

Abstrak

Penggunaan alat tradisional seperti sabit dalam proses pemanenan padi masih banyak dijumpai di kalangan petani di Indonesia, terutama karena keterbatasan luas lahan dan kondisi geografis yang tidak memungkinkan penggunaan mesin modern seperti *combine harvester*. Pengembangan mesin PEMOTONGan padi dapat menggunakan beberapa metode yaitu metode *Quality Function Deployment*, *Value Engineering*, *Kansei Engineering*. Penelitian ini mengembangkan mesin pemotong padi yang ergonomis dan sesuai dengan kebutuhan emosional menggunakan metode *Kansei Engineering*. Metode *kansei engineering* merupakan metode yang digunakan untuk menerjemahkan perasaan atau emosi konsumen yang akan dimasukkan kedalam parameter produk yang akan di desain. Metode ini dimulai dengan pengumpulan *Kansei Word* melalui wawancara yang menghasilkan 11 pasangan kata *kansei* yang merepresentasikan persepsi dan keinginan petani terhadap mesin pemotong padi. Kata-kata tersebut kemudian divalidasi melalui kuesioner, dilanjutkan dengan uji kecukupan data, uji validitas dan uji reliabilitas data. Hasil analisis *Kansei* digunakan untuk merancang beberapa alternatif desain mesin, dari mana dipilih desain akhir berupa mesin pemotong padi elektrik. Mesin pemotong padi elektrik dilengkapi motor berkecepatan 22.000 RPM, baterai 20 Ah dengan tegangan 188V dan mampu bekerja hingga 4,17 jam. Desain ini memberikan peningkatan signifikan dalam efisiensi, kecepatan, dan kenyamanan kerja dibandingkan metode panen tradisional. Penelitian ini menunjukkan bahwa metode *Kansei Engineering* efektif dalam merancang produk yang tidak hanya fungsional tetapi juga memenuhi kebutuhan emosional pengguna.

Kata kunci: Kansei Engineering, Kansei word, Mesin pemotong padi.

Abstract

The use of traditional tools such as sickles in the rice harvesting process is still widely found among farmers in Indonesia, especially due to limited land area and geographical conditions that do not allow the use of modern machines such as combine harvesters. The development of a RICE CUTTING machine can use several methods, namely the Quality Function Deployment method, Value Engineering, Kansei Engineering. This study developed an ergonomic rice cutting machine that is in accordance with emotional needs using the Kansei Engineering method. The Kansei engineering method is a method used to translate consumer feelings or emotions that will be included in the product parameters to be designed. This method begins with collecting Kansei Words through interviews which resulted in 11 pairs of Kansei words that represent farmers' perceptions and desires for rice cutting machines. The words were then validated through a questionnaire, followed by a data adequacy test, a validity test and a data reliability test. The results of the Kansei analysis were used to design several alternative machine designs, from which the final design was chosen in the form of an electric rice cutting machine. The electric rice cutting machine is equipped with a 22,000 RPM motor, a 20 Ah battery with a voltage of 188V and is capable of working up to 4.17 hours. This design provides significant improvements in efficiency, speed and work comfort compared to traditional harvesting methods. This study shows that the Kansei Engineering method is effective in designing products that are not only functional but also meet the emotional needs of users.

Keywords: Kansei Engineering, Kansei word, Rice cutting machine.