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How Would Ethiopian Farmers Like to Access Hybrid Maize Seeds? Evidence from a Choice Experiment on the Attributes of Seed Distribution Systems

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Abstract

Ensuring access to high-quality seeds for smallholder farmers has remained a challenge in many African countries. In Ethiopia, the maize seed system has, until recently, been highly centralised and controlled by state-sponsored cooperatives. This was, in particular, the case for the marketing and distribution of hybrid maize seeds. Inefficiencies in this state-controlled system have been identified as one of the main reasons for the lack of growth and productivity in Ethiopia's maize sector. However, important changes in the seed distribution policy introduced in 2013 have ended the monopoly of cooperatives and made direct seed marketing by both public and private enterprises possible. As farmers can now choose between different seed providers, the question arises as to how they prefer to access hybrid maize seeds. Which attributes of seed distribution systems do they prefer most? These research questions are addressed in the proposed paper. A choice experiment focusing on seed purity, quantity, group formation, sales outlet number, credit and price attributes was conducted with 325 randomly selected maize farmers located in the two maize belt areas of Oromia and Amhara regions. A Latent Class Model (LCM) identified three classes of farmers. LCM estimation demonstrates a significant heterogeneity of preferences to the distribution attributes within classes and between study areas. Diversity of actors engaged in seed distribution, asymmetry in implementing the new distribution system in the two areas, access to irrigation, age, family size and distance to seed collection points are factors that account for heterogeneity of preferences between and within study areas. In spite of the uniformity of the prescribed approaches to resolve the challenges of seed distribution, farmers preferences to distribution attributes are quite different, implying that 'one size doesn't fit all'. Furthermore, the results underline the role of contextual factors for choice of the distribution attributes, and the cost of ignoring them. The study, therefore, suggests that policy makers should carefully consider sources of preferences heterogeneity in relation to distribution attributes. It is important to re-orient the seed distribution approaches to suit the local contexts as well as the identified preference differentials before scaling up to the country level.

Keywords: Choice experiment, Ethiopia, hybrid maize seed distribution, latent class model, maize farmers, preferences, socioeconomic contexts

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