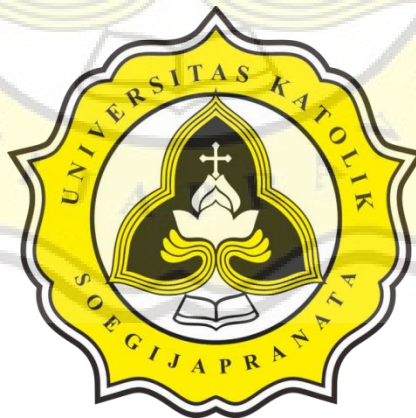


**EVALUATION ON THE POTENTIAL DEVELOPMENT OF THE
EXTENDED PRODUCER RESPONSIBILITY INITIATIVES FOR
MULTILAYER PLASTIC PACKAGING IN SEMARANG CITY**



Thesis

**Submitted to Fulfil a Final Assignment for
Master Program on Environment and Urban Studies
by Moh. Nurhadi (18.O1.0013)**



**MASTER PROGRAM ON ENVIRONMENT AND URBAN STUDIES
SOEGIJAPRANATA CATHOLIC UNIVERSITY SEMARANG**

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HALAMAN PENGESAHAN



Judul Tugas Akhir: : EVALUATION ON THE POTENTIAL DEVELOPMENT OF EXTENDED
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Diajukan oleh : Mohammad Nurhadi

NIM : 18.01.0013

Tanggal disetujui : 25 Oktober 2021

Telah setuju oleh

Pembimbing 1 : Prof. Dr. Ir. Budi Widianarko M.Sc.

Pembimbing 2 : B. Danang Setianto S.H., LL.M., Ph.D

Penguji 1 : Prof. Dr. Andreas Lako S.E., M.Si.

Penguji 2 : Inneke Hantoro STP., M.Sc.

Penguji 3 : Hotmauli Sidabalok S.H., CN., M.Hum.

Penguji 4 : Prof. Dr. Ir. Budi Widianarko M.Sc.

Penguji 5 : B. Danang Setianto S.H., LL.M., Ph.D

Ketua Program Studi : P. Danardono S.H., M.Hum.

Dekan : Dr. Ir. Djoko Suwarno M.Si

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Student Number : 18.O1.0013

Study Program : Master Program on Environment and Urban Studies

Faculty : Environmental Engineering and Science

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FOREWORD

Plastic waste has been a global problem polluting marine and ocean ecosystem for which Indonesia contributes the second largest quantity after China. The multilayer plastic packaging is among the most difficult materials to collect, reuse, and recycle that finally leakage to the ocean. It has been called as residue out of the plastic waste. It cannot be easily replaced because producers put product safety as the higher priority, apart from material price considerations. Waste take-back option has been chosen as an immediate response of producers to deal with multilayer plastic packaging waste.

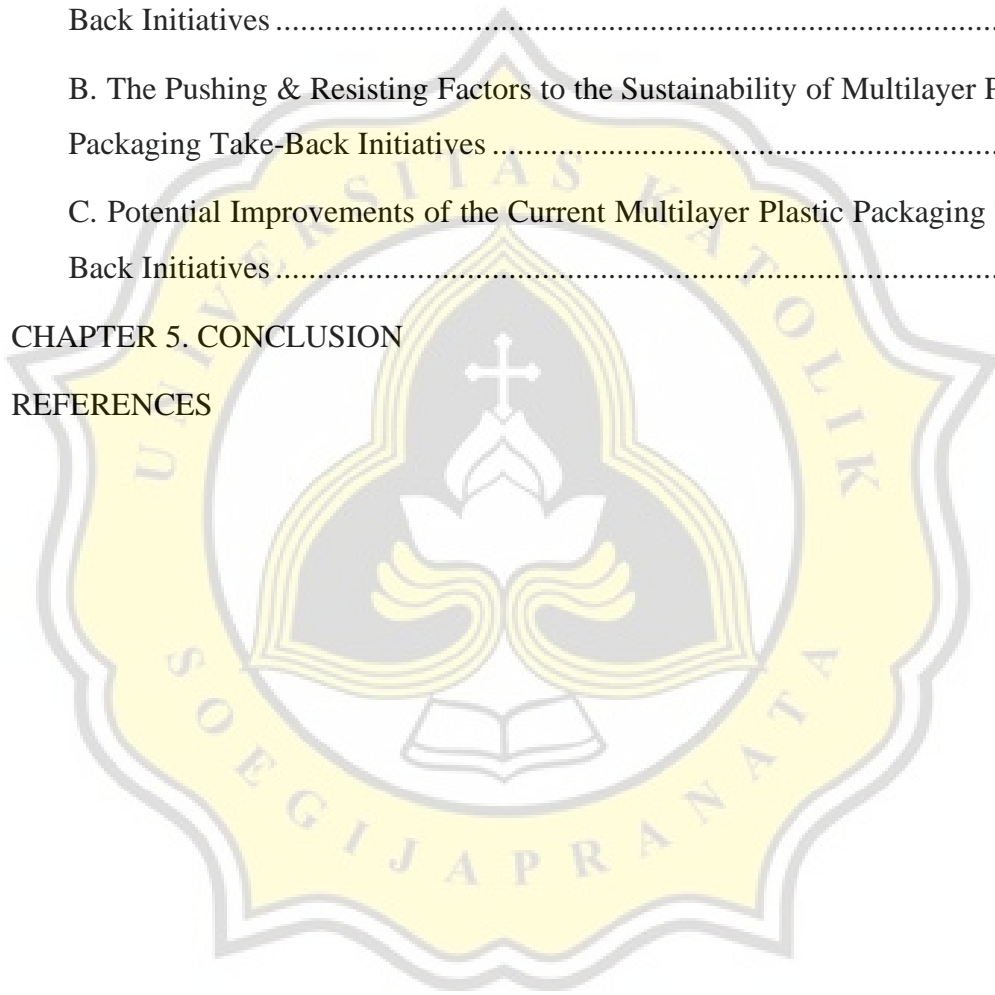
This research evaluated three initiatives of waste take-back mechanisms in Semarang. The objective of this study is to identify potential improvement based on the analysis of the strength and weakness of the existing initiatives. It has been completed within five months through interviews, observation, document reviews, and analysis in a qualitative manner. Finally, this thesis is submitted as one of the requirements for the writer in completing his study in the Urban Environment Master Program at Soegijapranata Catholic University.

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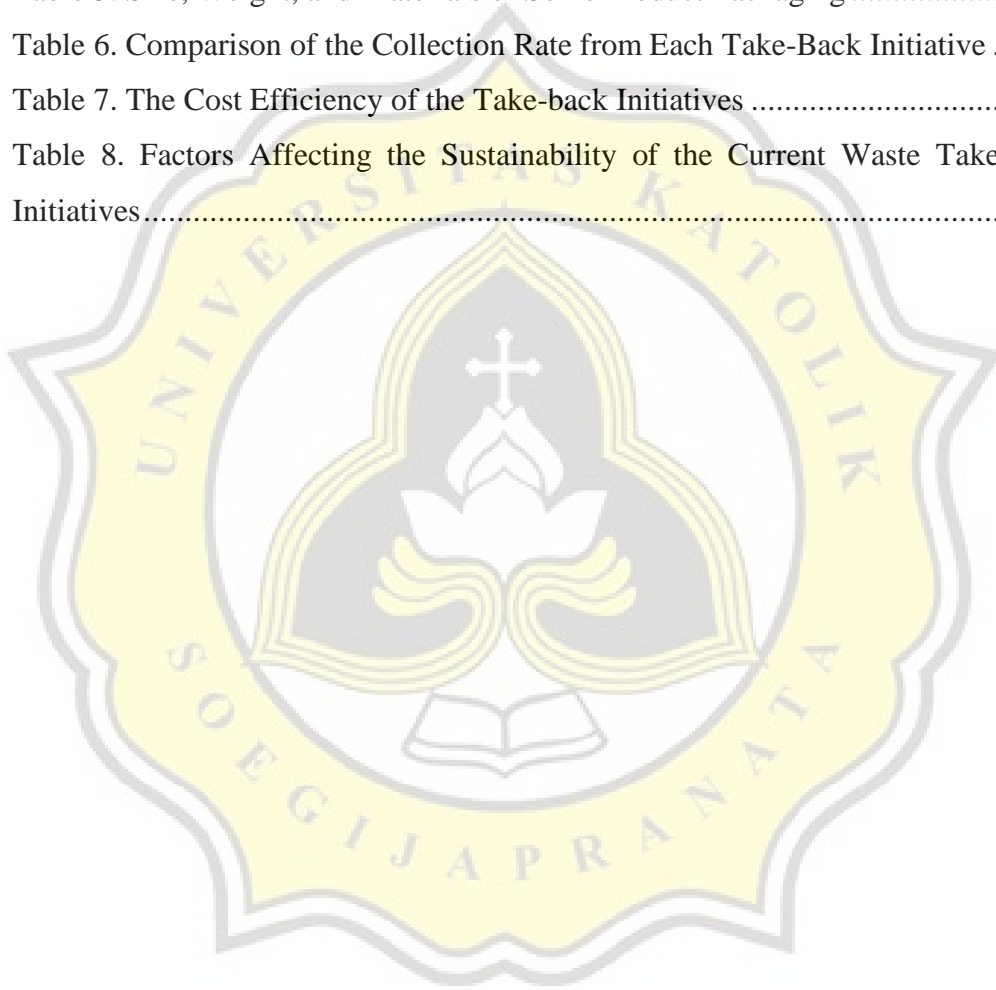


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ABSTRACT

Indonesia contributes the second largest marine plastic debris in the world after China. Apart from the poor land-based management, packaging that does not design for recycling since in the beginning influences the waste leakage. Multilayer plastic packaging is among the most difficult materials to recycle. The government is implementing the Extended Producer Responsibility (EPR) approach to promote a circular economy.

This research investigated the efforts to take-back multilayer plastic packaging waste of three producers in Semarang. Data is collected in the form of documents, archives, interviews, and observations. It is analyzed under a qualitative approach by using case study and qualitative influence diagram methods.

The results show that the effectiveness and efficiency of the take-back initiatives are still low. The sustainability of plastic packaging take-back is influenced by 18 resisting and nine pushing factors. The design and selection of material and producer responsibility commitment are very influential factors. Producers are advised to change designs and materials that are easier to recycle or to give higher compensation to participating actors to make it more circular and sustainable.

Keywords: *EPR, take-back mechanism, pushing and resisting factors, and potential improvement.*

Indonesia menyumbang sampah plastik laut terbesar kedua di dunia setelah China. Selain karena pengelolaan sampah di daratan yang buruk, kebocoran sampah juga akibat kemasan tidak didesain dari awal untuk didaur ulang. Kemasan plastik multilapis adalah salah satu bahan yang paling sulit dipulihkan. Pemerintah menerapkan pendekatan Perpanjangan Tanggung jawab Produsen (EPR) untuk mendorong ekonomi sirkuler.

Penelitian ini menyelidiki upaya pengambilan kembali sampah kemasan multilayer di Kota Semarang oleh tiga produsen. Data dikumpulkan dalam bentuk dokumen, arsip, hasil wawancara, dan observasi. Hasilnya dianalisa melalui pendekatan kualitatif dengan metode studi kasus dan diagram pengaruh kualitatif.

Hasil penelitian menunjukkan bahwa efektifitas dan efisiensi pengumpulan kembali kemasan plastik multilayer masih rendah. Keberlanjutan pengumpulan kembali sampah kemasan dipengaruhi oleh 18 faktor penghambat dan sembilan faktor pendorong. Desain dan pemilihan bahan kemasan dan komitmen tanggung jawab produsen menjadi faktor yang sangat berpengaruh. Produsen disarankan untuk merubah desain dan bahan yang lebih mudah didaur ulang atau memberi kompensasi lebih tinggi kepada pelaku yang terlibat agar inisiatif ini lebih sirkuler dan berkelanjutan.

Keywords: *EPR, mekanisme pengambilan kembali, faktor pendorong dan penghambat, dan potensi perbaikan.*