

Shipping Considerations and Furniture Design: A Study for Achieving Economic Competitive Advantage

Alamir Ahmed Shawky Ahmed Oreabe

Assistant Professor at the Interior Design and Furniture Department, Faculty of Applied Arts - Damietta University, alamirshawki@du.edu.eg

Aya Lotfy Zakarya Habbak

Assistant Professor at the Interior Design and Furniture Department, Faculty of Applied Arts - Damietta University, aya_habbak@du.edu.eg

Ahmed Haseeb

Lecturer at the Interior Design and Furniture Department, Faculty of Applied Arts - Damietta University

Abstract:

Global furniture exports were valued at around \$328.6 billion in 2021, compared to around \$263.8 billion in 2020, representing a growth of about 24.6%. Egypt's furniture exports in 2022 amounted to \$244 million with shipping costs being a critical factor in the success of export operations. Shipping costs are influenced by various factors such as furniture size, weight, and shipping distance. The design and dimensions of furniture play a vital role in the shipping process. For import-dependent countries that lack local production capacity, efficient furniture shipping becomes crucial. This research highlights the importance of designing furniture that complies with shipping standards, especially container dimensions, to help exporting countries gain a competitive advantage by reducing shipping costs. This reduction lowers the final consumer price and enhances the product's attractiveness in global markets.

The research problem concerns several questions: How can furniture be designed to meet shipping standards while achieving economic and competitive advantages? What are the shipping standards for furniture? What are the dimensions of shipping containers? How can the design of furniture pieces be adjusted to align with shipping requirements? Should furniture pieces be designed for disassembly to facilitate shipping?

Therefore, the research aims to establish criteria for designing furniture suitable for shipping to achieve competitiveness and economic benefits through theoretical and applied studies of select furniture pieces. The research is important because it improves transportation and distribution processes' efficiency and financial benefits, reduces shipping and storage costs while effectively meeting customer needs, and contributes to enhancing companies' market position and gaining a competitive advantage.

Research Problem: The research problem revolves around the following questions: How can furniture be designed to meet shipping standards while achieving economic and competitive advantages? What are the shipping standards for furniture? What are the dimensions of shipping containers? How can the design of certain furniture pieces be modified to align with shipping requirements? Or should the pieces be originally designed for disassembly to facilitate shipping?

Research Hypotheses: 1 Furniture designed according to shipping standards will yield economic and competitive advantages. 2 Shipping standards for furniture include dimensions compatible with shipping containers. 3 Modifying furniture designs to align with shipping standards enhances economic competitiveness. 4 Designing furniture pieces as disassembled units improves shipping efficiency.

Research Objectives: This study aims to: Investigate furniture shipping standards and understand the requirements for effective and efficient furniture shipping. Analyze container dimensions to determine the measurements and scales necessary during furniture design to ensure compatibility with shipping methods. Design furniture pieces suitable for shipping by developing new ideas and designs that align with shipping standards to reduce costs. Evaluate the economic and competitive benefits by studying the impact of applying shipping standards and furniture design on enhancing economic efficiency and market competitiveness. Provide practical recommendations and application guidelines for the industry to maximize the benefits of applying shipping standards to furniture design.

Importance: The importance of this research lies in the following points: Efficient and economical furniture shipping contributes to transportation and distribution efficiency, cost reduction, and effective customer satisfaction, enhancing companies' market position and competitive edge. Understanding shipping standards and designing furniture appropriately for shipping improves shipping process efficiency and reduces costs. Achieving a competitive advantage through the application of shipping standards in furniture design allows companies to offer flexible furniture that meets customer needs and aligns effectively with shipping requirements. Efficiently designed shipping-friendly furniture reduces shipping and storage costs, improving companies' economic efficiency. Waste reduction: Designing furniture that aligns with shipping standards can

minimize waste and damage during shipping and transportation, promoting business sustainability. Meeting market needs: Research can guide companies toward designing furniture that better meets market needs and customer expectations, enhancing customer satisfaction and increasing success in the market.

Research Methodology: Descriptive Analytical Method: Describing and analyzing furniture shipping standards and containers to understand the current conditions of furniture shipping.

Results: Using disassemble and reconfigurable furniture provides economic and competitive advantages, especially for export-oriented furniture. It occupies less space within shipping containers, thus reducing the overall product cost. Furniture pieces can be designed originally to be disassemble or existing pieces can be modified to achieve this feature. Designing furniture that aligns with shipping standards reduces shipping costs and enhances product attractiveness in global markets, thereby promoting international furniture trade.

Keywords :

Considerations: Shipping Standards, Furniture Design, Competitiveness economic efficiency, Furniture Export

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