

ABSTRAK

Penelitian ini dilatarbelakangi oleh permasalahan sistem kerja yang dipengaruhi oleh beberapa faktor, yaitu faktor lingkungan, faktor mesin/peralatan, dan faktor kondisi pekerjaan. Tujuan penelitian mengetahui seberapa besar tingkat kelelahan pekerja berdasarkan metode *Macro Ergonomic Analysis and Design* (MEAD) di Giyura Furniture. Serta memberikan usulan perbaikan sistem kerja menggunakan metode *Macro Ergonomic Analysis and Design* (MEAD) agar dapat meningkatkan produktivitas pekerja di Giyura Furniture. Data yang digunakan berupa data primer, yaitu mengukur denyut nadi pekerja dihitung dengan Apple Watch, data varian berupa lingkungan kerja fisik, peralatan kerja, kondisi pekerjaan, dan sistem organisasi dan matriks varian. Hasil penelitian menunjukkan Tingkat kelelahan pekerja berdasarkan metode *Macro Ergonomic Analysis and Design* (MEAD) menggunakan perhitungan *cardiovascular load* (%CVL) berada pada rentang $30,16\% \leq X \leq 46,25\%$ sehingga diperlukan perbaikan. Usulan perbaikan dilakukan dengan menghitung kebutuhan waktu istirahat pekerja di bagian produksi pada kegiatan pembuatan sofa bed didapatkan hasil sebesar 72,23 menit/hari kerja, sehingga waktu istirahat yang hanya 60 menit/hari kerja perlu dilakukan penambahan waktu istirahat sebesar 12 menit/hari kerja supaya pekerja tidak mudah kelelahan dan dapat meningkatkan produktivitas pekerja di Giyura Furniture.

Kata Kunci: *Sistem Kerja, MEAD, Waktu Istirahat, Produktivitas*

ABSTRACT

This research is motivated by work system problems which are influenced by several factors, namely environmental factors, machine/equipment factors, and work condition factors. The aim of the research is to determine the level of worker fatigue based on the Macro Ergonomic Analysis and Design (MEAD) method at Giyura Furniture. As well as providing suggestions for improving work systems using the Macro Ergonomic Analysis and Design (MEAD) method in order to increase worker productivity at Giyura Furniture. The data used is primary data, namely measuring the worker's pulse using an Apple Watch, variant data in the form of the physical work environment, work equipment, work conditions, and organizational systems and variance matrices. The research results show that the level of worker fatigue based on the Macro Ergonomic Analysis and Design (MEAD) method using cardiovascular load (%CVL) calculations is in the range of $30,16\% \leq$ The proposed improvement is carried out by calculating the rest time requirements of workers in the production section in the sofa bed making activity, the result is 72,23 minutes/working day, so that the rest time is only 60 minutes/working day, it is necessary to increase the rest time by 12 minutes/working day so that Workers do not get tired easily and can increase worker productivity at Giyura Furniture.

Keywords: Work System, MEAD, Rest Time, Productivity