

## Willingness to Pay for Improvements of MSW Disposal: Views from Online Survey

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**Abstract :** Rising amount of MSW every day, maximizing material diversions from landfills via recycling is a prefer method to land dumping. Characteristic of Thai MSW is classified as 40 -60 per cent compostable wastes while potentially recyclable materials in waste streams are composed of plastics, papers, glasses, and metals. However, rate of material recovery from MSW, excluding composting or biogas generation, in Thailand is still low. Thailand's recycling rate in 2010 was only 20.5 per cent. Central government as well as local governments in Thailand have tried to curb this problem by charging some of MSW management fees at the users. However, the fee is often too low to promote MSW minimization. The objective of this paper is to identify levels of willingness-to-pay (WTP) for MSW recycling in different social structures with expected outcome of sustainable MSW managements for different town settlements to maximize MSW recycling pertaining to each town's potential. The method of eliciting WTP is a payment card. The questionnaire was deployed using online survey during December 2012. Responses were categorized into respondents living in Bangkok, living in other municipality areas, or outside municipality area. The responses were analysed using descriptive statistics, and multiple linear regression analysis to identify relationships and factors that could influence high or low WTP. During the survey period, there were 168 filled questionnaires from total 689 visits. However, only 96 questionnaires could be usable. Among respondents in the usable questionnaires, 36 respondents lived in within the boundary of Bangkok Metropolitan Administration while 45 respondents lived in the chartered areas that were classified as other municipality but not in BMA. Most of respondents were well-off as 75 respondents reported positive monthly cash flow (77.32%), 15 respondents reported neutral monthly cash flow (15.46%) while 7 respondent reported negative monthly cash flow (7.22%). For WTP data including WTP of 0 baht with valid responses, ranking from the highest means of WTP to the lowest WTP of respondents by geographical locations for good MSW management were Bangkok (196 baht/month), municipalities (154 baht/month), and non-urbanized towns (111 baht/month). In-depth analysis was conducted to analyse whether there are additional room for further increase of MSW management fees from the current payment that each correspondent is currently paying. The result from multiple-regression analysis suggested that the following factors could impacts the increase or decrease of WTP: incomes, age, and gender. Overall, the outcome of this study suggests that survey respondents are likely to support improvement of MSW treatments that are not solely relying on landfilling technique. Recommendations for further studies are to obtain larger sample sizes in order to improve statistical powers and to provide better accuracy of WTP study.

**Keywords :** MSW, willingness to pay, payment card, waste separation

**Conference Title :** ICWMT 2015 : International Conference on Waste Management and Technology

**Conference Location :** San Francisco, United States

**Conference Dates :** June 07-08, 2015