



BioValue

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Practice Abstract

Enhancing Agricultural Value Chains through Agent-Based Modelling

Agent-Based Modeling (ABM) tools have the power to revolutionize agriculture. This approach provides valuable insights that can improve how farmers and end-users operate on a daily basis. ABM's influence on value chains can offer crucial recommendations for policy and market changes, leading to shifts in practices and development processes.

- **Data and Interaction:** ABM relies on data from various sources throughout the value chain. To make this work, it's important to standardize data formats and streamline interactions, possibly through ontologies.
- **Market-Centric Approach:** In BIOVALUE's framework, we consider both value chains and markets. Markets have a big impact on how agents behave. ABM incorporates demand-related factors to make market recommendations, which in turn influence the decisions of everyone in the value chain.
- **Practical Benefits Unleashed:** ABM's results empower stakeholders. It guides choices, determining the feasibility of new products and understanding how policies affect markets.
- **Entrepreneurial Edge:** This approach leads to cost-effectiveness, productivity, and informed choices, underlining practical relevance and profit potential.

Hence, ABM's value chain applications provide practitioners with a toolkit for modern agriculture since it bridges capability and real-world impact, boosting agriculture, profits, and sustainability.