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WORKING PAPER

# Competitiveness and Efficiency of Manufacturing Firms

Seenaiah Kale

February 2025

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# **Competitiveness and Efficiency of Indian Firms: Some Evidence from Pharmaceutical Firms**

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# Competitiveness and Efficiency of Indian Firms: Some Evidence from Pharmaceutical Firms

*K Seenaiah* \*

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*Abstract: This study examines the determinants of competitiveness and efficiency of India's pharmaceutical firms using firm level data from 2001-2023. Estimated results show that the imports in terms of capital goods and raw materials have positive and significant impact on competitiveness, it is also partly driven by the firm size, profitability and digitalisation. However, other critical variables namely R&D (technology effort) and exports shows insignificant sign, contradicts the theoretical expectations. Further, efficiency analysis through DEA shows that technical efficiency relatively deteriorated, during the post product patent act (2005) era than that of previous years. Overall results show the weak technological capability in driving efficiency and competitiveness of India's pharmaceutical industry—R&D or technological change is not significant driver of competitiveness or efficiency. However the large firms appear somewhat different, shows positive relationship between R&D and performance, but import dependence is large in general.*

JEL Classification: O32, O38, O25

Keywords: *Manufacturing policy, Competitiveness, R&D, Efficiency*

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*For the complete working paper, please contact the author at [seenaiah@isid.org.in](mailto:seenaiah@isid.org.in)*

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