

## **Develop a methodology to improve the quality of design of metal furniture products in light of the concepts of systems theory**

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### **Abstract:**

The process of product development in general, and the metal furniture product in particular, is what determines the ability of industrial enterprises to continue their products in competition within the local and global markets. Hence the question arises: Are the development and improvement processes that take place on metal furniture products according to a specific system and methodology that deals with all the standards necessary for its development so that it is a process capable of accommodating the functions of the basic products (usual, engineering, economic and environmental) or not?

Hence, the aim of the research was to study a quality system that is applied within the product design process as an entry point for the development of the metal furniture industry. To achieve this goal, some concepts have been discussed, such as the concept of quality, who is responsible for the quality system, and how to apply them in the design process? The research tried to reach a system to improve the quality of metal furniture through the following research axes: the concept of quality, analysis of the stages and steps of applying the quality system, a case study through the application of the quality system within the design of a product for metal furniture [Locarbezia chair].

### **Keywords:**

systems theory, system concept, system components, quality, product design