

ABSTRACT

Indonesia is known as one of the leading coffee producers with a wide variety of varieties, which has increased domestic coffee consumption. Aroma Kahuripan is a ready-to-drink coffee beverage brand that capitalizes on this opportunity. However, the production process produces coffee grounds waste that is simply dumped in the production yard, polluting the environment. Coffee grounds waste not only has a negative impact, but also has the potential to be processed into economically valuable products through proper processing. Coffee grounds briquettes are an innovative solution to overcome the problem of coffee grounds waste that has the potential to pollute the environment. By utilizing the potential that exists in this waste, briquette products not only reduce the negative impact on the environment but also provide additional economic value. The briquette design process was conducted using the Quality Function Deployment (QFD) method by considering customer needs and desires. The designed briquettes consist of 9% adhesive and 91% coffee grounds waste. The designed briquettes have a block shape with a size of 3.2 x 3.2 x 4.5 cm. Quality tests showed that the briquettes had a moisture content of 1,66%, ash content of 2,92%, fly content of 58,72%, bound carbon content of 36,7%, calorific value of 6560 cal/gram, burning rate of 0,090 grams/minute, and ignition duration of 36 seconds. These indicators show that the briquettes produced are able to meet most users needs. The financial feasibility analysis using the Benefit Cost Ratio (BCR) method showed a value of 1.30, indicating the financial viability of these briquettes.

Keywords: Coffee Grounds Waste, Briquettes, Quality Function Deployment, Benefit Cost Ratio