

Economic efficiency of feedlot cattle farms in Thailand



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Introduction

Cattle raising has been identified as 1 of 14 main products in Thai agriculture. Although, the growth rates of cattle farms and heads have been recognised, beef production in Thailand has not been sufficient for domestic consumption. Therefore, production improvement is the main concern of this sector. The main purpose of this study is to measure and investigate factors affecting economic inefficiency of feedlot cattle farms in Thailand.

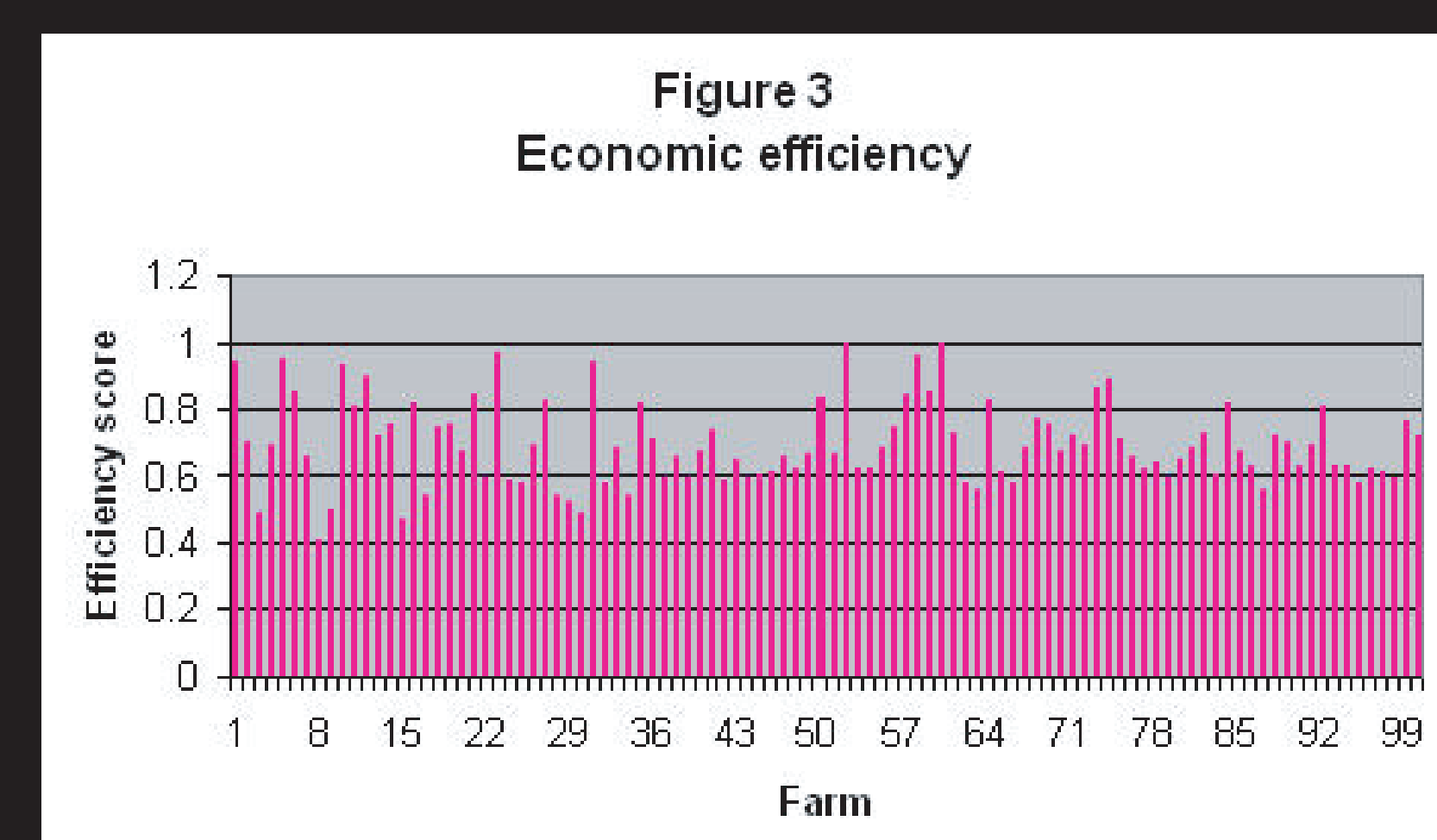
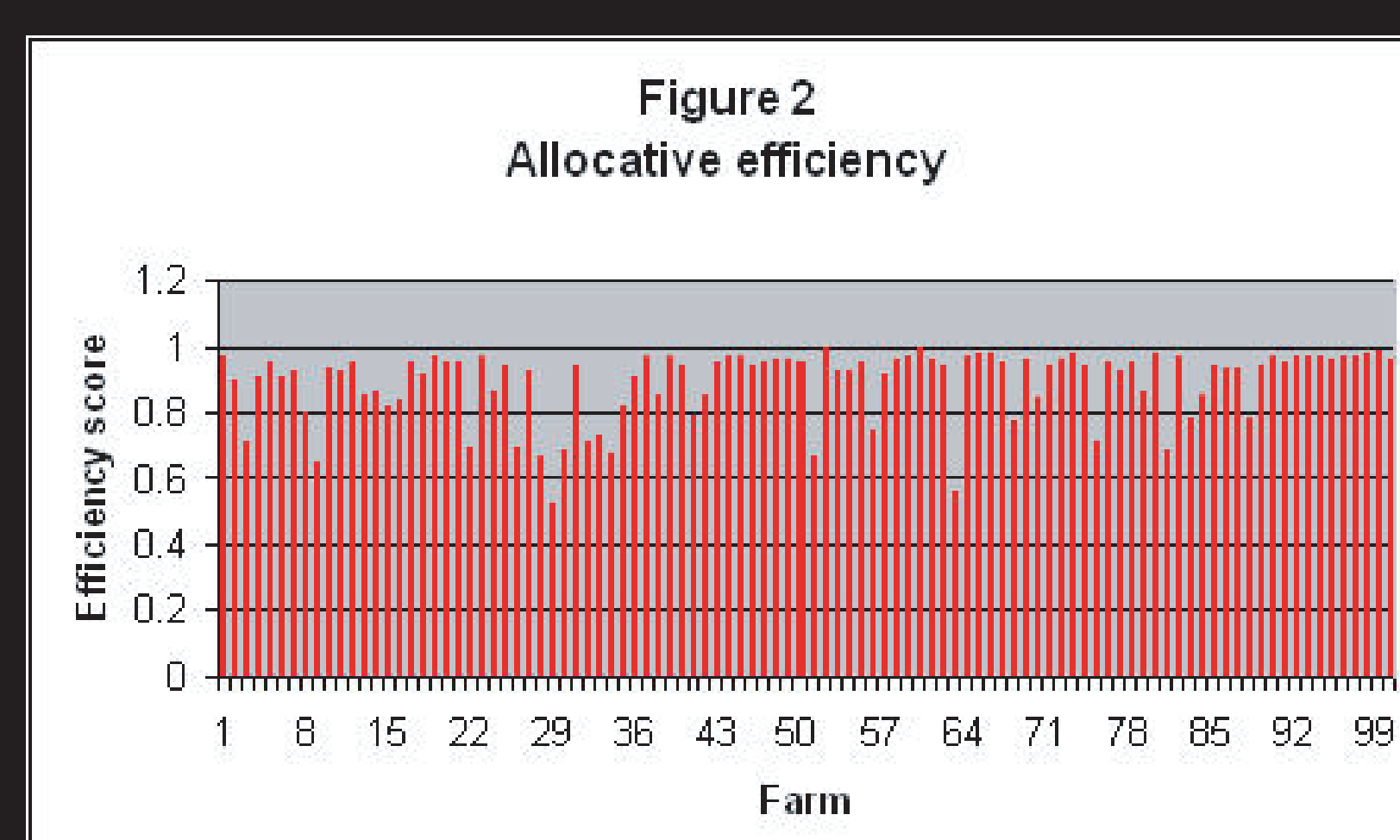
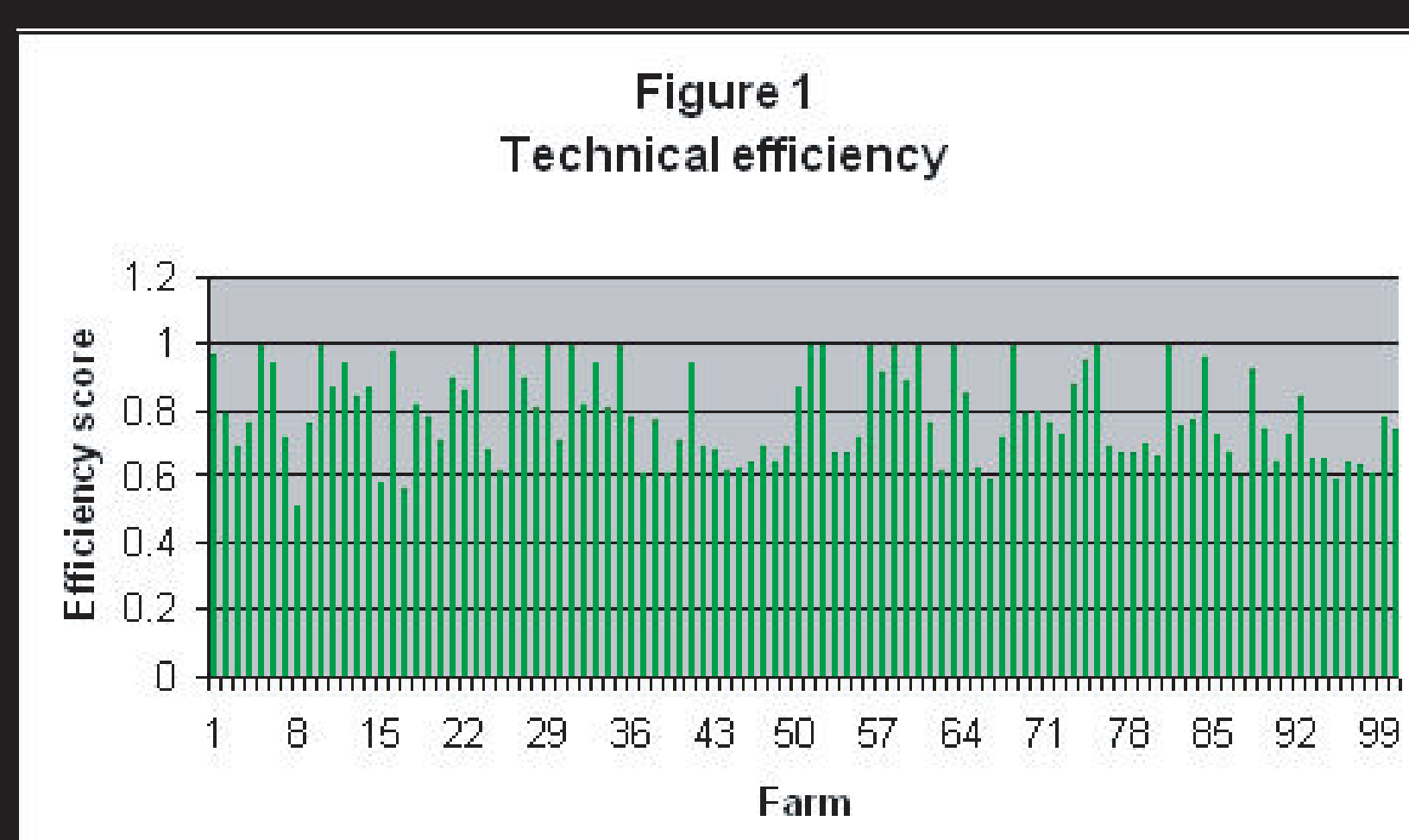
Methodology and Data

In the first stage, the data envelopment analysis (DEA) approach and farm-level cross-sectional survey data of cattle farms in two provinces of the Southern Region in Thailand are used to estimate technical, allocative and economic efficiency scores. In the second stage, a Tobit regression

(Long 1997) is estimated and examined the effect of farm-specific socio-economic and management factors on farm efficiency. Through this, the likelihood of changes in inefficiency scores is explained by the above factors.

Empirical Results

The empirical results indicate that there are significant possibilities to increase efficiency levels in Thai cattle farms (as shown in Figures 1-3). The producers who have used ready mixed cattle feed achieved higher levels of allocative and economic efficiencies and a smaller farm is likely to be economically more efficient compared to a larger one. In addition, the producers who have used native and Brahman mixed cattle are likely to achieve lower levels of allocative and economic efficiencies while there is no confirmation that of producers' age, education and experience, the differences in rough feed, the number of farm visits per year and belonging to farmer groups have influenced the technical, allocative and economic inefficiencies of cattle farms.



Policy Implications

The results indicate advantages in ready mixed cattle feed used by producers and small farms in Thai cattle production. Therefore, the development policies of the above areas should be used to increase the cost efficiencies of these inefficient farms in Thailand.

References

Long, J.S., 1997. Regression Models for Categorical and Limited Dependent Variables. SAGE Publications, London.