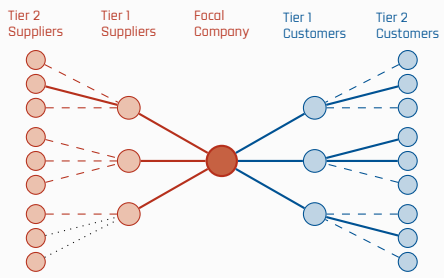


TITLE 1

What is a Supply Chain?

Network Model



Tier 2 Suppliers Tier 1 Suppliers Focal Company Tier 1 Customers Tier 2 Customers

In a manufacturing context, a supply chain can be seen as a network of suppliers, manufacturers, distributors, and retailers.

What is Supply Chain Management?

SCM Activities

Product-Process Matrix/Cube

Customer Order Decoupling Point

Flows

Materials Flow

Subsubtitle 2

Inventory: Concepts & Methods

Inventory

Different PoV: Finance/Accounting vs. Production/Logistics/SCM

Why hold inventory?

- Cover process time
- Decouple process

Inventory decisions

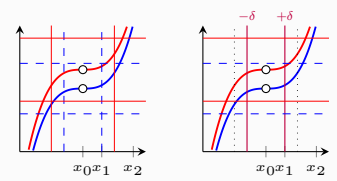
Inventory Costs

Inventory Costs

Inventory: Deterministic Models

EOQ

Flows



Network Model

EOQ formula:

$$Q^* = \sqrt{\frac{ABC}{D}}$$

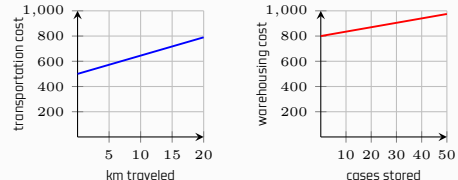
Appendix 1

Mathematical Functions

Linear Functions

$$f(x) = mx + b$$

Cost functions: f (Level of Activity) = Fixed Cost + Variable Cost (Level of Activity)



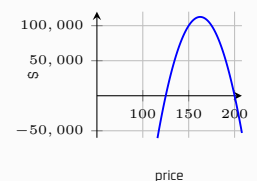
Linear Regressions

fig

Quadratic Functions

$$f(x) = ax^2 + bx + c$$

Profit Functions:



$$V(p) = 20,000 - 80p$$
$$R(p) = (20,000 - 80p)p$$
$$C(p) = 500,000 + 75(20,000 - 80p)$$
$$P(p) = R(p) - C(p)$$

Parcel trucking

