

## **ABSTRACT**

Kedai Sudut Mampir is a micro, small, and medium enterprise (MSME) engaged in the coffee beverage business, established in 2020. In the drink delivery process, Kedai Sudut Mampir uses an existing tray that is small and lacks ergonomic handles. There are ergonomic issues with the tray used, resulting in frequent drink spills and discomfort experienced by employees, particularly in the hands, shoulders, and back. Therefore, Kedai Sudut Mampir requires the design of a drink delivery aid that can provide more comfort and efficiency for employees. When employees deliver drinks using the tray, they often feel uncomfortable due to unfamiliarity with the tray and its poor design. Several factors contribute to this discomfort, such as the tray being too small, the shape being ergonomically unfit, and the slippery material causing drinks to fall and spill frequently. The author applied the Ergonomic Function Deployment (EFD) method. Data collection was carried out using several approaches, including observation, interviews, the Nordic Body Map (NBM) questionnaire, REBA analysis, and data processing using the House of Ergonomic. Based on the analysis, the selected material for the proposed design is Polypropylene, with dimensions of 370 x 250 x 70 mm. The proposed design includes ergonomic handles, holes to securely hold drink cups, and a compartment for storing straws. Validation was conducted using Jack 8.2 software by comparing the REBA score of the existing product with the proposed product. The REBA score improved from 6 (medium risk) in the existing product to 2 (low risk) in the proposed product, indicating that the proposed design offers better comfort and safety compared to the current tray.

**Keywords : ergonomic , tools, Ergonomic Function Deployment, REBA, NBM**