



Cawangan Kedah
Kampus Sungai Petani

Faculty of Administrative
Science and Policy Studies

i-SPIKE 2021

Leading An Artificial Innovation In Knowledge, Education And Design

i-SPIKE 2021 INTERNATIONAL EXHIBITION & SYMPOSIUM E-PROCEEDINGS

<https://ispike2021.uitm.edu.my/>

e-ISBN 978-967-2948-20-9

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Copy Editors : Azni Syafena Andin Salmat, Syazliyati Ibrahim, Asrol Hasan, Nor Zaini Zainal Abidin, Fatimah Norazami Abdullah, Chaleeda Som Sak, Nor Asni Syahriza Abu Hassan & Muhamad Khairul Anuar Zulkepli

Layout Editor : Asrol Hasan

Cover Design : Syahrini Shawalludin

Published by : Universiti Teknologi MARA Cawangan Kedah,
Kampus Merbok,
08400 Merbok,
Kedah,
Malaysia.

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GULALI PANDAN

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ABSTRACT

Gulali Pandan is a product innovated from a candy known as *tepung seman* in Malaysia. The product is a small, bite-sized candy infused with *pandan* leaf in order to extract its flavour, colour and aromatic properties. The objective of this product is to enhance the original plain candy with *pandan* flavour, use a natural colourant for the appeal, providing a non-messy eating experience while also enlightening the value of *tepung seman* in other states and expressing cultural identity to outsiders. The product is a combination of *pandan* flavoured candy, tuile and crushed peanuts with salted caramel granules. The candy is stretched repeatedly by hand to form thin strands, the tuile cookie is baked and formed into a cup shape while the salted caramel is melted, harden and crushed together with peanuts. All of the components are assembled and the finished product is produced. The sensory properties of Gulali Pandan were tested on 30 panels and measured using the Hedonic Test. The evaluation is based on appearance, aroma, colour, sweetness, flavour, aftertaste and overall acceptability. Three variations were presented; (A) natural *pandan* colour and flavour, (B) artificial green colour and *pandan* flavour, and (C) natural *pandan* colour with artificial *pandan* flavour. The result has shown that sample A is favoured by most respondents. The target market is children, family and tourists. It is unique for its attractive appearance, convenient eating, natural flavouring and suitability as gift or souvenir.

Keywords: *Gula Tarik, Semang, pandan* flavour, candy, sweet treat, Southeast Asia.

INTRODUCTION

Gula Tarik is well known especially in the east coast region of Malaysia. Originally, it is called *Tepung Seman* but because of the differences in dialect, they are called as *Semang* in Terengganu, *Seme* in Kelantan and *Sema* in Pahang. *Gula Tarik* is more of a modern name

given to this sweet delightful candy. Not to mention, this sweet treat is very popular all around the world and called by many different names. In Malaysia, this candy is usually given as a gift for tourists as it is popular for its eye-catching appearance [7]. It mainly consists of only four ingredients which is sugar, corn syrup, water and rice flour [8]. Food colouring is usually added to make the candy more appealing. The candy is either eaten on its own or with added filling such as crushed peanuts and coconut flakes. Both children and adults enjoy this candy as the thin strand of sugar melts in the mouth when it is bite through [4]. The innovation of this product is developed to give the candy a different identity from the rest of the other ones made in other countries. The innovators intend to enhance the original candy using *pandan* flavour. The colour of the candy will be derived from the *pandan* leaf itself instead of using food colouring. At the same time, the candy will enhance the real taste of *pandan* as it is more flavourful and aromatic compared to the artificial ones. Moreover, the candy produced will be able to showcase the element of Malay culture using the *pandan* flavour which is a common flavouring ingredient fondly used in Malaysia and other Southeast Asia countries [3]. Furthermore, eating the candy can be a bit messy but with the addition of a tuile cup holding the candy, it can be easily eaten without leaving crumbs all over. Even though *Gula Tarik* is a popular sweet treat in the east coast region of the country, they are still undervalued and sometimes unknown in other states [5]. Therefore, the innovators also aim to elevate this candy as one of the commonly known sweets made by *pandan* such as *askuih putri salju pandan* and *semprit pandan*.

MATERIAL AND METHODOLOGY

Material

The ingredients needed in producing Gulali Pandan are all obtained from the local market. Each part is made from scratch. Table 1 shows the percentage of the ingredients used in making the product.

Table 1. Percentage of ingredients

INGREDIENT	PERCENTAGE (%)
Rice flour	36.8
Sugar	20.3
Glucose syrup	5.5
Pandan	4.6
Water	3.7
Egg whites	4.0
Salted butter	9.2
All-purpose flour	11.8
Vanilla extract	0.2
Peanut	3.7
Salt	0.2

Methodology

a. Preparation of candy

Sugar, glucose syrup and *pandan* water (*pandan* leaves blended with water and filtered) are boiled together in low heat until it forms into the desired texture. Mixture is cooled and formed into a donut ring. The ring is stretched repeatedly and folded until it turns into thin hair-like strands [2].

b. Preparation of filling

Sugar is stirred constantly in a saucepan with medium heat. Once melted, salted butter is combined and added with salt [6]. Mixture is cooled and crushed to turn it into granules. Then, crushed peanuts are added to the granule mixture.

c. Preparation of tuile cup

In a bowl, sugar and egg whites are whisked together. Then, flour and vanilla extract is added into the mixture. Refrigerate for 4 hours. The batter is spooned and spread onto a non-stick baking mat. The batter is baked in the oven to 165c° for 10 minutes. Lastly, the cookies are taken out quickly and pushed into a small muffin mould, turning it into a cup-shaped cookie [1].

d. Assemble

The filling is placed into the cup and added candy on top.

Sensory Analysis

The sensory properties of Gulali Pandan were measured using the Hedonic Test. Evaluation of customers' acceptance are identified based on the appearance, aroma, colour, sweetness, flavour, aftertaste and overall acceptability. Three variations were made. Sample A contains natural *pandan* colour and flavour, sample B contains synthetic green colour and synthetic *pandan* flavour and sample C contains natural *pandan* colour with synthetic *pandan* flavour. The 30 panels involved are each presented with three coded samples and a score card. The score card displays a 9-point hedonic scale, anchored from "dislike extremely" to "like extremely". The sensory evaluation procedures were explained to the panels beforehand. They are also asked to read the instruction and details to get a clear perspective of the test. Once done, the results are keyed-in the Microsoft Excel to calculate the average mean score and shows the most preferred sample among the panels.

RESULT AND DISCUSSION

Product Characteristic



Figure 1. Individual pack



Figure 2. Family pack



Figure 3. The product



Figure 4. Content in individual pack



Figure 5. Content in family pack

CONSUMER ACCEPTANCE

Sensory Evaluation Result

The table and figure below show the overall result of the sensory evaluation test.

Table 2. Mean score of the three variations of Gulali Pandan

	Sample A	Sample B	Sample C
Appearance	7.03	7.36	6.76
Aroma	6.9	6.83	6.83
Colour	6.76	7.1	6.66
Sweetness	7.5	7.06	7.16
Flavour	7.23	6.83	6.9
Aftertaste	7.13	6.9	6.6
Overall acceptability	7.43	7.13	6.96

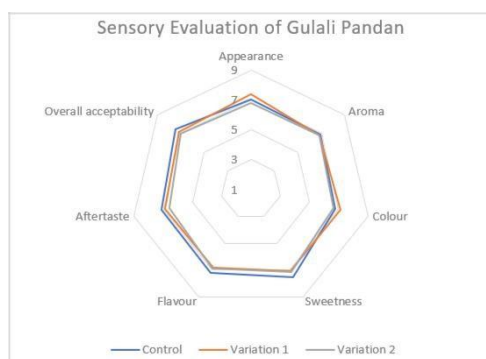


Figure 6. Radar chart of the three variations of Gulali Pandan

Discussion

Based on the result, the differences between the three variations were obtained to find out which sample was the most preferable among consumers. For the appearance and colour, sample B had the highest level of preference because using food colourant, the green colour is more vibrant which made it stand out compared to the other two. For the aroma, sample A was the highest while sample B and C had the same mean score. This is because sample A uses *pandan* leaves which gave out a more natural aromatic *pandan* smell. For the sweetness, it showed that sample A was most preferable, followed by sample C and sample B in the last place. For the flavour and aftertaste, sample A had won again because using the *pandan* leaves, it brought out the authentic *pandan* flavour which sample B and C did not have with their artificial flavouring as it gave out a slight chemical-like taste. Taking everything into account, the overall acceptability had shown that sample A was the most favoured by respondents.

CONCLUSION

To conclude, the most preferred variation is the one utilizing *pandan* leaf for both flavouring and colouring. The test held had proved our point that the natural *pandan* is enough to

enhance the taste and appearance of the candy. Gulali Pandan is convenient to eat as it is bite-sized and leaves no mess while eating. This product has a more attractive appearance as it set out a different look from the other candy on the market and it is suitable for souvenirs as the family box exhibits a premium look. Not to mention, the natural colour and flavour extracted from the *pandan* leaf will give customers the full experience of enjoying the taste of authentic *pandan*. The product will also be good at expressing our cultural identity to the international tourists as *pandan* is a unique plant that is well-known and mostly found in Malaysia and other Southeast Asia country. However, continuous research and development (R&D) has to be taken to ensure a more refined product will be produced and the improved ways will be successfully implemented in the future.

ACKNOWLEDGEMENT

Alhamdulillah, we praise and thank Allah SWT for giving us the ability and patience to complete this project. The completion of this project has been made possible with the support of our lecturers - Madam Noristisarah Abd Shattar and Madam Siti Noraisah Dolah. We would like to extend our sincere thanks to the panelist who made the indication of the best variation of the product possible. Not to forget, our family and friends who have helped encouraged through the hard times. All of the support is much appreciated and duly noted.

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