

AGGREGATION IN INPUT-OUTPUT ANALYSIS— TWO ASPECTS

K. N. PRASAD

1.0 *Introduction*

As Input-Output Analysis is based on an assumption that each sector produces only a single commodity, it is implied that when commodities are aggregated into a sector, they are taken to be homogeneous commodities.

The main problem of aggregation in input-output analysis has remained confined to ensuring constancy of input-coefficients with respect to changes in the level of output. But as input-coefficients are generally expressed in value terms, and as the requirement of homogeneity is too exacting to be met in practice, they are likely to be affected by a change in the relative prices of the commodities aggregated into a sector. This difficulty can be avoided if commodities whose prices move proportionately are aggregated, because their relative prices being the same, they can be treated as composite commodity in conformity with Hicks-Leontief theorem on aggregation. Though there are certain theoretical ambiguities around this theorem, in the context of Input-Output Analysis, as the latter is a tool of empirical research rather than theoretical nicety, the problem of major concern is to see whether an aggregation scheme based on this theorem can be worked out. Furthermore, it is to be seen whether such an aggregation scheme tallies with other aggregation schemes existing in say 'Annual Survey of Industries', which is the main source of data for manufacturing sectors for construction of Input-Output Tables. Part One of the paper deals with this problem.¹

However, there is another problem of aggregation with respect to Input-Output Analysis concerning inverse elements i.e. A_{ij} elements

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