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STRUCTURING OBJECTIVES BASED ON VALUE-FOCUSED THINKING METHODOLOGY: CREATING ALTERNATIVES FOR SUSTAINABILITY IN THE BUILT ENVIRONMENT

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Abstract

The sustainability of the built environment has been the subject of numerous articles in the literature in recent years due to its importance for society. In this article, based on applying Value-Focused Thinking methodology (VFT) and the opinion of actors who are active in the construction industry, objectives are set and action alternatives are created. This has enabled new ideas to emerge that may well contribute towards rationalizing and using raw materials in buildings, thus leading to the more efficient use of available resources which, as a result, will have a positive impact on the sustainability of companies. VFT was used in this study to create more sustainable alternatives for the use and occupation of a building. In order to identify the strategic objective and the fundamental objectives for the decision context in question, three pillars of environmental sustainability were considered: improving management and the generation of energy; rationalizing and reusing water and wastewater; and managing wastes. From the analysis of the attributes associated with the fundamental objectives, alternatives were proposed and analyzes were performed for the problem under study. This led to proposing actions that should be implemented during the design phase and construction, with a view to obtaining positive results in terms of the sustainability of the built environment. A case study was presented in a construction project that was at a design stage. As a result, the company created alternatives that were prioritized using a multicriteria method, which included technical designs, specifications of more durable materials, automation, and other matters that can be implemented during the construction stage so as to provide a more sustainable built environment.

Keywords: Sustainability; Built environment; Sustainable construction; Value-Focused Thinking (VFT).

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