



The Role of Education on Subsistence Farmers' Crop Production

Govindan Basavaraj

Faculty of ECE Deptt., Punjab engg college, Punjab, India

Email: basavaraj72@pec.ac.in

Abstract

The impact of education on farmers' attitudes toward Subsistence Farmers' Crop Production (measured using an attitude survey instrument), that was estimated with data from India. The objectives were to determine the impacts of agricultural education on crop production; ascertain the influence of agricultural education on crop farmers' adoption of innovation and determine the factors that hinder agricultural education from making maximum effect on subsistence farmers in India. The study adopted a descriptive survey design. A simple random sampling technique was used to select sixty-two female farmers and forty (40) male farmers in India, resulting to a total sample size of one hundred and two (102) crop farmers. Data was collected using a well-structured questionnaire designed in Likert 5-point rating scale of agreement. Data was analyzed using mean standard deviation with acceptance means value of □ 3.00 while z-test was used to test the hypothesis at 0.05% level of significance. Findings from the study revealed that agricultural education enhances crop farmers' productivity, exposes farmers to agricultural technology, agricultural education increases local food availability among others. Also, creates awareness of improved crop varieties before they are adopted, provides adequate information concerning new innovation, adoption of innovation depends fully on the level of interaction between the change agents and the farmers amongst others. Lastly, the study found that, failure of first trials, lack of resources to obtain the new innovation, affixed with ancient method of farming and others are factors that hinder agricultural education from making maximum impact on crop farmers adoption in the study area. The study therefore recommends that government and NGOs should encourage agricultural education and its extension officers to carryout effective and adequate agricultural programme to develop farmers' decision making skills, regular extension visits should be extended to rural farmers and adequate awareness should be created to improve farmers' inputs.

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References

1. Aigner, D, Lovell, C and Schmidt, P. 1977. Formulation and estimation of stochastic production function models. *Journal of Econometrics*, 6: 21–37. [Crossref] [Google Scholar]
2. Battese, G and Coelli, T. 1995. A model for technical inefficiency effects in a stochastic frontier production function for panel data. *Empirical Economics*, 20: 325–32. [Crossref] [Google Scholar]
3. Bhalla, S and Roy, P. 1988. Mis-specification in farm productivity analysis: the role of land quality. *Oxford Economic Papers*, 40: 55–73. [Crossref] [Web of Science ®] [Google Scholar]
4. Brümmer, B. 2001. Estimating confidence intervals for technical efficiency: the case of private farms in Slovenia. *European Review of Agricultural Economics*, 28: 285–306. [Crossref] [Web of Science ®] [Google Scholar]
5. Coelli T Battese G Prasada Rao D 1998 *An Introduction to Efficiency and Productivity Analysis*, Kluwer Academic Publishers Cambridge MA. [Crossref] [Google Scholar]
6. Curtiss J 2000 *Technical Efficiency and Competitiveness of the Czech Agricultural Sector in Late Transition – The Case of Crop Production* Paper presented at the KATO Symposium Berlin 2–4 November 2000 [Google Scholar]
7. European Commission (1998) *Agricultural Situation and Prospects in the Central and Eastern Countries – Poland*, Directorate General for Agriculture Brussels [Google Scholar]
8. Fraser I Kim J 2001 *Estimating Technical Efficiency: Does the Choice of Estimation Methodology Matter?*, Department of Economics and Finance, La Trobe University Australia [Google Scholar]
9. GUS (2001) *Yearbook 2000*, GUS Warsaw [Google Scholar]
10. Greene W 1993 *Econometric Analysis* 2nd edn Macmillan New York [Google Scholar]
11. Hall, B and LeVeen, P. 1978. Farm size and economic efficiency: the case of California. *American Journal of Agricultural Economics*, 60: 589–600. [Crossref] [Web of Science ®][Google Scholar]
12. Horrace, W and Schmidt, P. 1996. Confidence statements for efficiency estimates from stochastic frontier models. *Journal of Productivity Analysis*, 7: 252–82. [Crossref] [Web of Science ®][Google Scholar]
13. Hughes G 2000 Agricultural decollectivisation in central Europe and the productivity of emergent farm structures PhD thesis, Wye College University of London [Google Scholar]
14. Jondrow, J, Lovell, C, Masterov, I and Schmidt, P. 1982. On the estimation of technical inefficiency in the stochastic frontier production function model. *Journal of Econometrics*, 19: 233–8.[Crossref] [Web of Science ®][Google Scholar]
15. Lund, P and Price, R. 1998. The measurement of average farm size. *Journal of Agricultural Economics*, 49: 100–10. [Crossref] [Web of Science ®] [Google Scholar]
16. Mathijs, E, Dries, L, Doucha, T and Swinnen, J. 1999. Production efficiency and organization of Czech agriculture. *Bulgarian Journal of Agricultural Science*, 5: 312–24. [Google Scholar]
17. Mathijs E Vranken L 2000 *Farm Restructuring and Efficiency in Transition: Evidence from Bulgaria and Hungary* Selected Paper American Agricultural Economics Association Annual Meeting TampaFlorida 30 July–2 August [Google Scholar]
18. Mathijs, E and Swinnen, J. 2001. Production organization and efficiency during transition: an empirical analysis of East German agriculture. *The Review of Economics and Statistics*, 83: 100–7. [Crossref] [Web of Science ®] [Google Scholar]

19. Meeusen, W and van den Broeck, J. 1977. Efficiency estimation from Cobb-Douglas production functions with composed error. *International Economic Review*, 18: 435–44. [Crossref] [Web of Science ®] [Google Scholar]
20. Morrison J 2000 Resource use efficiency in an economy in transition: an investigation into the persistence of the co-operative in Slovakian agriculture PhD thesis, Wye College *University of London* [Google Scholar]
21. Munroe, D. 2001. Economic efficiency in Polish peasant farming: an international perspective. *Regional Studies*, 35: 461 [Web of Science ®][Google Scholar]
22. Pouliquen A 2001 *Compétitivités et Revenus agricoles dans les Secteurs agro-alimentaires des PECO: Implications avant et après Adhésion pour les Marchés et les Politiques*. [Google Scholar]
23. SAEPR/FAPA (2000) *Stereotypes in the European Union concerning Polish Agriculture*, SAEPR/FAPA Warsaw. [Google Scholar]
24. Simar, L and Wilson, P. 1998. Sensitivity analysis of efficiency scores: how to bootstrap in nonparametric frontier models. *Management Science*, 44: 49–61. [Crossref] [Web of Science ®][Google Scholar]
25. Simar, L and Wilson, P. 2000. Statistical inference in nonparametric frontier models: the state of the art. *Journal of Productivity Analysis*, 13: 49–78.[Crossref] [Web of Science ®] [Google Scholar]
26. Singh S Coelli T Fleming E 2000 *Measurement of Technical and Allocative Efficiency in Indian Dairy Processing Plants: An Input Distance Function Approach* Working Paper No. 3/2000 Centre for Efficiency and Productivity Analysis, University of New England [Google Scholar]



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