

# PENGEMBANGAN DAN PERANCANGAN ALAT PENUMBUK BUMBU MENGUNAKAN METODE QUALITY FUNCTION DEPLOYMENT DAN MACROERGONOMIC ANALYSIS AND DESIGN

## Studi Kasus UMKM Aneka Bumbu Raja Imogiri Bantul

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### ABSTRAK

UMKM Aneka Bumbu Raja merupakan usaha yang bergerak pada pembuatan produk bumbu basah yang berlokasi di Dusun Pucunggrowong RT. 03 Desa Karang Tengah, Kecamatan Imogiri, Kabupaten Bantul. Pada bulan September 2021 pemilik UMKM diajak oleh sebuah lembaga untuk mengikuti program omset target 300 juta / bulannya dengan tujuan mengembangkan UMKM menuju industri maju. Namun pemilik merasa masih belum mampu dengan kondisi produksi saat ini yang masih berada jauh dibawah target. Untuk produksi saat ini saja omset yang masih dicapai baru sekitar Rp. 60.000.000 / bulan. Dengan permasalahan yang ditimbulkan maka perlu dilakukan usulan perbaikan dengan mengembangkan dan melakukan perancangan ulang terhadap alat yang sudah ada dengan melakukan beberapa *improvement* terhadap alat tersebut agar jumlah produksi dapat maksimal. Metode yang digunakan dalam penelitian ini yaitu *Quality Function Deployment & Macroergonomic Analysis And Design*. Hasil rata-rata perbandingan alat pembanding dan alat usulan menunjukkan bahwa nilai rata-rata persentase alat pembanding sebesar 74,44 % dan nilai rata-rata persentase alat usulan sebesar 89,77%. Sehingga alat usulan dapat dikatakan lebih unggul dibandingkan alat pembanding. Sehingga alat usulan dapat dikatakan lebih unggul dibandingkan alat pembanding. Akhir perancangan menyatakan bahwa desain alat dibuat menjadi semi otomatis, posisi dudukan lumpang disesuaikan dengan tinggi *popliteal* populasi pekerja dengan persentil 95, bagian alu pada alat tetap terbuat dari kayu, diberikan sepasang roda gigi payung, bagian atas dari lumpang diberikan penutup *acrylic*.

**Kata Kunci:** *Quality Function Deployment, Macroergonomic Analysis And Design, Improvment, Perancangan, Ergonomi*

***DEVELOPMENT and design of a spice grinder using the quality function deployment method and macroergonomic analysis and design***

***Case Study of MSME Various Seasonings Raja Imogiri Bantul***

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**ABSTRACT**

*MSME Aneka Bumbu Raja is a business that is engaged in the manufacture of wet seasoning products located in Pucunggrowong Hamlet, RT. 03 Karang Tengah Village, Imogiri District, Bantul Regency. In September 2021, MSME owners were invited by an institution to participate in a target turnover program of 300 million / month with the aim of developing MSMEs towards advanced industries. However, the owner feels that he is still unable to cope with the current production conditions, which are still far below the target. For the current production alone, the turnover that is still achieved is only around Rp. 60,000,000/month. With the problems that arise, it is necessary to propose improvements by developing and redesigning existing tools by making several improvements to these tools so that the amount of production can be maximized. The method used in this research is Quality Function Deployment & Macro-ergonomic Analysis And Design. The results of the average comparison of the comparison tool and the proposed tool show that the average value of the comparison tool percentage is 74.44% and the average percentage value of the proposed tool is 89.77%. So that the proposed tool can be said to be superior to the comparison tool. So that the proposed tool can be said to be superior to the comparison tool. The final design states that the design of the tool is made semi-automatic, the position of the mortar seat is adjusted to the popliteal height of the working population with the 95th percentile, the pestle part of the tool is still made of wood, a pair of umbrella gears is provided, the top of the mortar is given an acrylic cover.*

***Keywords:*** *Quality Function Deployment, Macroergonomic Analysis And Design, Improvement, Perancangan, Ergonomi*