

Mister Banasik Mocaf Snack with Eco-Friendly packaging

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Abstract

Background - Increasing awareness of healthy lifestyles and environmental sustainability has driven demand for innovative food products. Traditional snack foods often rely on gluten-based ingredients and plastic packaging, which does not meet the needs of health-conscious consumers, especially those who are gluten intolerant. Bananas, an abundant and nutrient-rich local commodity, offer an opportunity to develop healthier and environmentally friendly products while empowering local farmers.

Purpose - This research aims to develop Banana Nugget Mocaf, a gluten-free snack made from banana and mocaf (modified cassava flour) with biodegradable packaging. In addition, this research also explores the market potential and assesses the environmental and social impacts of the product.

methodology - A mixed methods approach was used. Quantitative methods include TAM (Total Addressable Market), SAM (Serviceable Available Market), and SOM (Serviceable Obtainable Market) analysis to project market potential, as well as sensory evaluation carried out by 100 panelists to assess taste, texture and aroma. Qualitative methods include interviews with local farmers to understand the economic impact and observing consumer behavior to evaluate preferences for healthy snacks.

Findings - Research results show that this product has superior nutritional value, because it contains vitamin B6, vitamin C, manganese and potassium, as well as a low glycemic index. Sensory evaluation showed that Banana Nugget Mocaf was preferable to traditional wheat-based snacks. Product quality is maintained better in cold storage, and the biodegradable packaging effectively reduces plastic waste. The market potential for the first year of sales is projected at IDR 605.88 million. This product makes a significant contribution to the Sustainable Development Goals (SDGs) related to health, food security and responsible consumption.

Originality - This study highlights a new approach to combining health, sustainability and empowering local communities through snack products made from natural ingredients and environmentally friendly packaging. The results provide important insights for the healthy food innovation sector and sustainability-oriented businesses.

Keywords: healthy snacks, eco-friendly, mocaf, local market, sustainability
