ABSTRACT

The quality of banana crackers is determined by three primary factors: taste, crispy, and the geometry of slice. One of main problem to produce good quality banana crackers is the method of slicing. Most of home industries still use the manual method by knife. At the beginning, slicing process can be done easily. But, if banana has been short (because has been sliced), slicing process was very difficult. It can produce a bad quality and endangering the operator. For that, the design of Banana Slice Machine is needed. This machine capable to produce banana slice in uniform thickness, and can improve the productivity. Needs and problems identification is done by observation and interview method. Objects of identification are the operator and owner of home industry. After that, designer has to collect data which can support the design processes. Based on the problems and data, we create some concept design and select the best concept by screening and scoring method. Development of best concept accompanied with engineering analysis of critical components, ergonomic analysis and also environment analysis. In the end of development process, we make a prototype and calculate the manufacturing cost of this prototype. The manufacturing cost of this prototype is ± Rp.1.600.000,-. This machine have capacities 60 kg/hour, with 2 slice variation (straight and slope), and uniform of slice thickness in result.

Key word: slice, banana crackers, design, home industry