

Selection of Product Design Prominent Factors Using Analytic Hierarchy Process for Developing Countries

Farhad Ahmed and Dr. A.R.M. Harunur Rashid

Department of Mechanical and Chemical Engineering, Islamic University of Technology,
Gazipur, Bangladesh

farhad10000@hotmail.com, a_rashid@iut-dhaka.edu

Abstract

This paper presents a classification of Product Design Methodologies for manufacturing refrigerator in Bangladesh: Design for Production, Design for Manufacturability, Design for Aesthetics, Design for Environment and Design for Ergonomics. Each product design methodologies were distinguished with well explanation and pictorial illustration. The selection of the most appropriate methodology for a particular product (refrigerator) in a particular market/country may depend on following criteria or variables: sales quantity, product durability, cost saving, ease on production etc. Analytic Hierarchy Process (AHP) could be a very useful tool in comparative study of different product design methodologies based on different criterion for selection of the most appropriate methodology. So, how Analytic Hierarchy Process (AHP) can be used for selection of the most appropriate product design methodology for manufacturing refrigerator in Bangladesh is also discussed in this paper.

Keywords

Product design, Decision Analysis, Analytic Hierarchy Process