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## Understanding Indonesian Smallholder Dairy Farmers' Decision to Adopt Multiple Farm: Level Innovations

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**Abstract :** Adoption of farm innovations may increase farm productivity, and therefore improve market access and farm incomes. However, most studies that look at the level and drivers of innovation adoption only focus on a specific type of innovation. Farmers may consider multiple innovation options, and constraints such as budget, environment, scarcity of labour supply, and the cost of learning. There have been some studies proposing different methods to combine a broad variety of innovations into a single measurable index. However, little has been done to compare these methods and assess whether they provide similar information about farmer segmentation by their 'innovativeness'. Using data from a recent survey of 220 dairy farm households in West Java, Indonesia, this study compares and considers different methods of deriving an innovation index, including expert-weighted innovation index; an index derived from the total number of adopted technologies; and an index of the extent of adoption of innovation taking into account both adoption and disadoption of multiple innovations. Second, it examines the distribution of different farming systems taking into account their innovativeness and farm characteristics. Results from this study will inform policy makers and stakeholders in the dairy industry on how to better design, target and deliver programs to improve and encourage farm innovation, and therefore improve farm productivity and the performance of the dairy industry in Indonesia.

Keywords: adoption, dairy, household survey, innovation index, Indonesia, multiple innovations dairy, West Java

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