

ABSTRACT

The development of technology and the trend of remote working have led to an increase in the number of workers in the e-commerce-based dropshipping sector. Dropshipping offers flexibility in their work system, but this work system also poses challenges in the form of high mental workload. In this study, the research aimed to measure and analyze the mental workload of remote Dropshipper workers using the *subjective workload assessment technique* method through a prototyping technique approach. SWAT evaluates workload based on three main dimensions, namely T (time load), E (effort load), and S (stress load). Data collection was done through sorting 27 SWAT cards by 30 Dropshipper workers consisting of part-time and full-time workers. Data processing was tested using *Spearman Rank's Order Correlation* which serves to show the relationship between the order of workload cards with three SWAT dimensions. The test results show that dimension T (time load) is the most dominant workload felt by the majority of Dropshipper workers. This finding was validated through direct interviews which reinforced that time pressure is a major issue in Dropshipper work patterns. Based on these results, the researcher designed a proposed work system based on structured timing and flow of work activities as an ergonomic solution to reduce mental workload. This research is expected to be a reference.

Keyword : Mental Workload, Remote Worker, Dropshipper, E-commerce, SWAT, *Prototyping Technique, Spearman Rank's Order Correlation.*