## Physical and Formal Equilibrium in Furniture Dr. Wael Mohammed Kamel El Sayed Afifi Lecturer at Interior Design Department - Higher Institute of Applied Arts. the 5th Settlement - New Cairo <u>Waeelkamel2000@yahoo.com</u>

## Abstract:

Balance is an essential element in furniture design that is overlooked by many, despite its utmost importance, because of its design dimensions, and security and safety dimensions.

The skill of formal design balance in design is an integral part of the design process as it is the basis upon which the components that determine the aesthetics of design in relation to the function, where it is possible to do a balanced design work based on new and non-typical foundations and achieve durability and strength, where the creative designer invents new designs It is atypical in shape as it addresses the irrational to bring out a new way out on the eye, in addition to adhering to the design standards during design and with achieving the indispensable balance in all types of different designs and their fields.

As for the physical equilibrium, it must be represented in the field of furniture on specific bases and criteria. The designer can produce the best furniture designs that achieve the principle of the required physical equilibrium, but without the routine use of the usual thought, which shows the prestigious effect of the concept of true equilibrium, which shows the new balanced innovative models in the field of design Furniture.

Balance is employed as an essential element in the design process in order to obtain the job that achieves user comfort while achieving strength and durability in the design. Balance is important and necessary for the integration of furniture, as it plays an important role in the aesthetics of composition or design, achieving a sense of psychological comfort. The interior designer has a desire to produce balanced furniture. Nature is the source of man's learning how to achieve balance, and man uses it in the matters of his life.

Criteria for evaluating design and physical balance after the design process includes understanding and analyzing the balance approach in furniture and then clarifying the level of balance included and done through Autodesk Inventor 2017, a program for making mechanical designs and conducting tests.

## Therefore, the research aims to:

-Knowing the formal design equilibrium and the physical equilibrium in furniture, as they are part of furniture design that evokes new designs and opens new horizons. Where we can better understand how to achieve it and the problems associated with its solutions, to reach the rules that must be followed when designing balanced furniture.

-Furniture design needs to use the skills of the interior designer to make it better for the user, and given the huge developments in the field of technology, and the need to take advantage of modern technologies in the development of furniture design methods, which contributed to achieving intellectual flexibility in design that was impossible to achieve through traditional media. It can be implemented regardless of its complexity, so the concept of balance appeared in the furniture.

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-In reference to the importance of formal and physical equilibrium in furniture, the research clarifies this concept, as it depends on proper application, so the research clarifies and analyzes it, to reach the state of equilibrium it aims at.

## **Keywords:**

(The Concept of Furniture, Design Balance, Physical Equilibrium)