

Reviews of ECONJOURNAL-D-25-00087R2

The impact of quasi-integrated agricultural organizations on farmers' production efficiency: Evidence from China

Round 1

Reviewer 1

1. Since authors are mentioning the "vertically integrated agricultural industry organizations" there are missing the following analytical parameters that authors could consider in their study, or at least to discuss, in the Discussion section of their study:

- Water management and irrigation needs, focusing on "the five major agricultural provinces of Jilin, Liaoning, Shandong, Henan, and Sichuan in China from 2015 to 2022".
- In financial terms, the role of microfinancing with competitively low interest rate loans from local banks or other funding institutions.
- Internationalization and extroversion of local agricultural production to other countries of importing these agricultural products.

2. The structure of main headings from section 3 onwards has to be retitled as: 3. Methodology and Analysis, 4. Results, 5. Discussion, 6. Conclusions Policy Implications and Future Works. All other-typed headings to be either renamed and fixed as above, or to be placed as subheadings.

3. At the beginning of section 3. Methodology and Analysis the following missing information to be added:

- A Figure 1: Study Framework in which the steps followed in developing the study to be graphically shown: diagram, flow chart, or keywords cloud, whatever most convenient to authors' expertise.
- A separate subsection "Areas Studied" in which a short description and introduction of the five agricultural provinces to be made, including: a map of the area, indicative agricultural crops/plantations cultivated, area covered (in km²), population domesticated (in thousands of people per province), land uses per area zone: agricultural, industrial, household, urban, as well as representative meteorological data: water precipitation, wind, temperature, or any other climatic-weather information available.

4. Special provision should be taken that extended non-cited text extracts of sections 4, 5, 6 (especially in section 6), to be checked and cross-cited, thus, enhancing the study validity and verification with other similar published studies.

5. Almost all citations are China-related one, but there should be a more pluralistic international theoretical coverage, thus, the following studies can be considered and cited in the revised manuscript: DOI: 10.17512/pjms.2024.29.1.20, DOI: 10.1007/s10668-022-02435-y, DOI: 10.3390/app13042216, DOI: 10.1016/B978-0-323-95280-4.00014-X. The critical point here is authors, based on the findings of their study, to demonstrate conclusions of generalized applicability and insightful remarks of broader scientific/research interest, nationally or globally.

Reviewer 2

It is necessary to define the term "quasi-integration" more deeply. Currently, the term is vaguely differentiated from "full" integration.

Introduce tabular or diagrammatic display: Non-integrated vs. quasi-integrated vs. fully integrated. It would be useful to compare the level of autonomy, type of support, management mechanisms.

It would be good to expand the literature review. It is recommended to include examples from Latin America, Africa, the EU (eg LEADER program, CAP), for a stronger international context.

Further clarify the instrumental variable - A stronger methodological justification is needed for the use of "contract farming" as an instrument. Is the instrument valid in all regions and for all types of crops?

Discuss work limitations. Suggestions: possible bias of self-reported data on costs and working hours, limited generalizability to other institutional contexts.

Linguistic and stylistic refinement - Proofreading in English is suggested.

Reviewer 3

Category:

Required Action

Conceptual clarity:

Clearly define quasi-integration; add comparative examples

Language:

Proofread the entire manuscript for grammar and fluency

Literature review:

Expand international coverage; avoid repetition

Econometric justification:

Strengthen the validity of IV; reconsider the proxy for efficiency

Mechanism analysis:

Refine or supplement labor-based mediators

Reviewer 4

The study constructs a two-stage empirical framework: (1) estimation of production efficiency using Stochastic Frontier Analysis (SFA), and (2) regression of efficiency scores on QIAIO participation using an endogenous switching regression (ESR) model. Why was SFA preferred over DEA for frontier estimation, and how sensitive are results to the specification?

QIAIOs are treated as treatment in the ESR model, but selection into QIAIO participation may involve unobserved farmer characteristics (e.g., entrepreneurial mindset). How is endogeneity addressed beyond ESR correction? Are instrumental variables valid and strong?

The paper mentions "inverse Mills ratio" correction in ESR but provides no diagnostic for instrument relevance (e.g., F-statistics). Which exclusion restrictions justify identification of the treatment and outcome equations?

The definition of "production efficiency" is based on technical efficiency only. Why not consider allocative or profit efficiency, especially when QIAIOs influence both input access and output pricing?

Covariates like education, land size, labor, and asset ownership are included, but no controls for risk preferences, prior training, or subsidies. Could these omitted variables bias the efficiency gap?

The dataset is derived from a single region (Hubei), raising external validity concerns. Could results generalize to Western or Northeastern provinces with different land tenure or crop structures?

The concept of "organizational quasi-integration" is not formally defined. Is it based on capital ties, contract obligations, or shared infrastructure? Could more typologies (e.g., farmer cooperatives, buyer-led clusters) clarify heterogeneity?

The use of cross-sectional data (one wave) limits causal inference. Is panel data unavailable? If so, could retrospective recall or instrumental timing (e.g., QIAIO entry year) be used to enhance identification?

The role of agricultural policy reforms or local government support (e.g., subsidies for joining QIAIOs) is unaddressed. How do public incentives interact with organizational participation?

Literature review focuses on cooperative theory and integration but misses recent empirical studies on agri-efficiency post-2020. Include more recent quantitative findings from Agricultural Economic Review or Food Policy? Also add these related works as references; DOI: 10.1142/S0129156425406357 , 10.3389/fsufs.2024.1368997 10.22105/riej.2025.459649.1450, 10.22105/masi.v2i2.65 , 10.22105/jarie.2024.448994.1600 , 10.31181/sa21202421 , 10.22105/jfea.2024.425542.1327 , 10.1007/s13132-023-01558-5, 10.48313/jqem.2024.210884, 10.22105/opt.v1i1.45, 10.5281/zenodo.3514433, 10.1002/aepp.13239, 10.1016/j.jclepro.2021.128830, 10.1017/age.2022.21, 10.1016/j.wasman.2021.09.014.

Technical terminology is inconsistently defined. Terms like "inefficiency effects

model," "regime 1," and "counterfactual analysis" are used without proper contextualization. Could clearer methodological explanations improve accessibility?

Writing quality is adequate but requires tightening—several repetitive phrases (e.g., "this paper shows that...") and long paragraphs reduce readability.

Consider improving flow, especially in Results and Discussion.

Policy recommendations are generally sound (e.g., promoting QIAIOs) but lack specificity. What practical policies could support adoption—tax incentives, training subsidies, or legal frameworks?

Conclusion reaffirms main findings but should better acknowledge limitations: sample scope, measurement constraints, potential endogeneity, and external validity.

Round 2

Reviewer 1

At this revised manuscript authors proceeded in a systematic and meticulous revision of their initial study, having the reviewers' comments considered and addressed, accordingly. In this context this revised manuscript can be accepted for publication at the Economics journal as is.

Reviewer 2

Comments to Author:

The authors have incorporated the suggested comments and revised the paper accordingly.

Editor

Please address the following minor issues to further improve readability and overall quality:

1. Please arrange for professional English editing, especially in the Introduction and Discussion sections, to avoid heavy and repetitive expressions and improve sentence flow.
2. The Policy Implications section is valuable, but it could be made more concise and practical. Please simplify wording and highlight key actionable points.
3. While other efficiency dimensions (allocative/profit efficiency) are mentioned only as limitations, adding a short paragraph in the Discussion to compare your findings with these dimensions would strengthen the contribution.
4. Some tables are very dense (e.g., heterogeneity results). Please improve captions and, if possible, simplify the presentation for better readability.

Round 3

Editor

The authors have carefully addressed the minor revisions requested in the previous round. The overall quality of the manuscript has improved and the manuscript can be accepted in the current form.