

A MULTI-DIMENSIONAL PRODUCT, STEEL FORGINGS INDUSTRY STUDY IN RELATION TO SIMILAR TECHNO-ECONOMIC INDUSTRY STUDIES — A SUMMARY VIEW

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THIS paper attempts to specify the significance of an industry study¹ on steel forgings, a continuous multi-dimensional product, for sector specification in the inter-industry frame-work. The object of this paper is to bring out the salient features of the same study in the context of other techno-economic industry studies. For this purpose, this paper has been sliced into two sections. Section I deals with, the theme of and need for the study, use of engineering data and a brief review of earlier attempts on similar works. Section II provides the summary and major findings of the study.

1.1 *Theme of the Study*

The technological forging process,^{1a} by its definition, nature of the products and technological operations, is a continuous phenomenon, whereas an economic process with unique input-output combination or an activity² or a combination of such activities, needs to be a discrete concept to serve as a sector in the inter-industry analysis. The technological forging process is a continuous pheno-

¹ Unpublished Ph.D. theses of the author, "Process analysis of steel forgings industry in India with special reference to problems of continuity and multi-dimensionality for sector specification in the inter-industry frame-work". The term 'study' hereafter refers to this thesis.

^{1a} See Somayajulu, V. V. N., "Input and capital structures as parameters of instantaneous production functions of Firms and technological process in steel forgings industry in India", *Artha Vijnana*, Vol. 12, No. 4, December 1970, pp. 574-593.

² The terms, economic processes, activities and product groups with unique input output combination, are synonymously used in this study, though distinctions of them are also found in the literature. See Koopmans, T. C. (ed.), *Activity analysis of Production and Allocation*. Cowles Foundation in Economics, Monograph 13, Chapter I, p. 15. John Wiley and Sons, Inc., New York 1951. See also Tibor Barna, "The interdependence of British economy", in the *Journal of the Royal Statistical Society. Series A (General)*, Vol. CXV, Part I, 1952, pp. 32-33.