

## **Technical Efficiency in Kenya's Sugar Production: a Stochastic Frontier Approach.**

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### **Abstract**

This study measured technical efficiency overtime and explored sources of technical inefficiency of sugar mills in Kenya. A time varying translog stochastic production frontier was simultaneously estimated with inefficiency effects model based on panel data. The mean technical efficiency level of the five sugar factories was found to be 79.83%. This suggests that factories on average were 20.17% off the fully efficient frontier. The results also suggest that decreasing returns to scale (0.23) prevailed in the sugar processing industry. In addition, technical change was driving the sugar factories off the frontier at an annual rate of 1.25%. Finally, the results suggest that capital-labour ratio, market share, sucrose content in sugarcane delivered and factory age had significant impact on technical inefficiency of the sugar factories.