

ASSESSING THE MOTIVES FOR FIRMS TO ADOPT SOLID WASTE CONTROLS:
CASE OF FRUIT AND VEGETABLE PROCESSING SECTOR IN SRI LANKA

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The purpose of this study is to examine empirically the economic incentives for fruits and vegetables processing firms in the Western Province of Sri Lanka to act on Environmental Management Controls (EMSs) with special reference to adoption of solid waste management techniques in the firms, and the impact of firms' characteristics on this behaviour. This particular study covers the first phase of a two-stage comprehensive study. In the first stage, data were collected from 24 firms with respect to environmental quality.

An empirical model is specified to explain the relationship between different types of solid waste management controls adopted by firms (dependent variable) and nine market-based regulatory and liability incentives (explanatory variables). These controls include: establishment of a 3R system, composting and sanitary land filling sites, and biogas units; use of biodegradable packaging materials; conduct of waste auditing; adoption of a set of GMP, and/or ISO 14000 certification. The Confirmatory Factor Analysis (CFA) technique was used specifically to develop estimable explanatory variables to represent nine individual incentives. The data were analyzed using both descriptive and inferential statistical methods, including Binary Logistic Regression.

The results show that these firms have adopted at least one method of the EMSs. The derived Scale Values through CFA, indicate that individual incentives of cost,

anticipating government regulations, reputation, technical efficiency, sales and revenue show the greatest impact, while human resource efficiency, commercial pressure, liability laws and existing government regulations show the lowest impact on firms' action towards adopting EMSs. Through the results obtained in this stage, it was verified that the measurement model used in the questionnaire can be improved further by revising the attitudinal statements.

Key words: Adoption, Economic incentives, Fruit and vegetable processing firms, Solid waste management controls