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# Analysing the Adoption of Drones in Agriculture at Khargone District

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**Abstract:** *The purpose of this paper is to analyse the adoption of drones in agriculture as the newest tool added to the set of precision agriculture technologies using a new application of the trans-theoretical model of behavioural change by analysing a sample of 167 large-scale German farmers collected in 2019. This model gives a gradual measure of farmers' decision making regarding the adoption of drones, giving more detailed insight into the farmers' adoption processes than the more common approach of applied binary classifications. Results of ordinal logit regression indicate that, among other determinants, age, precision agriculture technology literacy and farm size of farmers determine the farmers' adoption process. Therefore, this paper contributes to literature by identifying key determinants of the drone adoption process in agriculture. Additionally, this research furnished information about the areas of application of drones as well as reasons opposing the usage of drones by farmers. Results: Of interest to the policy makers and suppliers of drones.*

**Keywords:** Fertilizer and Pesticide Spraying System, Unmanned Aerial Vehicle (UAV), Time and Cost Saving