Willingness to Pay for "Fortified Compost": A Study on Vegetable Farming in Nuwara-Eliya District

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Urban waste mismanagement, soil fertility reduction in agricultural lands and the increasing world price of chemical fertilizer are the main problems that should be addressed immediately in the Sri Lankan context. A fortified compost consists of a mixture of municipal solid waste and faecal sludge which may help to reduce these problems to some extent. As this is a new product, distinguishing proof of purchaser inclinations is vital in outlining product with the most extreme buyer request to capture the market share. Thus, this investigation assessed buyers' expressed inclinations for fortified compost attributes through conjoint analysis. Ranked information was investigated utilizing Rank Ordered Logistic Regression (ROLOGIT) model. Also, ordinal psychometric measurement of attributes in fortified compost product was done through a five-point Likert scale. This survey focuses on vegetable farmers because the market for compost products is easy to implement in such a cluster. Through the multiple stage sampling method Nuwara-Eliya district was selected as it represents the highest number of vegetable farmers in the country. Face to face interviews was conducted among 300 randomly selected respondents representing all 5 DS divisions in the district. The results of ROLOGIT revealed that all four attributes (form of compost, distribution method, availability of faecal sludge and price per kg) have demonstrated a significant effect on choosing a compost product. For the form of compost; respondents were willing to pay an additional sum of LKR 4.18 if the product is in 'dust' form rather than in 'pellet' form. Also, 1.49 of marginal willingness to pay (MWTP) acquired for on-farm gate distribution strategy. Contrary to the expectation, farmers show a very high MWTP for the attribute 'presence of faecal sludge' with an additional amount of LKR 5.06. According to the Likert scale analysis close to 60.67 % of the respondents are willing to purchase the product in the next season. Hence, results of this study can be used to define a strategy regarding urban waste management with the combination of compost production.

Keywords: Conjoint analysis, Farmer preference, Fortified compost, Marginal willingness-to-pay

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