ANALYSIS OF HOUSEHOLD'S BEHAVIOR AND PREFERENCE TOWARD SUSTAINABLE MUNICIPAL ORGANIC WASTE MANAGEMENT IN HOI AN, VIETNAM

レィ，ティ，タン，ロアン

レィ ティ タン ロアン
氏　　名　　：Le Thi Thanh Loan

論文題名　　：ANALYSIS OF HOUSEHOLD'S BEHAVIOR AND PREFERENCE TOWARD SUSTAINABLE MUNICIPAL ORGANIC WASTE MANAGEMENT IN HOI AN, VIETNAM
（ベトナム・ホイアン市における有機姓廃棄物の持続的管理に向けた住民の行動と選好に関する研究）

区　　分　　：甲

論　文　内　容　の　要　旨

Huge amount of municipal solid waste (MSW) generated daily is considered as one of the most serious issues in developing countries. As the largest share of MSW proportion, municipal organic waste (MOW) which contains a rich organic matters and nutrients can be sustainably managed in handling resources demands for agriculture and moving toward to protect environment and public health. However, the success of MOW management strategy strongly relies on public participation, and the cooperation of households is critical because of the high volume of MOW generated by this sector. Therefore, this study aims to investigate household's behavior and preference toward sustainable MOW management by using the case study in Hoi An city, Vietnam. Four distinct methods namely structural equation modeling (SEM), choice experiment (CE), logit and ordered logit models have been adopted to undertake this investigation.

Firstly, sorting out of MOW at the household level has been considered as the fundamental condition for sustainable MOW management. The results from SEM indicate that the key psychological factors such as moral norm, attitude, and situational factors are the driving forces behind household' behavior toward sorting MOW at home. Moreover, the study finds that the factor namely system trust is, indeed, an important component for the program to be successful. Secondly, CE method is applied to design a waste collection system which includes new waste charging method, collection frequency, collection time, and guide for MOW management to divert effectively MOW from the landfill. The results indicate the sign of heterogeneity among respondents toward the proposed system attributes. Thirdly, in order to promote more of recycling MOW, the residents in rural areas of Hoi An have been encouraged to recycle MOW at home. It is reported that 64% of rural samples doing MOW recycling and the results from logit model show the need for enhancing the role of women unions, gardening clubs, composting training class, and paying attention to communal collectors' roles to support recycling. Finally, among the MOW recycling methods at household level, home composting (HC) is highly recommended due to generating products with intrinsic value by improving soil structure and fertility. The present study develops, for the first time, two HC behavior models, which include households' decision to participate in a HC scheme (logit model) and the level of HC participation (ordered logit model). Results show that training program affects HC acceptance but not the level of HC practice. In contrast, pro-environmental behavior enhances the levels of HC practice. These findings could help policy makers in designing and implementing efficient strategies to enhance a sustainable MOW management.