

Ergonomic design of smart bags: an analytical study

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Abstract:

This research seeks to explore the ergonomics factors in smart bags designing that are covered in previous literature and reviewed by the researchers, with the purpose of examining how much contribution is made by ergonomics and thus utilizing its various axes in the design in general, bags in particular. This is in addition to illustrate its compatibility with the current era being promoted globally in product design. The significance of the research emerges from being an endeavor to keep pace with the most recent advances in smart design and wearable technology with relation to supporting the clothing accessories industry with brand-new designs that satisfy functional and aesthetic requirements.

Both researchers adopted the inductive approach based on reading the past literature and the descriptive analytical approach. The analytical part dealt with analyzing the ergonomics of a collection of smart bags via comprehending and understanding the findings of previous studies. According to the research, giving due attention to ergonomic factors during design stage contributes significantly to promoting the functional efficiency of products to be commensurate with the characteristics of the target consumer. It can be stated that the ergonomic factors of smart bags must be assessed in terms of functional and aesthetic aspects, the level of safety and a sense of comfort. Categorizing the use of ergonomic criteria in the field of smart bags is represented in a number of categories, namely the location of the bag, theft control, the ability to charge smart devices through it, and the use of ultrasound sensors to track the owner's bag. Both researchers recommend that the ergonomic aspects of fashion design and its accessories, especially smart ones, are to be considered; they also recommend conducting several research studies that address the impact of ergonomic considerations on fashion design and its accessories.

Keywords:

Bags, smart bags, ergonomics, smart design.