A study of critical factors to accomplish ergonomics implementation using analytic hierarchy process

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This paper deals with investigated critical factors to accomplish ergonomics implementation. Six critical factors, i.e., management responsibility, ergonomics knowledge, social enforcement, employee involvement, current ergonomics problem situations, and supporting ergonomics resources were considered under the four criterions, work satisfaction, musculoskeletal disorder problem, productivity, and cost of remedy and compensation. The prospective study of the critical factors was performed by using analytic hierarchy process (AHP) approach in order to investigate how much they were deeply concerned with a success of ergonomics implementation. To prioritize the critical factors, the study used opinions and comments from twenty one persons who have involved in ergonomics both in practical and theory. They were segregated into two groups. The first group consists of ten professors from 6 academic institutes who have more experiences in ergonomics and the other group contained eleven employees from nine manufacturing industries who have been dealing with ergonomics in their organizations. The results suggest that the first two priorities to succeed ergonomics implementation were management responsibility and employee involvement respectively. There were some significant differences between the academic and the manufacturing practitioner opinions that should be considered carefully to formulate the strategy for implementing ergonomics successfully.

Keywords: Ergonomics implementation, Critical factor, Analytic hierarchy process

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