Environmental Engineering and Management Journal

March 2016, Vol.15, No. 3, 589-598 http://omicron.ch.tuiasi.ro/EEMJ/



"Gheorghe Asachi" Technical University of Iasi, Romania



## DRIVING FORCES AFFECTING THE ADOPTION OF ECO-INNOVATION: A SURVEY ON VACUUM SEWER SYSTEMS

## Iulia C. Terryn, Gabriel Lazar\*

"Vasile Alecsandri" University of Bacau, Calea Marasesti 157, 600115, Bacau, Romania

## Abstract

The article studies the adoption of eco-innovation using the diffusion dynamic as a paradigm for investigating the environmental reform in providing public goods. The study focused on the wastewater collection systems and analyzed how the structure of the market, socio-cultural conditions, geographic proximity and the Gross Domestic Product level measured the acceptance or rejection of eco-innovation. The authors investigated the data in order to test three hypotheses, respectively, the influence of the period of adoption, general country economic performance, and neighborhood conditions in eco-innovation adoption. The hypotheses were tested using statistical and geostatistical techniques. The study concluded that the adoption rate slows as the saturation level is approached and early adopting countries have a broader uptake of the innovation than do latecomers, even though the latecomers enjoy the benefits of leapfroggers. In addition, the study found that geographic proximity influenced who was an early adopter and who was a laggard. The results illustrated that the general economic performance of a state does not directly influence eco-innovation adoption.

Key words: eco-innovation, innovation diffusion, nonparametric test, vacuum sewer system

Received: August, 2015; Revised final: February, 2016; Accepted: February, 2016

<sup>\*</sup> Author to whom all correspondence should be addressed: e-mail: glazar@ub.ro; Phone: + 40234542411