



Taxonomy of key variables influencing Agricultural profitability for AI driven Influence

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Corresponding Author: ^{1}Rohit T. Paikrao, ²Dr. Suhas D. Pachpande, ³Dr. Parag U. Bhlachandra

¹Deptmernt of Computer Science and Engineering, SGBA University, Amravati,

rohit.srtmun@gmail.com

²Deptmernt of Computer Science and Engineering, SGBA University, Amravati,

suhaspachpande@sgbau.ac.in

³School of Computational Sciences, SRTM University, Nanded,

srtmun.parag@gmail.com

ABSTRACT

Agricultural profitability is a key indicator of sustainable agricultural development. Its complete understanding is essential for developing intelligent decision support systems that enable evidence based agricultural planning. This paper suggests the possible taxonomical analysis for AI-based approaches in defining agricultural profitability. Attempt has been made to systematically classify such determinants are into major categories. Particular attention is given to machine learning, feature-selection, dimensionality-reduction, and explainable AI techniques for identifying influential variables over complex agricultural datasets. The research findings provide a conceptual foundation for future research on AI-enabled agricultural decision-support systems, particularly in data-intensive and climate-vulnerable agricultural regions.

KEYWORDS: Agricultural Profitability, Machine Learning, Feature Selection, Explainable Artificial Intelligence, Decision Support Systems.