## **Opportunity Analysis for Value-Added Banana Chips Using Substandard Bananas in Commercial Farms**

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Banana is a major fruit crop grown commercially in Sri Lanka. There are many varieties of bananas cultivated in Sri Lanka. However, the Cavendish banana variety is the most popular commercially grown variety in major banana-growing countries of the world including Sri Lanka. One of the major problems of commercial banana farmers is generating a large amount of refused bananas due to physical damage to the fruit. Due to external damage, the quality level and price level of the fruits are compromised. This research work was undertaken to regain the cost of cosmetically damaged bananas up to a profitable level by producing banana chips as a value addition. The research location was the CIC Quality Banana Project, Hingurakgoda and customer analysis was done based on Higurakgoda, Medirigiriya and Lankapura Divisions for value addition. Three samples were produced by using different flavours such as spicy flavour, sweet flavour and salty flavour banana chips. The sensory analysis of the products was done by using the Hedonic test and Ranking test, both concluded that the “Spicy flavour banana chips sample” was the best sample. Microbiological analysis was done by the Food & Nutritional Laboratory of CIC Seed Farm. The analysis concludes that the product is under a safe limit within 30 days of ambient storage. The consumer analysis results conclude that Most participants prefer to buy banana chips from retail stores and supermarkets. The majority of the participants rated Rs.150-200 for 100 grams of banana chips and the attributes that most consumers care about when buying chips were price, taste, quality, quantity and availability. A feasibility analysis evaluated the opportunity to develop a banana chips unit on commercial farms by comparison of selling raw green bananas without value addition for local intermediate sellers. The NPV was being positive and IRR was being greater than the interest rate (25%) concluded that the project is feasible. Thus, Banana chips production by using refused bananas is a profitable and feasible project for commercial banana farmers.

**Keywords:** banana chips, customer analysis, feasibility analysis, refused banana, value addition