

## Tutorial 8 Managing Business Processes

### Objectives:

- Describe the concepts of material flow, information flow, customer flow and workflow
  - Discuss how these flows are managed in a company and a supply chain
    - Apply line balancing principles
    - Perform load distance analysis
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1. Why are customer flows and workflows important to the firm?
2. Describe the concepts of material flow and why these are important to the firm.
3. Describe the various types of flow analysis and the impact that flow has on the organization.
4. ABC Communications has redesigned one of its core business processes. Processing times are not expected to vary significantly so management wants to use line-balancing approach to assign activities to workstations. The process has 11 activities, and the market demand is to process 4 jobs per 400 minute working day. The table below shows the standard time and immediate predecessors for each activity in the process.

Activity	Time (minutes)	Immediate predecessor
A	70	-
B	15	A
C	8	-
D	32	-
E	47	C,D,G
F	25	B,E
G	61	-
H	52	-
I	29	G,H
J	42	I
K	50	F,J

- a) Construct a precedence diagram.
- b) Calculate the cycle time corresponding to a market demand of 4 jobs per day.
- c) What is the theoretical minimum number of workstations?
- d) Use the longest activity time rule as the primary rule to balance the line.
- e) What is the efficiency of the line? How does it compare with theoretical maximum efficiency?