

ABSTRACT

This study aims to analyze the influence of operational capacity, green innovation, and technology spillovers on the performance of starfruit farming in Tuban Regency, East Java. Starfruit farming plays a significant role in supporting local economic sustainability and regional development, necessitating a comprehensive understanding of the factors influencing its success. This research employs a descriptive quantitative method with a multiple linear regression approach. Data collection was conducted through questionnaires distributed to 136 starfruit farmers using purposive sampling techniques. Data analysis was carried out using SPSS version 26 software. The results show that operational capacity and green innovation have a positive and significant partial influence on farming performance, while technology spillovers have a positive but not significant effect. Simultaneously, operational capacity, green innovation, and technology spillovers significantly influence farming performance, with an F-statistic value of 17.839 and a p-value of 0.000. The coefficient of determination (R^2) of 0.288 indicates that 28.8% of the variation in farming performance can be explained by these three independent variables. This study contributes theoretically by employing the Cobb-Douglas production theory to explain the relationship between operational capacity, green innovation, and technology spillovers with farming performance. Practically, this research provides recommendations for starfruit farmers and policymakers to enhance operational capacity efficiency, encourage green innovation, and strengthen technology adoption to improve productivity and farming sustainability. Therefore, the findings of this study are expected to support the development of sustainable agricultural practices in Tuban Regency.

Keywords: Operational capacity, green innovation, technology spillovers, farming performance, Cobb-Douglas production theory