Smart Farming Adoption

Leonardo Hernán Talero Sarmiento[1], Diana Teresa Parra-Sánchez[1]

1 Universidad Autónoma de Bucaramanga

Potential competing interests: No potential competing interests to declare.

Smart Farming Adoption refers to the systematic design, development, and deployment of cost-effective, scalable, and user-friendly information and communication technologies, aimed at facilitating informed decision-making processes within the agricultural sector. This innovative approach transcends the boundaries of traditional farming systems, which are predominantly physical and social in nature, by integrating elements of cyber-physical-social systems. This transformation leverages the power of Internet of Things (IoT)-based solutions, leading to an interconnected and data-driven farming ecosystem. This cycle of Smart Farming Adoption is central to the concept of Precision Agriculture, which emphasizes the application of exact and controlled farming practices to enhance productivity, sustainability, and profitability.