## A systematic review of farmers' acceptance of robotics and unmanned aerial vehicles

A systematic review

A systematic review was conducted to gain insight into the factors affecting farmers' adoption or intention to adopt agricultural robots or unmanned aerial vehicles (UAVs). A total of 23 studies were selected from two databases, namely Web of Science and Scopus. Data related to methods and results were extracted.

Main findings

The current use of agricultural robots and UAVs is still limited. However, this review showed the potential of these technologies since farmers generally have a positive attitude towards robots and UAVs. Most studies used quantitative research methods; however, only a limited number of studies used an established adoption model. The most important determinants for adoption were identified, namely age, gender, income, education, farm size, perceived usefulness, expected benefits, attitude of confidence, perceived ease of use, price, compatibility with other machinery and labour scarcity.
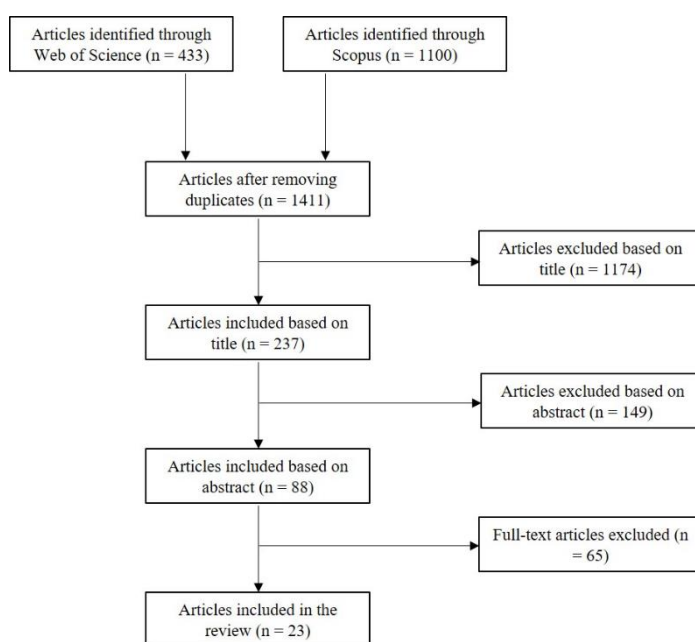
Article screening process

Practical implications

Insights into factors affecting the intention to adopt these technologies are beneficial for policy-makers, machinery industry and scientists. For example, improved education regarding agricultural robots and UAVs could potentially increase farmers' adoption. Specific customer segments could be identified based on information regarding socio-demographics and farm characteristics, which could be beneficial for marketing purposes. Furthermore, insights into the importance of certain factors (e.g., compatibility with other machinery) for end-users could help machinery developers.
More information can be found here: https://doi.org/10.1002/agj2.21427.

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Date: December 2023