the preferences of Salettinian students regarding traditional delicacies such as Kundol tart can offer valuable insights into the potential marketability of these local foods within the university setting.

Food preferences among university students are shaped not only by economic constraints but also by cultural backgrounds. Traditional foods are often viewed as a reflection of local identity, yet modern dietary trends prioritize convenience and visual appeal, sometimes leaving traditional foods like Kundol tart marginalized unless their acceptability is reassessed. This shift in preferences poses a challenge for traditional Filipino foods, making it necessary to evaluate whether such foods still appeal to younger generations. This study seeks to fill this gap by assessing how Salettinian students perceive the sensory qualities of Kundol tart.

Previous studies have shown that consumer acceptance of food products is primarily determined by taste and texture, with appearance playing a secondary role. In particular, taste is often regarded as the most critical factor in the acceptance of desserts and sweets (Nogueira & Vilela, 2020). The visual appeal of food also plays a crucial role in enhancing the overall eating experience. However, limited research has been conducted on the specific acceptability of traditional Filipino desserts like Kundol tart, especially among university students. Most studies focus on mainstream food products, leaving a gap in the literature regarding traditional foods.

This research is significant because it aims to bridge the gap between traditional and modern food preferences by examining the acceptability of Kundol tart among university students. By focusing on the key sensory attributes—taste, mouthfeel/after taste, texture, color or appearance, and flavor—this study will offer valuable insights for local vendors and food producers, enabling them to adapt their products to better meet the needs of their target market. Additionally, it will contribute to the broader discussion on the preservation and marketability of traditional Filipino desserts in an increasingly competitive food industry.

The results of this study will provide actionable insights for vendors, helping them improve the marketability of Kundol tart. Furthermore, the findings will contribute valuable data to the academic discourse surrounding the consumption of traditional foods in university settings, providing a better understanding of students' food preferences and aiding in the preservation of Filipino culinary heritage.

Research Questions

1. What is the profile of respondents in terms of:
    1.1. Age
    1.2. Sex
2. To what extent the sensory acceptability of Kundol Tart based on sensory attributes in
    2.1. Taste
    2.2. Mouthfeel/After Taste
    2.3. Texture
    2.4. Color and Appearance
    2.5. Uniformity in Size
    2.6. Packaging
3. Is there any significant difference between the sensory attributes and demographic Profile of the Respondents?
4. To what extent is the market potential and purchase intent of the respondents?
5. Is there any significant difference when grouped according to demographic profile of the respondents and market potential and purchase intent of the respondents?

Significance of the Study

This study on the development and assessment of Kundol tart seeks to benefit the following groups:

Preservation of Cultural Heritage. The research supports the preservation of traditional Filipino desserts, like Kundol tart, by exploring its acceptability among Salettinian students. It emphasizes the importance of maintaining cultural identity through food, especially in modern educational settings. This study ensures that traditional Filipino foods continue to be relevant and appreciated, allowing students to connect with their cultural heritage through their food choices.

Business Owners. The study provides essential insights for business owners aiming to enhance the product and develop effective marketing strategies for traditional Filipino dishes such as Kundol tart. By understanding the preferences of university students, business owners can tailor their products to align with the tastes and purchasing habits of this demographic. This enables businesses to become more competitive in a market that increasingly values convenience and visually appealing meals.

Customers. The research helps vendors better understand consumer preferences, particularly among university students. By recognizing the tastes, appearance, and food experiences of young consumers, vendors can offer food products that meet their needs and desires. This can lead to a more satisfying customer experience and greater product acceptance, as the offerings would be aligned with students' expectations.

Local Farmers. This study is valuable for local farmers, as it highlights the potential of Kundol as a locally sourced product incorporated into a popular dessert format. By promoting Kundol tart, local farmers can tap into a new market, offering a delicious and culturally relevant product. This can provide a sustainable income while supporting the local agricultural industry and contributing to the long-term sustainability of local farming practices.

Researchers. This study offers critical empirical data on the factors that influence university students' acceptance of traditional meals, particularly Filipino desserts like Kundol tart. Researchers can use the results to further investigate the dynamics of food preferences in educational settings, expanding the knowledge base on the factors that shape food choices among young adults. This will help improve future studies on food consumption behavior within academic environments.

Future Researchers. The outcomes of this study will serve as a foundation for future research on the acceptance and adaptation of traditional foods. By offering insights into how traditional Filipino foods can maintain their cultural relevance while evolving to meet modern market demands, future researchers can continue exploring the balance between tradition and innovation in the food industry. This will help guide the development of strategies to ensure the survival and success of traditional foods in contemporary culinary markets.

Theoretical Background Theoretical Framework

The acceptability of food products, including traditional delicacies like Kundol tart, can be understood through various theories that explain consumer behavior and sensory preferences. In this study, the Flavor-Preference Theory will be the primary framework used to assess how different sensory attributes such as taste, mouthfeel/after taste, texture, color or appearance, and packaging affect the acceptance of Kundol tart among university students.

Flavor-Preference Theory suggests that food preferences are shaped by a combination of sensory experiences, physiological responses, and learned associations. According to Nogueira and Vilela (2020), what people find tasty is often influenced by past experiences, cultural background, and personal preferences. For Kundol tart, these factors are particularly relevant because its taste, texture, and overall appeal are influenced by Filipino culinary traditions and may invoke cultural memories or associations. Students from the University of La Salette may be more likely to appreciate the taste and appearance of Kundol tart due to its cultural significance in Filipino cuisine.

Taste is one of the most important sensory factors influencing food choices. In the case of Kundol tart, its mild sweetness, flavor balance, and the overall "yum factor" will be crucial in determining its appeal. Since traditional Filipino desserts often feature subtle sweetness and comforting flavors, students may find Kundol tart attractive if it offers a pleasant sensory experience that aligns with their taste preferences. Flavor-Preference Theory indicates that the more the product aligns with students' expectations, based on prior cultural exposure, the more likely they are to find it acceptable (Nogueira & Vilela, 2020).

Appearance plays a significant role in the initial decision to try a food product. As suggested by Santos and Martins (2019), the visual appeal of food influences consumers' expectations about taste and quality. For Kundol tart, its color, shape, and overall presentation are important for creating a positive first impression. A well-designed, visually appealing product will likely make students more inclined to purchase and try it, even if they are unfamiliar with the dessert itself. The Flavor-Preference Theory further emphasizes that food appearance can enhance the overall eating experience, making it a key factor in the acceptance of Kundol tart.

Texture, another critical sensory attribute, affects both the sensory experience and consumer enjoyment. For Kundol tart, its chewy texture, which is different from other desserts commonly available on the market, can be a distinctive feature. The texture can influence the overall eating experience, and consumers are more likely to enjoy foods with textures that match their expectations. As Kundol tart features a unique chewy consistency, its acceptability will depend on how well students respond to this textural quality.

Packaging and Labeling also play an essential role in consumer decision-making. Packaging is often the first point of contact with potential customers and can influence their perception of the product. Well-designed, informative packaging can attract consumers by highlighting the traditional and health-conscious aspects of Kundol tart, such as its natural ingredients and

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low-calorie content. Effective labeling that provides information about the product's origin and benefits can enhance trust and further drive its acceptability among university students.

Finally, Flavor-Preference Theory suggests that repeated exposure to a food product, particularly in culturally significant or comforting contexts, can lead to a stronger preference over time. Kundol, or winter melon, is used in various traditional Filipino dishes, and this familiarity can foster a sense of nostalgia and cultural attachment. The positive associations created through repeated exposure to similar flavors and textures in other Filipino dishes can influence the acceptance of Kundol tart. Additionally, the low-calorie, high-fiber, and nutrient rich content of Kundol aligns with modern health-conscious dietary trends, enhancing its appeal to young adults who prioritize healthy eating.

The Flavor-Preference Theory provides a comprehensive framework for understanding how sensory attributes, such as taste, appearance, texture, aroma, and flavor, influence the acceptability of Kundol tart. This theoretical approach helps explain why students at the University of La Salette may respond positively to the dessert, especially given its cultural relevance and the sensory experience it provides. By applying this theory, this study aims to assess the factors that contribute to the acceptance of Kundol tart, offering valuable insights for vendors and food producers looking to introduce this traditional delicacy to a modern student market.

Conceptual Framework

The conceptual framework of this study on Kundol Tart focuses on evaluating the acceptability of the tart among Salettinian students, structured into three key components: Input, Process, and Output.

In the Input, this phase involves identifying the sensory attributes taste, mouthfeel/after taste, texture, color/ appearance, and packaging that influence the acceptability of the Kundol Tart. These attributes are critical in understanding how students perceive the product, forming the foundation for evaluating its marketability and consumer acceptance within the university setting.

In the Process, the methodology includes administering a survey questionnaire to gather feedback from students regarding their preferences and satisfaction levels with the Kundol Tart. Additionally, the preparation of Kundol Tart will be conducted using a standardized set of ingredients: 3 cups of all-purpose flour, 3 cups kundol, 8 egg, 2 tsp vanila extract, 200g butter, 3 tbs white sugar and 1 cup brown sugar.

This ensures the development of a consistent product for evaluation, aligning with consumer expectations and refining the tart based on the gathered feedback.

In the Output, the anticipated outcome of the study is a Kundol Tart that satisfies the preferences of the students, ensuring it is both acceptable and marketable within the university context. By aligning the product with sensory preferences and feedback, this framework aims to position Kundol Tart as a viable option in the student food market.

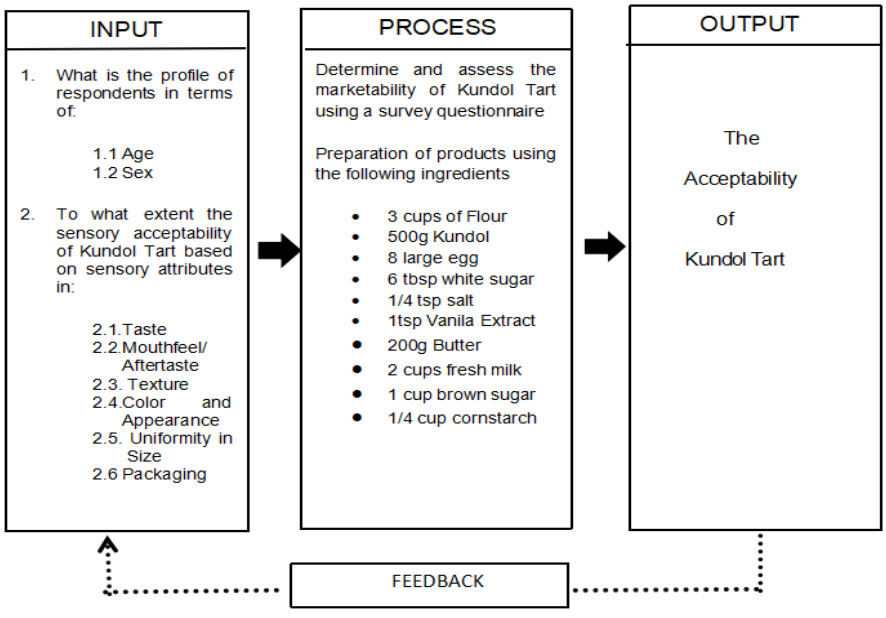

Figure 1. Conceptual Framework of the Study

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3. LITERATURE REVIEW

This chapter presents the relevant literature that the researcher considered in strengthening the importance of the present study. Kundol or winter melon is a versatile fruit known for its subtle flavor and nutritional benefits, offering a unique opportunity to create a novel snack: Kundol Tart. This study aims to explore the feasibility of kundol tart as a delicious, convenient, and health-oriented snack for consumers seeking nutritious options.

Kundol Tart

Winter melon, known also as kundol is an adaptable ingredient with frequent applications both in savory dishes and sweets (Ibragimova and Beshimov, 2025). The slightly sweet taste of the fruit and firmness provide great opportunities for using it in creating new desserts, for example, kundol tart. Clark (2019) identifies that sweet and tart balance is a significant aspect of creating a balanced pastry, which resonates with the incorporation of kundol in tarts to introduce natural, delicate sweetness. Including kundol in tart filling, pastry chefs can obtain a unique flavor that is refreshing and rich, appealing to customers looking for an innovative variation of classic tarts. In addition, Reichl (2019) points out that dried or cooked fruits, such as kundol, can add depth of flavor to pastries by concentrating their natural sweetness. Kundol, when cooked, softens into a creamy texture whose contrast with the crunch of tart crust makes it appealing. The combination of these textures adds to the attractiveness of kundol tart, making it a specialty dessert. Moreover, the versatility of kundol serves it well as a key ingredient for pastry chefs who want to innovate with new flavors while holding on to traditional tart forms.

Also, according to Bertelsen's (2022) hypothesis, traditional pastry recipes generally include fruit filling with sweet and sour ingredients, which serves to enhance the overall flavor experience. The addition of kundol in tarting adheres to this practice by adding a slightly sweet and earthy flavor that complements other ingredients. Goldfield (2021) recognizes that winter melon is applied quite often in Asian cuisine because it will absorb flavor from the environment it is in, hence making it ideal to serve as a base for custard-like filling for tarts. In kundol tart, the harmony between the sweetened kundol puree and buttery crust is tolerable to most people. Furthermore, the slow cooking process that comes with preparing kundol also gives it a caramelized flavor that adds to the tart overall. Light spices like cinnamon or nutmeg may also add even more complexity to the tart and make it an ideal dessert for most events. With its smooth texture and shape retention when cooked, kundol remains a popular ingredient in tarts making, offering an unorthodox texture and taste.

Furthermore, Khairatun (2020) explains how global food trends have helped modernize traditional sweets using locally available ingredients. Kundol tart is a good example of this with the use of winter melon, a common ingredient in many Asian recipes, being incorporated into a Western-type pastry. It is argued that customer tastes tend to favor tarts which combine natural fruit taste with an organized crust. This is reflected in the popularity of kundol tart, for instance. The subtle but distinct flavor of kundol makes it easily mix with cream or egg-based tarts fillings to produce a high-class dessert. Moreover, kundol's natural moisture also keeps the tart soft and does not let it dry out in the oven. The versatility of kundol tart is not limited to taste, since it can simply be modified with the addition of other sweetener ingredients such as honey or condensed milk to taste. The flexibility of kundol tart thus makes it highly sought after as a dessert where one can desire a naturally sweet, fruit-centered tart.

In addition, Drake (2018) emphasizes that fruit tarts tend to have to be prepared very carefully so the flavors can have a perfect balance, especially when working with mild-tasting fruits like kundol. According to Robertson (2018), the beauty of the pastry lies in finding the perfect consistency between filling and crust, which can be seen in well-prepared kundol tarts. The tender quality of kundol requires it to be cooked down into a smooth puree so that there is a uniform texture throughout the tart. Condensed milk or coconut milk may be added in some of these variations so that the richness of the filling is complemented by the naturally subdued sweetness of the kundol. Moreover, the application of a buttery, flaky crust gives way to the softness of the filling, creating an equally balanced dessert. The slow baking processes ensure that the flavors combine, and in every bite of the tart, there is a harmonious mix of textures and flavors. By opting for the proper spices and sweeteners, pastry chefs are also able to further increase the complexity of the flavor of kundol tart.

Finally, Chan (2025) explains how ancient desserts have adapted by the use of locally available fruits, which is more sustainable and convenient. Incorporating kundol in tarts not only enhances the gastronomic value of the fruit but also motivates its use beyond customary methods of preparation. Reichl (2019) identifies those fruits such as winter melon, if innovatively used, can enhance pastry-making by offering new textures and flavors. Kundol's delicate flavor makes it an ideal base for sweet and slightly savory forms of tarts, and experimentation is limitless. In addition, the desire for natural, minimally processed foods has helped the rise in popularity of fruit desserts such as kundol tart. The dessert is not only delicious but also fulfills the need for less-processed, healthier sweets. The integration of classical pastry making with local-inspired ingredients ensures kundol tart becomes and continues to be a classic and modern dessert option.

Winter Melon Taste

Winter melon tart is unique and pleasant in taste and will be appreciated by those who prefer savory desserts (Christian, 2021). The flavors of winter melon are said to be subtle and mild and provide a perfect base for making tarts that are neither too sweet nor too bitter. Winter melon is a versatile ingredient used across many different cuisines, highlighting its versatility and how it can be paired with a wide variety of flavors. This makes it a great addition for those trying out strange tart, as it provides a soft sweetness and refreshing texture. In addition, the use of winter melon in tart preparation is on the rise since more chefs and home cooks are discovering its culinary uses. This ingredient absorbs the flavors around it while retaining its own; hence, it is perfect for mixing with different recipes, like tarts. It is through this connection between the taste and texture that winter melon tart has become popular in international cuisines.

Swamy and Nath (2020) further look into the various culinary melons, like Mangalore melon, that differ in texture and flavor compared to the common dessert melons. These culinary melons are used in savory dishes, and their flavor profiles range from mildly sweet to slightly tart. According to Davranovna, 2020, cultivation of winter melon spread into different climates which cause changes in flavor and texture of melons due to regional climate differences. Melons grown in other climates especially in the tropics and subtropics, bring in special taste that makes it an excellent one to try with tarts and so many dishes. Winter melon is one of those crops that can thrive under diverse climatic conditions but can always offer the same taste. This quality has made winter melon tart very attractive for culinary innovation. Since the melon can always bring balance to any sweet or savory recipe, its inherent ability makes the melon a valuable asset in developing regional dishes. Its regional characteristics often determine the ways and means of using them. As winter melon becomes more popular, the discovery of its taste and versatility will probably call for even more creative recipes.

On the other hand, Freeman et al. (2022) state that among different kinds of winter melon, taste is quite disparate and is usually bitter Indian varieties more than Chinese one. Therefore, the variety in terms of taste is considered for winter melon usage or perception in terms of cooking applications, especially while making desserts Further report that the quality of winter melon, especially the flavor, is dependent on growing practices and climate conditions. Some varieties of winter melon have better taste, thus more favorable for certain recipes such as tarts. The differences in flavor between varieties mean that one must choose the appropriate variety when preparing dishes that call for a specific taste. This means that the selection of the best winter melon becomes essential to attaining the desired results in recipes like winter melon tart. While the bitterest varieties aren't ideal for deserts, the sweetest versions are suited for sweet tart and make a subtle refreshing taste. If one is ever looking to make the best use of winter melon in a culinary pursuit then he/she needs to grasp these distinctions.

Furthermore, the opinion that winter melon is highly sought after in most dishes due to its moistness, which gives it that specific texture. Winter melon becomes very smooth and therefore does not pose any challenge in a mixture. It can then be used in both tart and soup preparations. According to Swamy (2022), winter melon is also added due to the texture and flavor, which it imparts on the final product. Its wide acceptance in most traditional dishes comes from the fact that in South Asia, it is prepared both savory and sweet recipes. Moreover, it holds the water content, so when cooked, it tends not to lose its texture as most foods do, thereby giving tart recipes an enhanced feature. Winter melon is very complementing towards both sweet flavors and savory flavors and thus proves very indispensable as an ingredient of many cuisines. Such multifunctional ability contributes the most toward winter melon tart making it an appealing novel dish. As winter melon becomes one of the sweet ingredients through desserts, certainly, we will notice more new usage and innovation around this multifunctional winter melon product in both savoury dishes and in sweet ones also. The continued development of its qualities will determine how people use winter melon in the future.

Lastly, Freeman et al. (2021) described the culinary uses of winter melon and how compatible it is with any type of flavor profile, so it is a good filling for tarts. They argue that the mild flavor of the melon makes it very complementary with spices and other seasonings when creating a dish such as winter melon tart. According to Elliott (2023), the texture of winter melon is unique in such a way that it can easily be changed into different dishes, savory or sweet, without losing its identity. Winter melon is a fascinating ingredient for food discovery, given the versatility that can be shown in a number of different recipes, particularly tarts. The more chefs play around with winter melon, the more it will be applied in tart making. Winter melon tart has really topped the charts in culinary creativity for its new flavors and texture that it has provided the table, where in a dessert, its subtleness in sweetness and light delicate texture makes it stand tall and strong. Winter melon is on its way of making its way into the kitchens that are creating innovative foods among cultures. The adaptation of winter melon in desserts will likely result in even more exciting innovations in the culinary arts world.

Winter Melon Tart Appearance

Winter melon also referred to as Benincasa hispida, is one versatile ingredient that often is seen in Asian recipes due to its mild flavor and a variety of health benefits it provides. Its incorporation, traditionally, in soups and beverages makes the development of desserts highly unexplored. Inclusion in tart recipes introduces a fresh twist, exploiting the gentle sweetness and texture of the fruit. A. cooked winter melon is soft and gelatinous in texture, making a good filling for tarts; the combination is also appealing to health-conscious consumers looking for healthy alternatives in indulgent products. A winter melon tart stands for a harmonious blend of tradition and innovation, which in turn offers something familiar yet new for dessert lovers. Dessert innovators can innovate the traditional tart idea when they re-imagine winter melon as a dessert component.

Additionally, tart inclusion of winter melon also resonates with a global need for functional food that helps in achieving better health and wellness. Drake, L. T. (2018). suggest the need to introduce nutrient-dense, low-calorie food items into modern diets, especially in desserts. Winter melon is a good choice because it is low in calories and rich in vitamins. It can be made sweet by honey or little sugar when used in tarts, which would attract the health-conscious consumer. According to Andersen, Brockhoff, & Hyldig (2019), neutral taste profile enables the versatility in flavor enhancement through aromatic spice infusion or citrus zest infusing, among others. Such flexibility opens it up to diverse tastes. A winter melon tart also can be adjusted to a variety of diets like veganism or gluten-free diet based on the use of substituted ingredients. The tart is light, thin-filled, and very sophisticated; it can be prepared for formal gatherings or used just to indulge. In all its visual appeal and nutrition, it makes up the best dessert choice.

Winter melon tart also comes with a potential difficulty: the ingredient introduces something new to consumers that not many are willing to adopt as part of their dietary lifestyle. According to Niers (2024)., consumer unfamiliarity with winter melon desserts may create skepticism for those consumers who are more familiar with the traditional flavors of tart such as strawberry or blueberry. In this regard, marketing should focus on its uniqueness: the origin and health benefits. Kurzer (2019). recommend that the presentation of a sample or even a session on winter melon tart in cooking workshops would heighten consumer interest and likelihood to accept this unusual dessert. Another setback is the perfect texture for the filling, as the high moisture content of winter melon may cause texture issues. Techniques in cooking like drawing out the liquid from fruits or mixing it with fillers such as cornstarch can help with the matter. These challenges will call for focused interventions from food innovationists and marketers, but the benefits make it a journey worth taking.

Furthermore, the cultural significance of winter melon in Asian cuisine affords an opportunity to market this tart as a product bridge between traditional and modernizing culinary practices. According to Preetha & Lazarus (2024), culturally heritage foods strongly appeal to people in diaspora seeking relationships with their roots. By presenting winter melon tart as a reinterpretation of classic Asian flavors, the dish can resonate with broad audiences. According to Lopes & Hiray (2024), this element can be enhanced further with its historical use in festivals and celebrations. The tart might be styled to give more traditional motifs, such as decorative crusts from Asian artistry. Serving this dessert at a cultural event or in one of the fusion restaurants further accentuates its appeal because, as a symbol of food innovations, it is successful where creativity and authenticity meet each other out. It should respect its place while embracing the rest of global trends. Thus, with winter melon tart lies the possibility of achieving fame as a signature dessert amidst cultural diversity.

Lastly, winter melon tart is an eco-friendly dessert, fitting into the recent trend of green food consumption. Terpstra et al. (2020) consider winter melon a crop that does not require much and is able to survive easily, so it is a sustainable ingredient. When used in tarts, these creations further the cause of environmentally sustainable farming. Liu, S., Liu, Y. Wang & Zhang (2022). suggest a locally sourced seasonal ingredient-based approach in order to not increase the carbon footprint much, an aspect that finds perfect synchronization with the agrarian profile of winter melon. This sustainability component can also be used to brand appeal to the growing eco-aware consumer. Besides, making use of extra ripe or damaged winter melon for tart filling can help tackle food wastage. That is, winter melon tart, aside from appeasing hunger, encourages responsibility for the environment, making it a dessert consistent with contemporary values.

Winter Melon tart Texture

Alam, M. K., Jamal, M. A. H. M., Ajam, M., & Islam, M. R. (2021) found that various parts of winter melon, such as Benincasa hispida, have remarkable antimicrobial properties, particularly the skin and waxy coating. Extracts of these portions, when treated with several solvents, such as methanol and ethyl acetate, had good antibacterial activity against certain pathogens, such as Bacillus subtilis and Escherichia coli. Similarly, the antifungal activities were significant against Fusarium oxysporum, though some fungal strains such as Aspergillus niger exhibited no inhibition. This again shows that

winter melon can be a good source of natural antimicrobial agents. In addition, its MIC was found to be as low as 128 µg/ml, which again proves the potency of the agent. Bai et al. (2023) further suggest that fruit obtained from ASD methods have winter melon stored with more significant physical stability and nutritional compounds as compared to conventionally produced fruit. These findings therefore underlie the promising utility of winter melon in nutritional as well as medicinal applications through its antimicrobial as well as nutrient preserving properties.

Further, Bai et al. (2023) found that ASD-treated winter melons have lower volatile compounds that impact the flavor negatively but increase the nutritional compounds such as vitamin B5 and cytidine. Such characteristics indicate that winter melon is capable of adapting to sustainable agriculture and quality and stability over long periods of storage. Alsaadi and Abass (2020) mentioned that winter melon was known in Ayurvedic as well as Sri Lankan medicine. It has more than one medicinal use to cure diseases like urinary disorders, gastritis, and even asthma. Its peel and pulp, seeds, or waxy coating are applicable for the above diseases and further emphasizes its importance within traditional medicine and modern nutritional science. The adaptability of winter melon to diverse cultivation methods and the wide medicinal use of the plant strengthen its relevance in sustainable agriculture and healthcare.

Lastly, Islam et al. (2021) reported that winter melon contains bioactive compounds with anti-inflammatory and anticancer properties, which contributes to its therapeutic importance. Such compounds include flavonoids and glycosides, which are known for having strong antioxidant effects. Zhi-jun et al. (2021) further elaborated on it as it relates to its part in the development of floral structures, showing how the structural variations enhance reproductive success. Here comes the connection between the attributes of structure and chemicals-a testament to the resiliency of the plant, as well as ecological benefit. Winter melon has been a staple in various forms across Asia for consumption, both in diets and remedies. Its ability to preserve nutritional quality over long storage duration's, in addition to its therapeutic benefits, makes it a good candidate for a functional food. All these findings point toward the multiple uses of winter melon, from traditional medicine to promising sustainable agriculture.

4. METHODOLOGY

Research Design

Quasi Experimental design is used in this study. This design is appropriate for collecting date on the acceptability of kundol tart among salettinnian students. It will involve administering of survey questionnaires to gather data on student's perception of the product taste, mouthfeel/after taste, texture, color/ appearance, uniformity in size and packaging. The purpose of this design is to gather quantitative data on the acceptability of kundol tart among Salettinian students. This will be used to assess the product market potential and identify areas for improvement. The research questions will focus on understanding student preferences and purchase intent related to taste, mouthfeel/after taste, texture, color/appearance, uniformity in size and packaging. The form of data will be a survey questionnaire to measure the perception of kundol tart's taste, moutfeel/after taste, color or appearance, texture, uniformity in size and packaging, as well as the demographic and purchase intent. A survey questionnaire is appropriate for this study because it will allow for comprehensive data collection across a large sample of students.

Study Site and Participants

The study site will be the University of La Salette, a premier Catholic institution that caters to the poor, with a strong commitment to providing accessible, values-driven education.

The participants will focus on the students from the College of Business Education who are currently enrolled in the Business Administration, Tourism and Hospitality Management. The population of the University of La Salette particularly the Business Administration, Tourism and Hospitality have 724 enrolled students in the different programs. Students must be at least 18 years of age and above and must not have any food allergies to ensure that respondents will provide meaningful responses to the survey.

Population, Sampling Size and Sampling Method

Respondents will of the study were selected in a random sampling because they are currently enrolled to the Business Administration, Tourism and Hospitality Management and already known by the researchers who are from first year to fourth year. Researcher will not be part of the study and will be using a convenient purposive sampling method to collectively select the respondents.

Instrument

The instrument to be used for this study is a survey questionnaire that measure the consumer acceptance of kundol tart. The survey questionnaire consisting of demographic information, participants perceptions to the product's taste, mouthfeel/after taste, color or appearance, texture, uniformity in size and packaging purchasing intent.

The questionnaires will use a 8-point likert scale to measure participants' perceptions and preferences. The scales range from like extremely to dislike extremely. Questionnaires are designed specifically for this study and are based on the research questions and literature review.

The questionnaires will be Pilot tested with a small group of Business Administration, Tourism and Hospitality Management students before being administered to the main sample.

Data Gathering Procedure

Before the data collection, the study must be approved and reviewed. The researchers will visit Business Administration, Tourism and Hospitality Management classes and invite students to participate in the study. Researchers will explain the study's purpose, procedures, and any associated risks to the participants. During the data collection phase, questionnaires will be distributed to the participants, who will then fill them out and return them to the researchers. After the data has been collected, the researchers will express gratitude to the participants, enter the data, analyze it, and summarize the findings.

Informed consent will be obtained from each participant before they begin the questionnaire. Each participant will receive a paper copy of the questionnaire with instructions. They will answer the questions by selecting the option that best reflects their opinion and experience. The researchers will determine the response rate by dividing the number of completed questionnaires by the total number distributed. To ensure confidentiality, participants will not be required to provide their names.

Cooking Procedure

For the Kundol Candy:

- Slice winter melon into big round pieces.
- Peel and remove core.
- Cut into small and thin pieces.
- Rinse with water.
- In a bowl, put enough water and ¼ cup of Apog(Lime)
- Soak winter melon into the apog overnight.
- After soaking, rinse with clean water until the water becomes clear.
- Boil in water for 12 minutes.
- Rinse before squeezing the water and dry.
- Put 1 cup of white sugar.
- Give a Little stir.
- Cover with cling wrap and rest for 6 hours.
- After 6 hours, the sugar dissolves and become a syrup.
- Pour syrup in a pan.
- Add 1 teaspoon of salt and let it boil.
- Add winter melon and simmer in medium heat until the water dries

out.

- Once the syrup thickens, lower the heat and stir continuously.
- Keep stirring until the winter melon is fully dried.

For the Tart:

- Prepare 3 cups of flour,3 tbsp sugar and 1/4 tsp salt, then combine dry ingredients.
- Add one whole butter cut into pieces. (soften)
- Mash together until butter is well combined.
- Add 2 large eggs.
- Add bits of candied winter melon.
- Mix until it becomes a dough.
- Cover in a cling wrap and rest for at least 10 minutes.
- Using a ½ tbsp, scoop the dough and put into the tart molds.
- Press the dough into the tart molds.
- Pre heat oven into 180° degrees and bake the tart for 20 minutes or until golden brown.
- For Kundol feeling
- 2 cups of kundol bits
- 2 eggs
- 1 cup brown sugar
- 3 tbs melted butter
- 1 tsp vanilla extract
- In a pan mix well all together with spatula until the sugar become syrup.
- Once it's done turn on the heat and cook until it becomes caramelize sticky texture.
- For the Winter Melon Custard Cream:
- In a pan, put 4 egg yolks.
- Add ¼ cup of cornstarch.
- Add 1 teaspoon of vanilla extract.
- Add 2 cups of fresh milk.
- Mix until cornstarch is dissolved
- Turn on the heat to medium and continuously whisk until custard thickens.
- Add a cut of butter mix let it cool
- Assembling Winter Melon Tart:
- Put a caramelized kundol feeling to baked tart crust
- Pipe custard cream into the tart crust.
- Top with winter melon candy.
- Ingredients
- 3 cups all-purpose flour
- 6 tbsp White sugar
- 1/4 Tsp salt
- 4 large eggs
- pack butter/margarine

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- 2 cups milk
- 1 cup granulated brown sugar
- 1/4 cup cornstarch
- 4 eggs yolks

Data Analysis

The data was undergone into a normality test.

1. Frequency and percentage distribution. It is used to determine the share of the different variables according to the responses of the respondents.
2. Weighted mean and standard deviation. Hedonic test analysis was used, using a scale of 1 to 8 to determine the level of acceptance and level of sensory evaluation.
3. The Kruskal - Wallis test was used to compare the sensory evaluation scores of students from different age groups, such as those aged 19 and below, 20 – 2, and 22 – 23 years old.
4. Mann-Whitney U test was used to compare the responses of male and female students in terms of their evaluations of the tart's taste, texture, packaging, and purchase intent.
5. The data was undergone post hoc evaluation. The data had been processed to the use of post hoc evaluation through the use of SPSS Software.

Ethical Consideration

Participants in this research project will have the opportunity to contribute to a valuable initiative aimed at improving the marketability of a traditional Filipino dessert, while also gaining insights into food research methodologies and enjoying a pleasant tasting experience. Although minimal risks are anticipated— such as a slight time commitment for completing the survey or participating in the taste test, potential minor discomfort from disliking the tart, and the risk of allergic reactions to certain ingredients these can be effectively managed. To address these risks, informed consent will be obtained, ensuring participants are fully aware of the study's purpose and procedures, and they will have the option to withdraw at any time without penalty. Confidentiality will be maintained by anonymize all data collected, protecting participant privacy. Additionally, participants will be screened for food allergies prior to the taste test to ensure their safety, with alternative options provided as necessary. Overall, the benefits of this research, including valuable insights into consumer preferences that could benefit local food businesses and contribute to preserving traditional Filipino food culture, clearly outweigh the minimal risks, which can be easily mitigated through ethical safeguards.

5. RESULTS

This section presents the results of the gathered data and analyze using different statistics and presented in tabular presentation.

Part I – Profile of the Respondents

Table 1. Distribution of Demographic Profile of the Respondents

Variables	Frequency	Percentage
Age		
19 Years Old and Below	138	54.76
20 – 21 Years Old	92	36.51
22 – 23 Years Old	21	8.33
24 Years Old and Above	1	0.40
Sex		
Male	140	56
Female	112	44

n = 252

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As gleaned on Table 1 with regards to the demographic profile of the respondents shows that 138 or 54.76 percent belong to age bracket of 19 years old and below, 92 or 36.51 percent were 20 – 21 years old, 21 or 8.33 percent were 22 – 23 years old and 1 or 0.40 percent was 24 years old and above. It implies that most of the respondents were 19 years old and below. As to their sex, 140 or 56 percent were male and 112 or 44 percent were female respondents. It implies that most of the respondents were male student. As mentioned in the study of Jayvee Cebu (2023) that majority of the college student were 18 to 21 years old that one of his study examined self-efficacy among Filipino college students and its relationships demographic such as age, gender, and year level.

Part II – Sensory Evaluation

The sensory evaluation of the kundol tart were tested and analyze based on taste, mouthfeel/after taste, texture, color or appearance, uniformity in size and packaging.

2.1 Taste

Table 2. Mean Responses of the Respondents on the Sensory Evaluation with Regards to Taste

Indicator	SD	Mean	Qualitative Interpretation
The Taste of the main ingredients is present	1.01	6.96	Like very much
The food is not too soft nor too hard to eat	1.34	6.60	Like very much
There is a balance of taste	1.10	6.99	Like very much
The overall flavor is rich and satisfying	1.03	7.11	Like very much
The combination of flavors (e.g. filing, crust) is well proportioned	1.13	7.05	Like very much
The overall taste experience is enjoyable	1.02	7.15	Like very much
Category Mean		6.97	Like very much

Legend 1.00 - 1.87 = Extremely Dislike 3.64 - 4.51 = Slightly Dislike 6.28 - 7.15 = Like very much

1.88 - 2.75 = Very much Dislike 4.52 - 5.39 = Slightly Like 7.16 - 8.00 = Extremely Like

2.76 - 3.63 = Moderately Dislike 5.40 - 6.27 = Moderately Like

As presented on Table 2 with regard to sensory evaluation shows that most of the respondents believed or they like very much taste of the kondul tart as manifested on the different indicators like the overall taste experience is enjoyable (M=7.15), the overall flavor is rich and satisfying (M=7.11), and the combination of flavors (e.g. filing, crust) is well proportioned (M=7.05). There is a balance of taste (M=6.99), the taste of the main ingredients is present (M=6.96) and the food is not too soft nor too hard to east (M=6.60). It implies that the taste on sensory evaluation was like very much with a category mean of 6.97 it means that the respondents have a strong preference or enjoyment about the taste of kundol tart or while they are eating the tart have a satisfying and enjoyable taste.

2.2 Mouthfeel/After Taste

Table 3. Mean Responses of the Respondents on the Sensory Evaluation with Regards to Mouthfeel/After Taste

Indicator	SD	Mean	Qualitative Interpretation
Lasting taste is pleasant and enjoyable	1.01	6.98	Like very much
No undesirable bitter notes	1.17	6.92	Like very much
Food chew easily	1.26	6.86	Like very much
Does not leave an unpleasant greasy or oily feel in the mouth	1.13	6.95	Like very much
Does not leave an overpowering aftertaste	1.08	6.97	Like very much
Does not leave a sticky or unpleasant residue in the mouth	1.12	6.88	Like very much
Category Mean		6.93	Like very much

Legend 1.00 - 1.87 = Extremely Dislike 3.64 - 4.51 = Slightly Dislike 6.28 - 7.15 = Like very much

1.88 - 2.75 = Very much Dislike 4.52 - 5.39 = Slightly Like 7.16 - 8.00 = Extremely Like

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As shown in Table 3 about the sensory evaluation on mouthfeel/after taste, the respondents believed or like very much as indicated on the different indicators that there is a lasting taste is pleasant and enjoyable (M=6.98), it does not leave an overpowering aftertaste (M=6.97), and it does not leave an unpleasant greasy or oily feel in the mouth (M=6.95) even of no undesirable bitter notes (m=6.92), likewise it does not leave a sticky or unpleasant residue in the mouth (M=6.88), and the food chew easily (M=6.86). It implies that the sensory evaluation of the respondents was like very much with a category mean of 6.93 or their experience in mouthfeel/after taste is acceptable and satisfying.

2.3 Texture

Table 4. Mean Responses of the Respondents on the Sensory Evaluation with Regards to Texture

Indicator	SD	Mean	Qualitative Interpretation
Food has a desirable texture	0.95	6.92	Like very much
Light is consistency	0.94	6.92	Like very much
Food has an appropriate moisture level (not too dry or to runny)	1.14	6.81	Like very much
Food has a smooth, non-grainy texture	1.14	6.72	Like very much
Food provides a pleasant chew without being tough	1.03	6.86	Like very much
The over all texture experience is enjoyable	0.92	7.22	Extremely Like
Category Mean		6.91	Like very much

Legend 1.00 - 1.87 = Extremely Dislike 3.64 - 4.51 = Slightly Dislike 6.28 - 7.15 = Like very much

1.88 - 2.75 = Very much Dislike 4.52 - 5.39 = Slightly Like 7.16 - 8.00 = Extremely Like

2.76 - 3.63 = Moderately Dislike 5.40 - 6.27 = Moderately Like

As gleaned on Table 4 with regard to the sensory evaluation the respondents on texture shows that the respondents was extremely like the overall texture experience is enjoyable (M=7.22). The respondents believed or like very much the food has a desirable texture and the light is consistency (M=6.92), the food provides a pleasant chew without being tough (M=6.86) and the food has an appropriate moisture level (not too dry or to runny) (M=6.81) even the food has a smooth, non-grainy texture (M=6.72). It implies that the sensory attribute on texture as part of the evaluation shows a category mean of 6.91 or like very much or it has a satisfying texture. It implies that the sensory evaluation of the respondents were like very much with category mean of 6.91 about the sensory attribute of texture.

2.4 Color or Appearance

Table 5. Mean Responses of the Respondents on the Sensory Evaluation with Regards to Color or Appearance

Indicator	SD	Mean	Qualitative Interpretation
Food has a consistent and even color throughout	0.99	7.02	Like very much
Food has an appealing color	0.98	6.98	Like very much
Food has a fresh and appealing look	4.51	7.32	Extremely Like
Does not have any noticeable burnt or overly dark areas	1.08	6.87	Like very much
The food color contrasts well with garnish, making it visually appealing	1.04	6.96	Like very much
Food looks appetizing and well-made	0.89	7.20	Extremely Like
Category Mean		7.05	Like very much

Legend 1.00 - 1.87 = Extremely Dislike 3.64 - 4.51 = Slightly Dislike 6.28 - 7.15 = Like very much

1.88 - 2.75 = Very much Dislike 4.52 - 5.39 = Slightly Like 7.16 - 8.00 = Extremely Like

2.76 - 3.63 = Moderately Dislike 5.40 - 6.27 = Moderately Like

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As presented on Table 5, the respondents thought that the color or appearance of the kundol tart extremely like or have a very strong satisfying experience on the food has a fresh and appealing look (M=7.32) and the food looks appetizing and well-made (M=7.20). The respondents were like very much on the different indicator like the food has a consistent and even color throughout (M=7.02), food has an appealing color (M=6.98), the food color contrasts well with garnish, making it visually appealing (M=6.96), and it does not have any noticeable burnt or overly dark areas (M=6.87). It implies that majority of the respondents were like very much with a category mean of 7.05 or simple they have a satisfying experience on the sensory evaluation of the attribute color or appearance of the kundol tart.

2.5 Uniformity in Size

Table 6. Mean Responses of the Respondents on the Sensory Evaluation with Regards to Uniformity in Size

Indicator	SD	Mean	Qualitative Interpretation
Food has a uniform shape	0.96	7.15	Like very much
Food has a consistent thickness across all pieces	0.98	7.04	Like very much
The size is appropriate and consistent with expectations	0.94	7.03	Like very much
There are no deformation or cracks	0.95	7.00	Like very much
Food portion size is appropriate for individual consumption	0.97	7.07	Like very much
Food is visually consistent and well-proportioned	0.85	7.19	Extremely Like
Category Mean		7.08	Like very much

Legend 1.00 - 1.87 = Extremely Dislike 3.64 - 4.51 = Slightly Dislike 6.28 - 7.15 = Like very much

1.88 - 2.75 = Very much Dislike 4.52 - 5.39 = Slightly Like 7.16 - 8.00 = Extremely Like

2.76 - 3.63 = Moderately Dislike 5.40 - 6.27 = Moderately Like

As presented on Table 6 with regard to the sensory evaluation of the kundol tart about the attribute of uniformity in size was extremely like on the food is visually consistent and well-proportioned (M=7.19) and they were like very much on the food has a uniform shape (M=7.15), the food portion size is appropriate for individual consumption (M=7.07), the food has a consistent thickness across all pieces (M=7.04), and the size is appropriate and consistent with expectations (M=7.03) even that there are no deformation or cracks (M=7.00). It implies that the respondents like very much the uniformity of size with a category mean of 7.08 or simple they are satisfied.

2.6 Packaging

Table 7. Mean Responses of the Respondents on the Sensory Evaluation with Regards to Packaging

Indicator	SD	Mean	Qualitative Interpretation
The food packaging is visually appealing.	1.08	6.93	Like very much
The packaging size is appropriate for the product.	1.01	6.96	Like very much
The packaging is easy to open.	0.95	7.05	Like very much
The packaging provides good protection during storage and transport.	1.06	6.92	Like very much
Packaging influences the likelihood of repurchasing.	1.05	6.99	Like very much
The overall packaging design is well-rated.	0.92	7.19	Extremely Like
Category Mean		7.00	Like very much

Legend 1.00 - 1.87 = Extremely Dislike 3.64 - 4.51 = Slightly Dislike 6.28 - 7.15 = Like very much

1.88 - 2.75 = Very much Dislike 4.52 - 5.39 = Slightly Like 7.16 - 8.00 = Extremely Like

2.76 - 3.63 = Moderately Dislike 5.40 - 6.27 = Moderately Like

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As shown in Table 7 about the sensory evaluation on the sensory attribute of packaging shows that they extremely like on the overall packaging design is well-rated (M=7.19), the packaging is easy to open (M=7.05), packaging influences the likelihood of repurchasing (M=6.99), the food has an appealing color (M=6.96), the packaging size is appropriate for the product (M=6.93), and the packaging provides good protection during storage and transport (M=6.92) were rated as like very much. It implies that the packaging is like very much by the respondents with a category mean of 7.00 which means that the respondents accept and satisfied with the packaging of the food.

Table 8. Summary Sensory Evaluation of the Respondents on the Different Sensory Attributes

Indicator	SD	Mean	Qualitative Interpretation	Ranked
Uniformity in size	0.95	7.08	Like very much	1
Color and appearance	1.00	7.05	Like very much	2
Packaging	1.02	7.00	Like very much	3
Taste	1.12	6.97	Like very much	4
Mouthfeel/after taste	1.13	6.93	Like very much	5
Texture	1.03	6.91	Like very much	6
Category Mean		6.99	Like very much	

Legend 1.00 - 1.87 = Extremely Dislike 3.64 - 4.51 = Slightly Dislike 6.28 - 7.15 = Like very much

1.88 - 2.75 = Very much Dislike 4.52 - 5.39 = Slightly Like 7.16 - 8.00 = Extremely Like

2.76 - 3.63 = Moderately Dislike 5.40 - 6.27 = Moderately Like

As shown in table 8, the sensory evaluation results indicate that respondents rated all sensory attributes like very much. The highest rating was given to uniformity in size (M = 7.08), followed by color and appearance (M = 7.05) and packaging (M = 7.00). Taste (M = 6.91), mouthfeel/aftertaste (M = 6.93), and texture (M = 6.91) were also rated as “Like very much”. The category mean of 6.99 suggests that respondents were generally satisfied with the products sensory qualities.

Part III – Market Potential and Purchase Intent

Table 9. Mean Responses of the Respondents on the Market Potential and Purchase Intent with Regards to Market Acceptability of the Product

Indicator	Mean	SD	Qualitative Interpretation
I would be interested in buying this product again	0.64	3.49	Strongly Agree
I will recommend this product to others	0.66	3.52	Strongly Agree
The product can compete well with similar products in the market	0.73	3.40	Strongly Agree
The product should be made available in local stores or online	0.76	3.56	Strongly Agree
Category Mean	0.69	3.49	Strongly Agree

Legend 1.00 - 1.74 = Strongly Disagree 2.50 – 3.24 = Agree

1.75 - 2.49 = Disagree 3.25 – 4.00 = Strongly Agree

As shown in table 9 with regard to the market potential and purchase intent of the respondents were strongly agree in the different indicator like the product should be made available in local stores or online (M=3.56), they will recommend this product to others (M=3.52), they would be interested in buying this product again (M=3.49) and the product can compete well with similar products in the market (M=3.40). It implies that the product has a positive market potential and purchase intent with a category mean of 3.52 or simply they were strongly agree and have a positive marketability and potential to be purchase by the respondents.

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Part IV – Significant Difference

Table 10. Significant Difference on the Respondents Responses about the Sensory Acceptability of Kondul Tart based don their Age

Age / Taste	n	Mean Rank	H Test	Df	p-value
19 Years Old and Below	138	261.17	3.749	6	.711
20 – 21 Years Old	92	234.45			
22 – 23 Years Old	21	217.41			
24 Years Old	1	145.00			
Mouthfeel/After Taste					
19 Years Old and Below	138	250.52	3.281	6	.773
20 - 21 Years Old	92	250.45			
22 - 23 Years Old	21	316.61			
24 Years Old	1	82.50			
Texture					
19 Years Old and Below	138	254.14	3.332	6	.766
20 - 21 Years Old	92	240.02			
22 - 23 Years Old	21	323.04			
24 Years Old	1	143.50			
Color or Appearance					
19 Years Old and Below	138	260.33	4.713	6	.581
20 - 21 Years Old	92	232.7			
22 - 23 Years Old	21	244.66			
24 Years Old	1	236.00			
Uniformity in Size					
19 Years Old and Below	138	248.48	7.120	6	.310
20 - 21 Years Old	92	249.37			
22 - 23 Years Old	21	215.83			
24 Years Old	1	232.00			
Packaging					
19 Years Old and Below	138	268.72	9.421	6	.151
20 - 21 Years Old	92	221.49			
22 - 23 Years Old	21	286.86			
24 Years Old	1	209.00			

At 0.050 Significant Level

The Kruskal-Wallis H Test was used to determine whether there were any statistically significant differences in sensory evaluation of the Acceptability of Kundol tart as Perceived by the Respondents at the school sensory evaluation when grouped according to their age. The test result revealed that the sensory evaluation of the Acceptability of Kundol tart, as Perceived by the Respondents, were significantly different based on age (H (3) = 31,616, p = 3.292). This means the student have different perceptions on their sensory evaluation of the Acceptability of Kundol tart at the school based on age. Thus, the null hypothesis must be rejected at a 0.05 significance level.

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Table 11. Significant Difference of the Respondents. Responses about the Sensory Acceptability of Kundol Tart based on Market Potential.

Market Potential	N	Mean Rank	U	Df	p-value
19 Years Old and Below	138	257.31	12.698	6	.048
20 - 21 Years Old	92	223.75			
22 - 23 Years Old	21	330.50			
24 Years Old	1	137.50			

At 0.050 Significant Level

A Mann-Whitney U Test was conducted to compare the sensory evaluation of the Acceptability of Kundol tart based on sex as perceived by the Respondents at the school. The test result revealed no significant difference between male and female responses/assessments regarding their sensory evaluation of the Acceptability of Kundol tart (U = 43450, p = 2.625). Thus, the null Hypothesis must be accepted at a 0.05 significance level.

6. DISCUSSION

This study aimed to evaluate the acceptability of Kundol Tart among Salettinian students, specifically examining its taste, texture, color or appearance, uniformity in size, packaging, and overall sensory experience. Given the growing demand for innovative and culturally relevant food products, understanding the preferences of university students can help enhance the marketability of traditional Filipino desserts. By assessing the factors influencing students' perceptions, this research provides insights into potential improvements for product development and commercialization.

Part I – Demographic Profile

The respondents of the study belonged to age bracket of 19 years old and below and few respondents belong to age bracket of 24 years and above while most of them were male respondents and almost 10 percent of the them were female respondents. As CHED Memorandum No. 01 series 2017 stating the minimum age requirement for a college student is 18 years old as the result of the study majority of the respondent were below 19 years and the course of business education found that men and women use the same criteria in selecting a business major, including beliefs about success and fit, as well as advice from referent others but usually marketing courses are being dominated by male students (Zölitz, U., & Feld, J. (n.d.).

Part II – Sensory Evaluation

The sensory evaluation of the kundol tart revealed a high level of consumer satisfaction, with respondents expressing strong appreciation for its taste attributes. The mean scores for overall taste experience, flavor richness, and flavor combination balance indicate that the tart effectively meets consumer expectations in these areas. These findings are consistent with contemporary research emphasizing the importance of sensory characteristics in consumer food preferences.

Studies underscore that taste, texture, and flavor significantly influence consumer acceptance and enjoyment of food products. For instance, research in sensory science highlights the critical role of these attributes in determining overall liking and satisfaction (Drake, Watson & Liu, 2023). Additionally, the integration of emotional responses into sensory evaluations has been shown to provide a more comprehensive understanding of consumer preferences, as emotional reactions can be strong predictors of food choices

Furthermore, the balance and proportion of flavors, as evidenced by the kundol tart's evaluation, align with findings that well-balanced sensory attributes contribute to higher consumer satisfaction. Studies have demonstrated that products achieving a harmonious blend of taste and texture are more likely to be favored by consumers (Andersen, Brockhoff, & Hyldig, 2019).

The positive sensory evaluation of the kundol tart reflects key factors identified in recent literature that drive consumer liking and acceptance. Ensuring that food products deliver on taste, flavor balance, and texture is essential for meeting consumer expectations and achieving market success.

Part III – Market Potential

The market potential and purchase intent of kundol tart shows that the respondents strongly agree that manifest on the different indicators that they will recommend this product to others and at the same time, the product should be made available to the local store or online.

Part IV – Degree of Difference

The study shows that the null hypothesis is accepted and there is no significant difference if we will compare the variables of the age sensory evaluation. But when you look into the evaluation with regards to gender, there is no significant relationship except sensory evaluation according to the uniformity in size of the product.

The study examined the degree of difference between respondents' age, sex, and their perception of the product's market potential. Results indicate variations in how different demographic groups perceive the product's competitiveness, purchase intent, and recommendation likelihood. In terms of age, older respondents 19 years old and above expressed higher confidence in the product's competitiveness and were more likely to repurchase, whereas younger respondents showed moderate agreement but demonstrated a stronger inclination to recommend the product to others. This suggests that younger consumers may engage more through word-of-mouth, while older consumers may have a more established sense of brand loyalty.

Regarding sex, differences were also observed in purchase intent and perceived market potential. Male respondents tended to have a slightly higher mean score in believing that the product can compete well in the market. Meanwhile, female respondents exhibited a stronger willingness to recommend the product and showed greater repeat purchase intent, indicating a potential for higher brand loyalty within this group. While all demographic segments generally agreed on the product's viability, these variations highlight the need for targeted marketing strategies to maximize its appeal. Statistical analysis, such as Kruskal-Wallis or Mann-Whitney, could further validate whether these differences are significant or simply variations in perception.

7. RECOMMENDATION

1. The product should be improved in terms of the preparation of the crust for the balance and hardness, even the browning techniques to prevent brunt and over dark areas.
2. Improve the food texture by reducing graininess for a smoother consistency and make the buyer an easier to chew and make it sure has balance in the tartness to maintain its structural integrity.
3. Design a packaging that is more mouthwatering and appealing to the buyer since the product is highly recommended to place in the different market place.
4. Conduct research for a more marketability of the product in the different market segmentation and correlate with the different variables to use.

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