Development of stakeholder roles in supporting material value conservation of plastic packaging using brain-writing and interpretive process

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Abstrak

According to the material-value-conservation paradigm, all material should not be considered to be marginal material, but rather to be valuable resource of which its value should be conserved. Degradation of material value may be prevented by designing for material value conservation that will support easier and faster processes for mechanical recycling; this will produce better quality of product and improve its financial viability. Therefore, it supports resource conservation schemes for plastic materials, reduces material waste, and also promotes a new method of environmental protection. A material value conservation implementation needs appropriate and strategic stakeholder roles in order to optimize the line of sight among stakeholders. Brain-writing and interpretive-process techniques of analysis were implemented in this research by interviewing competent resource persons representing every category of stakeholder (including government institutions, such as the regulator and law-enforcement agencies; plastic-packaging producers; plastic-packaging purchasers; plastic-waste collectors, and plastic recyclers), and then analyzing their responses to determine the appropriate strategic roles. Results of the two methods suggest a list of stakeholders with their strategic roles being to support the material-value-conservation aims in the context of quality and value of plastic-waste improvements, as well as increasing the quantity of waste accepted by plastic recyclers. Stakeholder roles provided valuable information and directions for implementing management of plastic materials and plastic packaging products, as well as its post-consumer materials as valuable waste. The new paradigm, which is supported by the appropriate roles of stakeholders will have a broader impact and provide more benefits through optimizing plastic-waste utilization, especially for regions with high density of people and high consumption rate of plastic packaging products.