CHAPTER V
CONCLUSION AND SUGGESTION

5.1 Conclusion

The innovation of durian seed-based chips presents a sustainable solution to food waste while offering a nutritious and economically viable snack alternative. This product utilizes durian seeds (*Durio zibethinus*), which are commonly discarded as waste despite their high starch and fiber content. Through a standardized production method involving peeling, boiling the seeds until tender (40–60 minutes), slicing with a mandolin to 1 mm thickness, frying at medium heat (150–160°C), and evenly applying a seasoning mix of chicken powder, onion powder, and garlic powder, the seeds are transformed into crispy, savory chips.

Turns out the sensory evaluation with 10 panelists resulted in a score of 207/250, categorized as "Very Good," specially praising the crisp texture and natural flavor. After reducing the pepper content to improve balance, sensory acceptance further improved. However nutritional analysis showed that each 20gram serving of the durian seed chips contains approximately 42,4 cal, with 0.12 g fat, 8.5 g carbohydrates, 1.1 g fiber, and 1.43 g protein. These values highlight the product's potential as a high-fiber, plant-based snack suitable for various age groups.

Furthermore the chips are packaged in plastic pouches and stored in a cool, dry place (20–25°C), achieving an estimated shelf life of one month under optimal conditions. From a financial standpoint, the total production cost (including ingredients, packaging, and overhead) was estimated at Rp6.176 per pack, while the final selling price was set at Rp12.500, offering a reasonable profit margin and market competitiveness.

Overall, the development of durian seed chips supports circular economy principles by valorizing agricultural waste, meeting the

increasing demand for ecofriendly functional foods, and creating new business opportunities—especially in regions where durian is abundant. With further product development and quality control, this innovation holds strong potential for commercial success.

5.2 Suggestion

A number of enhancements are suggested to boost the growth and commercial potential of durian seed chips. In order to cater to a wider range of consumer preferences, future research should concentrate on increasing the variety of flavors by experimenting with common seasonings like seaweed, barbecue, or sweet and spicy mixtures. And using same type of durian seeds which is lawu kra so the product can be the same colour. Furthermore, to confirm and possibly prolong the present one-month shelf life, thorough shelf-life testing— including microbiological and accelerated aging studies—is necessary. Consistency in texture and flavor might be achieved by employing precision equipment to standardize the thickness of durian seed slices and the seasoning ratio. Additionally, investigating healthier cooking techniques like baking can provide a less-fat substitute, appealing to people who are health-conscious. partnering with small and medium-sized businesses and local farmers to source ingredients sustainably while encouraging rural economic growth.

Lastly, obtaining certifications such as BPOM (Badan Pengawas Obat dan Makanan), halal, and PIRT (Pangan Industri Rumah Tangga) is crucial for enhancing consumer trust, ensuring food safety compliance, and facilitating the entry of the product into modern retail markets.