

# An Axiomatic Model of Dynamic Productions

안   용

서경대학교 산업공학과

## Abstract

Modeling the production process is a necessary and essential aspect of the production planning. Multi-stage manufacturing systems are typically an interacting collection of production activities. The outputs of production activities may be intermediate products serving as inputs for some activities of the system or final products, or both. The flows of intermediate products are represented as arcs of a linear graph. In such terms production can be modeled by a directed network connecting activities along which system exogenous inputs, intermediate and final products flow dynamically. This paper introduces an abstract model of dynamic production processes. With regard to the theoretical concept, our model is different from another dynamic production models including intermediate products flows. It is not based on the concept of a dynamic production correspondence and dynamic production functions, but the technology model of Koopmans.