

## **Appropriate Payment Vehicles in Stated Preference studies in Emerging Economies.**

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### **Abstract:**

Consequentiality and incentive compatibility are key design features in evaluating people's preferences for environmental improvements which if implemented, is relevant for all respondents. In developing and emerging economies this is not a trivial task, as tax systems and other institutions are poorly developed or only concern a limited part of the respondent population. We demonstrate the importance of this by analyzing the performance of three different payment vehicles in a survey addressing wetland conservation in Malaysia. Two of these are well-known payment vehicle types; voluntary donations and income tax, whereas the third is new to the literature: Reduction in government subsidies for daily consumer goods. Donation has well-known issues as a payment vehicle, but is commonly used in research like this. Income tax usually has favorable properties, and often used too, but in Malaysia many people do not pay income tax, putting consequentiality and incentive compatibility into question. However, all Malaysians benefits from subsidies on many types of consumer goods. We hypothesize that two effects may arise across payment vehicles not equally incentive compatible for (some) respondents. First, we expect the estimated population mean cost parameter to be smaller for payment vehicles that are not incentive compatible for (some) respondents, compared to payment vehicles that are incentive compatible and of consequence for all. Secondly, unobserved variance (scale) may be larger in surveys, where the payment vehicle is irrelevant for (some) respondents, causing them to pay less attention to choices, to not consider their true preferences and hence increase unobserved variance. We evaluate these hypotheses and find the estimated mean marginal cost parameter for income tax and donation vehicles are significantly different from the marginal cost parameter in the case of the subsidy based payment vehicle. The effect of these donation and tax payment vehicles is a smaller marginal cost parameter compared to the subsidy payment vehicle, which is consequential and incentive compatible for all. We also found that the scale parameter for donation and income tax payment are relatively lower than for the subsidy payment vehicle, which leads to larger unobserved variance. Our results suggest that in developing countries and emerging economies, the use of payment vehicles like reduced subsidies can improve perceived consequentiality and incentive compatibility, and hence external validity, of stated preference surveys.

**Keywords:** Consequentiality, choice experiment, income tax, donation, subsidy reductions, wetland conservation, Malaysia.