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IMPLEMENTATION OF BEHAVIOR CHANGE MEASURES FOR THE CIRCULAR ECONOMY IN HOUSEHOLDS

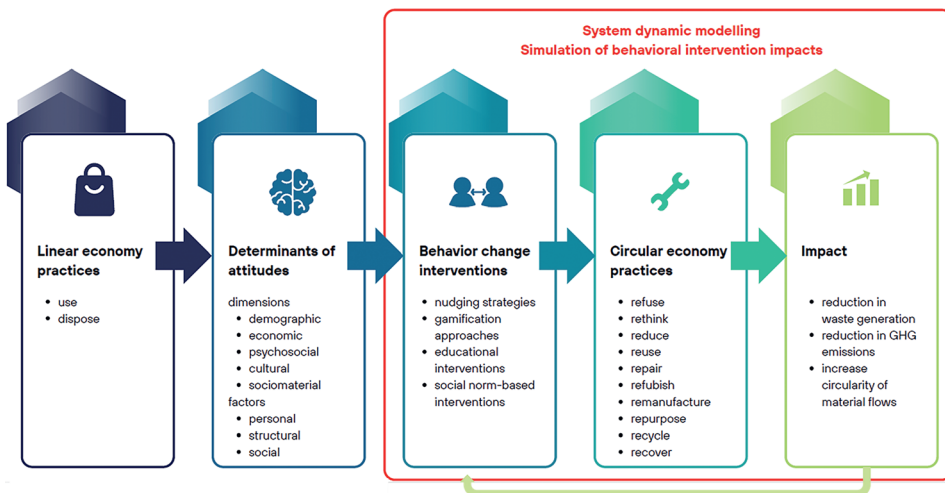
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Abstract – The circular economy is considered as a potential solution to the global environmental challenges of the 21st century, including climate change, resource scarcity, rising pollution, and related issues. However, the implementation of circular economy principles in households remains insufficient, largely due to limited awareness and engagement. Human behavior is influenced by many different factors and is often resistant to change. An integrated approach is necessary to change behavior patterns. The aim of this study is to assess the impact of behavioral interventions on household habits in relation to the implementation of circular economy principles. The study conducted a thematic literature review covering 98 published scientific articles on research related to the implementation of behavioral interventions to promote principles of the circular economy. Based on the results obtained, a system dynamics model was developed using Stella Architect to more effectively evaluate the types of interventions and their impact. The results show the impact of four main groups of interventions: (1) nudging strategies, (2) gamification approaches, (3) social norm –based interventions, and (4) education interventions, and their impact on changes in households. The developed model indicates that the interaction between different interventions significantly influences human behavior and can accelerate the transition towards the implementation of circular economy principles. However, further research is needed to better understand the sustainability of behavioral interventions and to identify the most effective approaches.

Keywords – Behavior change interventions; educational interventions; gamification approaches; nudging strategies; social norm-based interventions



Framework of behavior change interventions influencing the adoption of circular economy practices and their environmental impact