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APPLICATION OF THE PARAMETRIC COST ESTIMATION IN THE TEXTILE SUPPLY CHAIN

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ABSTRACT

In a current high competitive business environment, cost estimation is a strategic tool in order to make decisions related to products during their design and development phases. Against traditional estimation methods, that needs to wait until the technical description of the product is completed, there exist new methods allowing to estimate the cost quickly and with an acceptable accuracy. Complementarily to cost management methods (for example, standard cost management analytic or Activity-Based Costing techniques), such new cost estimation methods may shorten the design phase when the rapidity of the conception is needed. This way may be valid when there is a huge number of models, and/or high level of new design rate.

This paper compares various cost estimation methods in the textile context : their advantages, drawbacks, and applicability in the product life cycle. The parametric cost estimation model is particularly suited to the earliest stage of design-to-cost approach. It is widely used in different industrial domains such as aerospace, aircraft, telecommunication and automotive industries in order to accelerate and drive the product development process. Even though the industrial contexts seem to be different, this paper shows several possibilities of application of parametric cost estimation methods in the textile and garment industries, and the procedures and tools required for their computation. Finally, this approach has been applied to estimate the unitary cost of a representative family of wool textile fabrics.

Keywords: Cost estimation, parametric costing, product development, product lifecycle,

Introduction

The way textile products are delivered to consumers in terms of lead-time, references and especially in terms of cost, has changed radically during the last years. Today, the competitive environment has become more and more hostile (Kilduff, 2000). The main causes of this situation are the textile pipeline globalization process, the high demand pressures and the speed in the technological changes. All of these factors have different implications depending on the geographical region in the world.