

# The Industrial Designer Role in Reducing the Economic & Environmental Damage Resulting from the Rapid Replacement of Products

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## Abstract:

In the past few years, the world has witnessed rapid and unprecedented development in all areas of life, especially the fields of basic and applied sciences, the most prominent of which are production techniques and raw materials, represented by modern production methods and raw materials; Which led to the development of generations of products that are still under their shelf life, because these modern generations bear the digital character and the feature of intelligence; Which led to the end of the life cycle of previous generations, despite being usable, and performing their basic functions efficiently. This is considered a huge waste of resources of all kinds, as well as harming the environment, especially in light of the global trend towards sustainability.

As the industrial designer is one of the stakeholders of the system of adding products to the world markets; He takes upon himself to find appropriate solutions to keep pace with the rapid replacement of products with the least possible economic and environmental damage.

The research aims to determine the role of the industrial designer in reducing the economic and environmental damage resulting from the rapid replacement of products through:

- 1- Proposing a set of solutions that would increase the useful life of the products, and renew the use of previous products whose life cycle has already ended.
- 2- Develop new design considerations that serve as a guide for industrial designers to design products with a long and renewable life, and these considerations are added to the recognized basic design requirements and considerations.

The research followed the deductive approach, and its results came with a proposal for a set of solutions that are activated during the entire life cycle of the product leading to the reduction of its rapid replacement, in addition to developing design considerations aimed at designing products with a long useful life, and also characterized by the possibility of reusing them again in a new function.

## Keywords:

Innovation management; innovation management techniques and tools; innovation