

توظيف التحليل المورفولوجي كمنهجية لإستيلاد سيناريوهات تطوير مبتكرة؛ يسهل بنائها وتقييمها وفرزها .. (دراسة حالة على نظام أثاث معدني)

**Using morphological analysis as a methodology in generating creative development scenarios; those can be easily prepared, evaluated and sorted.
(Case study on metal furnishing system)**

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Abstract:

Keywords: Morphological analysis, Scenario building, problem solving, thinking methods, system functions

The problem of research is the need for a creative and participatory methodology that used in the development of metal furnishing and construction systems, and help designers to generating a large number of potential structural alternatives that can be formed, sorted and evaluated according to predefined filters and criteria into virtual fields. Hence the research questions are: How can build design methodology by using the principles of morphological analysis? How can this methodology be used to generate potential development alternatives? What are the criteria for evaluating and sortin possible development scenarios?

Accordingly, the main aim of the research is based on using morphological analysis as a methodology in generating creative development scenarios; those can be easily prepared, evaluated and sorted (case study on metal furnishing system). This aim has been verified by the following hypothesis: the use of the proposed methodology in solving design problems will increase the creative & logical capabilities of the designer and provide several scenarios for innovative solutions that contribute to the development of metal furnishing systems. The aim have achieved according to descriptive analysis methodology that contains 3 themes. First: the morphological analysis: characteristics & techniques, second: Ways to build virtual scenarios for creative ideas; and the third, a proposing methodology for morphological analysis used in building product development scenarios. The research concluded with some results such as:

- The decline of Egyptian exports of furnishing systems, due in some respects to the design process. The solution to this decline requires the adoption of an integrated methodology based on the use of creative and participatory methods such as morphological analysis. In addition to using digital programming tools & employing experts, in order to generating development scenarios that support the competitiveness of these systems.

The proposed methodology for furnishing systems development includes the following steps: diagnosis of the problem, identification of development requirements, functional construction analysis, disassemble the system, innovate alternatives to system elements and re-installed in a tangled matrix, generate possible scenario, evaluate & sort solutions space and finally build an innovative and applicable model development scenario.