

Efficiency Dynamics in Elementary Education Development in Odisha State: How Dropouts, Gender Disparity, and Regional Groups Influence?

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Abstract

This study investigates the efficiency dynamics of elementary education in Odisha, specifically examining the impacts of dropouts, gender disparity, and regional variations. The data required for the study is sourced from the Unified District Information System for Education Plus (UDISE+) and Odisha School Education Program Authority (OSEPA), covering the academic years from 2008-09 to 2021-22. The Directional Distance Function (DDF) of the Data Envelopment Analysis methodology is used to develop efficiency models. Significant disparities are observed between KBK and non-KBK districts, as well as scheduled and non-scheduled regions, revealing the diverse landscape of elementary education in Odisha. The study classifies districts into efficiency groups, with commendable efficiency levels noted in the majority of districts. Notably, the absence of KBK districts in lower efficiency groups suggests higher overall efficiency in these areas. Further, a second stage of panel Tobit regression is conducted to determine the efficiency determinants after the technical efficiency score has been obtained. This research offers valuable insights for policymakers to address the unique challenges faced by tribal communities in scheduled regions, promoting inclusivity and equitable education. The findings highlight both successes and challenges, emphasizing the crucial need for designed policies and sustained initiatives to enhance overall educational outcomes.

Keywords: Elementary education, data envelopment analysis, directional distance function, dropouts, regional disparities