

Title	持続可能な衣類消費の要因特定による持続可能な衣類処分行為を促進するための手続き的方法提案
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論文題目	Proposing a Procedural Method for Promoting Sustainable Clothing Disposal Behavior through Identifying Factors for Sustainable Clothing Consumption		
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論文の内容の要旨

1. Research Content

Background

This study focuses on the sustainable clothing disposal behavior among Chinese consumers, addressing challenges to environmental sustainability. To enable effective clothing disposal behavioral change interventions, understanding consumers' current clothing consumption behavior and applying theoretical recommendations is crucial. However, there is a lack of studies proposing methods for promoting sustainable clothing disposal, identifying issues throughout the purchase, use, and disposal phases based on behavior categories, and introducing theory-based interventions.

Research objectives

The main research objective (*MRO*) of this thesis is to propose a procedural method that promote sustainable disposal behavior in China. Accordingly, this research comprises two sub-objectives: the first sub-objective (*SRO1*) aims to identify the clothing consumption issues that need to be addressed through examining the factors related to sustainable clothing consumption based on the categorization of Chinese consumers' behavior. The second sub-objective (*SRO2*) focuses on developing a method for promoting sustainable clothing disposal behavior among generation Y Chinese female consumers based on the identified categorization of behavioral issues.

Design/methodology/approach

To fulfill *SRO1*, *Study 1* presents the factors for the clothing consumption behavior categorization of Chinese consumers and identifies the environmental issues that need to be addressed in current clothing consumption behavior. A matrix approach was employed to categorize clothing consumption behavior, and the factors for clothing consumption behavior categorization were identified by conducting statistical tests to

compare variables related to clothing consumption behavior across the purchase, use and disposal phases. To achieve *SRO2*, *Study 2* initially explores barriers and facilitators of sustainable clothing disposal behavior through thematic analysis using the Capability, Opportunity, and Motivation (COM) components and Theoretical Domains Framework (TDF) domains, focusing on two of the issues identified in *Study 1* as a case study, followed by quantitative extraction of main barriers and facilitators. Subsequently, using the frameworks of Behavior Change Wheel (BCW), intervention functions, policy categories, behavior change techniques (BCTs), and modes of delivery are identified for each main barrier and facilitator.

Findings

Study 1 identifies factors influencing consumption behaviors, including gender, age, brand preference, annual expenditure on clothing, the number of new clothing items, purchase priorities, disposal reason, disposal channels, disposal quantity, repair experience this year, duration of use, price, and clothing type. Recommendations related to the issues need to be addressed are provided for each behavior category based on the identified influential factors.

Based on the disposal issues identified in *Study 1*, *Study 2* designs a method aimed at promoting sustainable clothing disposal among female consumers of Generation Y. This process initially identifies main barriers and facilitators regarding disposal of unused clothing and the usage of online clothing recycling platforms using COM and TDF. Consequently, step-by-step delineations of intervention functions, policy categories, BCTs, and modes of delivery are systematically outlined for each factor.

2. Research Significance

This research creates new values by integrating knowledge from diverse fields, including sustainability, clothing consumption, and behavior change, thereby facilitating problem-solving and informed decision-making within society. It provides several significant academic contributions. It categorizes consumers' behavior to identify factors related to sustainable clothing consumption throughout the entire consumption phases, including purchase, use, and disposal. It expands the application of theoretical frameworks and methods in several ways: Firstly, the mixed inductive-deductive approach in thematic analysis enhances understanding of the various factors influencing sustainable clothing disposal behaviors. Secondly, the application of statistical analysis aids in the identification of main barrier and facilitator factors related to behavior issues. Thirdly, TDF domain refinement provides a nuanced understanding of contextual forces shaping clothing disposal behavior. Lastly, simplification of intervention and implementation options enhances the identification of effective behavior change strategies.

Study 1 provides a comprehensive understanding of clothing consumption, including variations in different phases of clothing consumption, within the context of environmental sustainability. The findings

also provide a foundation for developing interventions to promote behavioral change. The insights provide valuable insights for policymakers, educators, stakeholders in the clothing industry, and consumers. *Study 2* develops a comprehensive method for promoting sustainable clothing disposal based on the specific clothing disposal issues observed among Chinese female consumers from Generation Y. The study effectively incorporates the guidance of the BCW-related frameworks to effectively address these issues. The step-by-step options outlined in this case study serve as an exemplary model for conducting research on behavior change interventions related to clothing consumption and are relevant to policymakers and stakeholders involved in the sustainable clothing disposal field.

Keywords sustainable clothing consumption; categorization of behavior; factors for sustainable clothing consumption; barriers; facilitators; intervention functions, policy categories, BCTs, mode of delivery

論文審査の結果の要旨

Promoting sustainable consumption is crucial for environmental sustainability. Her research proposes a procedural method for promoting sustainable clothing disposal, identifying issues throughout the purchase, use, and disposal phases based on behavior categories, and introducing theory-based interventions and implementation.

She conducted empirical research to categorize clothing consumption behavior using 2x2 matrix approach, then, identified the main barriers and facilitators regarding disposal of unused clothing and the usage of online clothing recycling platforms using Capability, Opportunity, and Motivation components and Theoretical Domains Framework. Consequently, step-by-step delineations of Behavior Change Wheel framework: intervention functions, policy categories, behavior change techniques, and modes of delivery are systematically outlined for each factor.

This research creates new values by integrating knowledge from diverse fields, including sustainability, clothing consumption, and behavioral change.

This is an excellent dissertation, and we approve awarding a doctoral degree to Ms. GUO, Wenjun in December 2023. All the committee members approved it on her final defense which was held on November 1st, 2023.