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The effect of dairy cooperative membership on farmers' choice of milk marketing channels: evidence from milk producers in Rwanda

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Abstract

The contribution of milk production to food security, nutrition and farmers' welfare has been documented worldwide. However, smallholder milk producers face different constraints such as high transaction costs that hinder them from getting the opportunities offered by various marketing channels. Although cooperatives play a critical role in reducing transaction costs and enhancing farmers' adoption of better farming practices, little is known on the effect of dairy cooperative membership on the choice of milk marketing channels. This paper employs an endogenous switching probit model to estimate the determinants of farmers' choice of milk marketing channels while controlling for the potential selection bias of cooperative membership. We find that cooperative membership has a negative effect on the choice of milk traders as marketing channels, along with a positive effect on the choice of both milk collection centres and other buyers. These varying effects of cooperative membership also hold for non-members had they been cooperative members. Furthermore, we find that the selling price positively affects farmers' choice of milk collection centres, but the longer distance to milk collection centres may influence farmers' choice of nearby other buyers who offer slightly lower prices. Since the milk collection centres offer higher prices to farmers and are the only marketing channels that conduct basic milk quality tests, we recommend policies that support easy access of milk collection centres and enhance dairy cooperatives' governance. This will facilitate dairy farmers' access to a better marketing channel while meeting an already growing consumer demand for products safety and quality in the food industry.

Keywords: Cooperative membership, endogenous switching probit model, marketing channel, Rwanda.

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