

# EVOLUTION OF THE METHODOLOGY OF TECHNICAL AND ALLOCATIVE EFFICIENCY STUDIES IN ECONOMICS: A REVIEW OF LITERATURE<sup>1</sup>

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## ABSTRACT

Efficiency measurements have been a great concern of researchers with an aim to study the efficiency levels of almost all economic activities. Empirical estimation and identifying the determinants of efficiency are the major tasks in efficiency analysis. The main objective of this study is to investigate major changes taken place in the methodology of technical and allocative efficiency in economics. The historical approach is used as the methodology of this study. There was no accepted statistical methodology to measure economic, technical and allocative efficiencies until the study of Farrell (1957); “The Measurement of Productive efficiency”. In economics, economic efficiency has two components which are referred to as technical efficiency and allocative efficiency. Technical efficiency is associated with the ability to produce on the frontier isoquant, while allocative efficiency refers to the ability to produce at a given level of output using the cost-minimizing input ratios. Few alternative parametric methods are available in literature such as production, cost, profit, revenue and distance functions to analyze efficiency by estimating production technology. The nonparametric methodology involves mainly the use of linear programming techniques. According to available literature, it is clear that various approaches to efficiency analysis have been developed by two parallel traditions, the econometric method and the non-parametric data envelopment analysis. Each of these traditions incorporate its inherent merits and demerits. Findings of the study reveal that input distance function is the best methodology for measuring allocative efficiency if inputs quantities do not significantly vary across units of studies.

**Keywords:** Technical Efficiency, Allocative Efficiency, Economic Efficiency

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