Empirical Analysis

Empirical analysis refers to the process of collecting, analyzing, and interpreting real-world data to test a hypothesis or evaluate a phenomenon.

 Key Elements: Based on observations or measurements — not theory alone.

Often uses quantitative data (e.g., hospital records, surveys, costs).

Can be retrospective (past data) or prospective (collected forward in time).

Typically involves statistical tools like regression, matching, or modeling.

 In Context: “This study presents an empirical analysis of inpatient costs using data from Chinese tertiary hospitals.” ⬅ Meaning: The authors didn’t just speculate or build a model — they used actual hospital data to examine what happened after DRG reform.

⚠ Critical Nuance: An empirical analysis is only as good as its data and methods. If:

The data is incomplete,

The analysis ignores confounders, or

The statistical model is misapplied,

…then it can become empirical in form but meaningless in substance — i.e., quantitative noise dressed up as evidence.