ABSTRACT

THE ECONOMIC ANALYSIS OF VACUUM FRYING IN MAKING CARROT CHIP

By

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Almost all regions produced this carrot, even in the areas which had superior commodity such as vegetables and fruits. Unfortunately this commodity management was still bad. We often saw the fruit and vegetable price fell on the summit of harvest. This was caused by fruit and vegetable management for fresh consumption only, while fruit and vegetable were perishable products. The alternative solution would be using fruit and vegetable as processing food material. The prospective fruit and vegetables food processing currently was fruit or vegetable chips. Vacuum frying is a frying utensil that had some advantages compared with conventional frying utensil in making chips. To make profit, every system that worked in the vacuum frying was analyzed. It was done by collecting primary and secondary value. Factors such as fixed cost, variable cost, and total cost would be one of estimations. Those value were required to compare and to obtain performance value of the utensil to its operational cost. The estimations also included break even point (BEP), net present value (NPV), benefit/cost ratio (B/C ratio), internal rate of return (IRR).

The economic analysis obtained the processing cost for carrot frying product in form of sticks in plastic package was Rp 32,198.74/kg; in jar package was Rp 36,284.84/kg; in small plastic package was Rp 32,220.63/kg. The main cost for rounded carrot chip in big plastic package was Rp 32,041.66/kg; in jar package was Rp 35,097.17/kg; and small plastic package was Rp 32,054.37/kg.

Income from respective packages was Rp 18,266.70/hour for stick carrot in big plastic package; Rp 27,552.68/hour for jar package; and Rp 25,048.95/hour for small plastic package. Income from respective packages was Rp 18.665,45/hour for rounded carrot in big plastic package; Rp 23.727,75/hour for jar package; and Rp 21.195,36/hour for small plastic.

The BEP of vacuum fryer usage in making stick carrot chip in big plastic package was obtained in capacity of 92,39 kg/year or 5,77 month; 73.11 kg/year or 4.56 month for jar package; and 73.73 kg/year or 4.61 month for small plastic package.

The BEP for rounded carrot chip was obtained in capacity of 86,58 kg/year or 5,41 month for big plastic package; 75,73 kg/year or 4.73 month for jar package; and 97,35 kg/year or 6.08 month for small plastic package.

The NPV value of stick carrot chip in big plastic package was Rp 1,529,488.98 with B/C value of 1.01; Rp 25,199,727.57 with B/C value of 1.08 in jar package;

and Rp 7,193,981.68 with B/C value of 1.02 in small plastic package. The NPV value for rounded carrot chip was Rp 1,588,855.69 with B/C value of 1.01 in big plastic package; Rp 15,037,971.78 with B/C value of 1.05 in jar package; and Rp 8,310,122.47 with B/C value of 1.03 in small plastic package.

Based on the proper analysis, the NPV and B/C values ratio were more than 1. it means that the carrot chip business with using vacuum fryer is worth to run. The analysis results suggest the carrot chip sales in jar package because the profit was bigger.