



Tropentag, September 18-21, 2016, Vienna, Austria

“Solidarity in a competing world —
fair use of resources”

Marginal Willingness to Pay for Indirect Procurement Programme Attributes

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Abstract

Since the world food crisis of 2008–09, West-African countries have re-launched procurement programs and rebuilt food stocks. State interventions on markets are known to lead to distortions. But the food crisis has revealed free economy limits to provide food for all citizens and to handle shocks. Then, states and free economy cooperation is advocated to overcome these challenges. Indirect procurement policy is implemented in Benin, under a Public-Private Partnership (PPPs) agreement. The study proposes designs to improve PPPs agreement to strength its actors' loyalty. Data were collected on three agricultural markets in northern Benin for a total of 210 respondents in the Discrete Choice Experiment (DCE). Hypothetical policies have some attributes already existing (price information, prices, payment delay); but improvements are introduced in their levels. Two new were added: “supply chain” attribute, referring to the number of links and type of traders involved in the partnership. It has three levels: link1 (L1) for assemblers, only; link2 (L2) for assemblers + small-whole sellers; and link3 (L3) for assemblers + small-whole sellers + whole sellers. The second attribute is “transport” offered by the program. Six attributes were used: 1 of 3 levels, 2 of 2 levels and 2 of 4 levels. The full-factorial design ($31 \times 22 \times 42$) gives 192 profiles, reduced to 16 profiles, using main effects orthogonal design. Choice cards present two alternatives (Pa and Pb) and “free market”, which captures respondents not interested to participate. Mixlogit model estimates were used to evaluate willingness to pay for change in attributes levels. Note that, traders are paid for maize delivered. If not interested, they request higher price as compensation. Otherwise, they are willing to accept lower price. Regarding supply chain, traders will require 0.42 FCFA kg⁻¹ and 3.15 FCFA kg⁻¹ more to join PPPs for supply chains “L1” and “L2”, respectively. But they accept 5.25 FCFA kg⁻¹ less for “L3”. They accept lower prices for price information (-2.68 FCFA kg⁻¹ and transport means (-1.97 FCFA kg⁻¹). For longer payment delay, traders will require 1.47 FCFA kg⁻¹ more. Considering “free market”, traders will require 39.41 FCFA kg⁻¹ more to quitt or not to join the agreement.

Keywords: Discrete choice experiment, indirect procurement programme, marginal willingness to pay