



10th International Conference Interdisciplinarity in Engineering, INTER-ENG 2016

Raising Awareness on Waste Generation and Collection

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Abstract

The purpose of this paper is to analyze the population perception regarding the waste generation and the recycling ways in order to reduce the amount of generated waste (especially organic ones).

Unfortunately, the reducing or minimizing of the amount of generated waste represents an issue to which, unfortunately, it's not still given its rightful importance and that is why it is needed to understand the factors and the procedures involved in this process.

The study's objective is to understand the concept and behavior of the population about sustainable waste management.

The study was conducted in two phases: development and implementation of a questionnaire with objective questions, the questionnaire was used to opinion poll for two groups of respondents. Collection and interpretation of data was performed by graphical and statistical methods.

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Peer-review under responsibility of the organizing committee of INTER-ENG 2016

Keywords: Environmental education; waste minimization; recycling; questionnaire; data gathering.

1. Introduction

At the global level there were important debates in the past decade about "waste crisis" because of the huge quantities of waste that have reached a critical level, having as main sources for industry, trade and agriculture.

Recycling of waste has become a serious problem for "life" on Earth, especially after the industrial explosion of the twentieth century, which led to the industrial and agricultural development, to the diversification of consumption for goods and food that were directly proportional with the increase of waste.

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Cherubini et al. (2008) pointed that ecosystems recycle all types of waste so that they are self-organized systems where all the resources are used with maximum efficiency [20]. But the human activities disturb the auto recycling processes that take place at the ecosystems level and it is normal that this role to be assumed by the waste generators themselves. Under EU rules, the recycling process consists in: recycling materials and reusing the energy.

Recycling material involves the replacement of primary resources with waste materials. It is aimed that recycling materials includes biological recycling with compost (aerobic process) and fermentation (anaerobic process) [2, 4, 22].

The recycling of organic waste is an economic solution, used mostly in agriculture due to the nutrients contained in the soil being able to degrade most of these substances [5, 7]. The management municipal solid waste (MSW) is an ongoing problem in all-local governments. Landfill Directive (EU 1999) sets out clear objectives to limit the generation of biodegradable municipal waste (BMW) [17]. Over the last few decades, various psychologists and sociologists have concentrated their efforts to explore the factors influencing favorable action on the environment in order to improve environmental education and communication [9, 10].

2. Theoretical background

In order to implement a sustainable system of waste management is also required to inform the population about the issues of waste management, the role of organic waste storage platforms, the need for consistent deposits and adverse effects of a nonconforming waste storage.

For proper management of waste generated in urban and rural areas it is absolutely necessary to consider public education; its behavior towards a problem so acute. There are authors who claimed that, most likely, the population behavior may be driven by a concern about environmental issues and suggested that a waste minimization behavior should be separately considered by behavior reuse. [1].

Tonglet et al. states that the effectiveness of preventing and minimizing waste (involving prevention and minimization at source) is closely linked to pro-environmental behavior of the population [1, 3, 6, and 15]. Using Theory of Planned Behavior, authors show the role of understanding the human behavior in developing projects aimed at preventing and minimizing waste (Fig. 1).

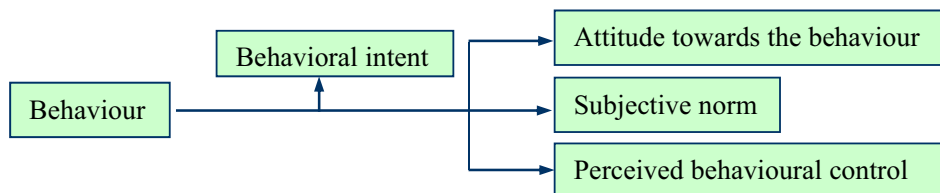


Fig.1. The Theory of Planned Behavior adapted from Ajzen (1991) [11]

The Theory of Planned Behavior (TCP) developed by Ajzen and Fishbein 1980 is framed among the first theories which, to explain the link between attitudes and behavior, it stresses the importance of mediators and moderators of its factors [12].

The theory states that the individual performance of a particular behavior – The Theory of Planned Behavior – it was applied and proved to be useful for different disciplines (from healthcare, information technology, sociology, social policies, health psychology, etc.). [1].

The Theory of Planned Behavior speaks in his "Theories and models of acceptance of new technologies" [18], where the authors suggest the model of responsible behavior towards the environment (CRMI).

This model introduces more variables that are closely related to responsible behavior towards the environment: knowledge of the issues, knowledge of the mode of action, strategies, attitudes, control strategy and personal responsibility.

In addition, it was added a third cognitive component: the powers that are necessary to apply the strategies of action to treat the problem, ensuring their individual capacity to act [13, 18].

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