

THE COMPARISON OF WASTE SORTING BEHAVIOR AND NOT WASTE-SORTING BEHAVIOR IN EUROPEAN UNION AND ITS DETERMINING FACTORS, INCLUDING THE CULTURAL FACTORS

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Abstract

Waste generation is still an uncontrolled and increasing problem. Generation of waste increase with population expansion, the growth of production and consumption, the high demand for new products, and improved living standards. On the global level, waste has increased ten-fold over the past century and is expected to double by 2025 (Zelenika et al., 2018). Recycling is a plausible path and is one of the most effective methods used to reduce wastes and the promotion of recycling can to find a solution of the issues of limited landfill space, environmental pollution, reducing the waste, and natural resource depletion (Zhang et al., 2017). However, the inclusion of individuals and the increase of participation rates in the recycling process is a serious challenge in waste management still.

Purpose - to compare the behavior of waste sorters and not waste-sorting in European Union and its determining factors including the cultural factors.

Design/methodology/approach. The comparison analysis between characteristics of respondents who not waste-sorting behavior and waste sorting behavior in the EU analyzed the survey “Attitudes of Europeans towards waste management and resource efficiency” which was conducted by Eurobarometer. The detailed interview methods and confidence intervals are presented in a report by the European Commission (EC, 2014). The not waste-sorting behavior were estimated by answering the question: “Do you sort the following types of waste?” “I don’t sort any waste”. The residual segment of respondents was attributed to sorting behavior respondents. In this study analyzed the

not waste-sorting behavior and reduce and reuse behavior. Reduce behavior was estimated referring to answers about whether they performed at least one reducing behavior (e.g., I get broken appliances repaired before buying new ones). When analysing the behavior of reuse, we used the answer to the question, for example: "I bought none of these mentioned products second-hand" and so on. Applying the chi-square test, the differences between sorters' and not waste-sorting behavior reducing and reusing behavior were analyzed. To assess the influence of cultural dimensions on not waste-sorting behavior, six cultural dimensions of Hofstede's (2011) were used and the relationship between the values of cultural dimensions and non-sorting behavior was rated applied the Spearman correlation coefficient. To assess the influence of the tools which convince to separate waste (e.g. more and better waste recycling and composting facilities in one's area) on to compare the level of use of these tools between sorter and non-sorter respondents across all EU countries, considering panel data, a t-test was used.

Finding. From six cultural dimensions, only power distance, uncertainty avoidance and indulgence had significant effects on not waste-sorting behavior. The respondents of not waste-sorting behavior were at a lower economic level compared to respondents of waste sorter (except the purchase of second-hand goods) linked to performing reduce and reuse behavior. The effective of different tools which convince to separating waste differed between respondent of sorters and not waste-sorting behavior as well: to the respondents who sorting waste is important the trust level of waste management, while respondents of not waste-sorting behavior the convenience level is important. Analysing the knowledge about waste efficiency on sorting behavior, we found that only attitudes about resource efficiency significantly differed between sorter and not waste-sorting behavior respondents. Meanwhile, the knowledge level that too much waste is generate and I generate too much waste insignificantly differed between this group.

Research limitations/implications. This work was based on a Eurobarometer survey carried out five years ago. Progress has been made over this period in developing waste sorting infrastructure and increasing public environmental education. Thus, the data presented in this work could do not accurately reflect today's situation in the EU. Likewise, there is a likely that the answers of respondents were false.

Practical implications. This study has significant implications for waste policy in purpose by which to promote more sorting behavior in EU countries. This study was found that the not waste-sorting behavior significance depended on the level of economic development (in the riches country more individuals were linked to sorting waste). The enhancement of responsibility is the most important factor in seeking waste reduction for the whole of Europe. The same tools make differently effect for sorting behavior and non-sorting behavior. The least preferred tools which could convince one to separate waste were increased tariffs if the waste was not separated correctly and more information about where and how to separate waste. So, to promote sorting behavior, it is not enough to inform people that we have a lot of waste. Referring to Hofstede's six cultural dimensions, only power distance and uncertainty avoidance positively and significantly influenced the level of not waste-sorting behavior. Meanwhile, the level of indulgence had

a significant and negative effect on non-sorting behavior. So, to trigger sorting behavior, is not enough to enhance the responsibility level of environmental issues and to highlight that the sorting behavior are fashionable, but also to consider the circumstances and cultural dimensions of separate EU countries is necessary.

Originality/Value. In this study analyzed the respondent characteristics of not waste-sorting behavior and we performed the comparison analysis of waste reduction and reuse behavior and tools which can promote waste sorting between waste sorting and not waste-sorting behavior respondents in the all EU. This study is original because to the best of our knowledge, in the literature, this topic has not yet been analyzed. Also, of our knowledge, there is no research analysing waste separation encompassing all EU members. The researchers rather extensively analyzed how cultural dimensions influenced the purchase and consumption of green products (Ritter et al., 2015), meanwhile, to the best of our knowledge, there is a lack of studies where cultural aspects are included in exploring sorting behavior. Therefore, this study will fill this gap and enrich the cross-cultural analysis of environmentally friendly behavior. Up to now, the greatest attention was paid to the economic incentives, convenience factors, and information or knowledge. However, in these studies, the respondents who did not sort waste at all were not considered. In this paper, we analyzed and compared the preferences of these tools between waste sorting and not waste-sorting behavior respondents and that's it helped to identify the most preferable tools which could contribute to trigger promotion of more sorting behavior in EU countries. So, this study should contribute to understanding what factors drive not waste-sorting behavior, and how to promote sorting behavior including cross-cultural analysis.

Keywords: waste management; European Union; cross-cultural analysis; environmental knowledge; sorting behaviour; economic development.

Research type: research paper.

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