

ON MEASURING PACE OF DEVELOPMENT*— A CRITIQUE

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1. In their article 'On measuring pace of development', the authors have used the technique of factor analysis for measuring pace of development in the country. The authors have stated 'here is a measurement problem that has not been so far tackled. It is, therefore, proposed to do so.' The article is a pioneering attempt in another direction also, as it perhaps for the first time that the technique of factor analysis is applied to data which is in a time series form. This belief is strengthened by the absence of a reference by the authors to any similar studies in the past. This critique refers to the statistical aspect of the article. The economic analysis of the problem made by the authors and the choice of the particular variables they have studied are kept out of the purview of this paper.

Conclusions:

2. From this paper the most important conclusion that emerges is that the growth rate of 7.3 per cent in the index of development potential calculated by the authors is a completely misleading statistic. This is because a factor analysis of a time series data cannot enable one to estimate the regression coefficient (linear or geometric growth rate) of factor scores on time as it is indeterminate under factor analysis model and any estimate of regression coefficient ignoring this fact will be arbitrary in nature and no valid conclusions can be drawn therefrom. The calculated growth rate of 7.3 per cent per annum in the index of development potential, its comparison with the growth rate in national income and the conclusion of their article if based on this comparison, are not valid and therefore, not

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