



What virtual reality can offer to the furniture industry

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ABSTRACT

The U.S. furniture, home furnishings, and textile industries are faced with threats from less expensive imports and as a result must become more strategic with regard to consumer preferences, effective marketing, and supply chain management. As a significant market for textiles, the sustainability of furniture and home furnishing industries is vital to the U.S. textile industry. This paper focuses on the furniture industry. The sustainability of the furniture industry lies on product variety, mass customization, and speed to market based on understanding of consumer preferences. Authors suggest Virtual Reality as a viable tool that may offer ultimate solutions to many identified problems that the furniture industry faces. Finally, the authors propose the Virtual Reality Integrated System (VRIS) as an innovative way for the U.S. furniture industry to more effectively address this situation and ultimately gain a more competitive stance in the furniture marketplace and, as a result, have positive impact on the textile industry.

Keywords: furniture industry, textile industry, virtual reality, virtual prototyping, market research, e-commerce

Introduction

The United States furniture and home furnishings industry, which is a \$125 billion market, is currently faced with significant business failures (Richardson, 2000; Buehlmann & Schuler, 2001; Spalding, 2001). The U.S. household furniture industry is struggling to survive as China becomes the dominant furniture exporter to the United States, accounting for one-third of U.S. furniture imports (Schuler & Buehlmann, 2003). Furthermore, the furniture industry has a large impact on the textile industry that supplies upholstery fabrics. As a significant market for textiles, the sustainability of furniture and home furnishing industries is vital to the U.S. textile industry. Since the U.S. furniture industry cannot compete with Chinese

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imports on cost alone, the industry must become more adept at responding to consumers' tastes and personal needs through the integration of effective marketing and supply chain management.

To date, the U.S. furniture industry has been unable to deploy effective marketing strategies that grasp those significant market opportunities, primarily because the industry does not understand consumers' furniture buying behaviors. Except for a few manufacturers who have branded retail outlets such as Ethan Allen, La-Z-Boy, Thomasville, and Bassett, most do not have direct channels to consumers. As a result, the industry has difficulty in researching target markets to understand what furniture consumers like and dislike and why.

* They are equally contributed.