



Learning Lab

© SDA Bocconi School of Management

Learning Lab Product Presentation

Stock Management Simulation

January 2012

Stock Management Simulation

Description

A web-based simulation about **Stock Management Decisions** and related economical and financial effects in company's prospective.

Scope

- To experiment stock management and supply management decisions and effects.
- To learn the cause-effect relations between stock decisions and company's profit.
- To understand how to define a systematical approach to stock management decisions.

Benefit

- ERP-like data analysis and data input.
- Complex situation, with different alternatives (supplier, unit cost, payment terms, stock management technique) and constraints (minimum lot, lead time).
- What-if analysis and try-and-error simulation.

Stock Management Simulation

What it is

A web-based simulation of stock management.

The participants are asked to manage **all the decisions related to the stock of a trading-retail company**. They have to choose the supplier (with different unit cost, lead times, minimum order quantity, administrative and logistic cost) and the stock management technique (Fixed Quantity or Fixed review interval).

The decisions are processed on a company base and **the results are expressed in term of logistic performances** (Warehouse cost, Weekly Coverage, Customer Service Level), **economical performances** (Gross Margin, EBIT, Net Income) and **financial performances** (Net Working Capital and Financial Cost)

The simulation allows different “run” (set of decisions), with figures and graphs in order to compare and analyze the results and choose the best strategy.

Stock Management Simulation

Is aimed at

Helping participants to experiment a “real life” situation and focus on the relevant elements related to the stock decision.

Allowing participant to simulate a complex scenario and to experiment the effects of their operative decisions on the company’s performances.

Helping instructors to manage group’s decisions, with an easy web-based tool to collect, compare and show the effects of different strategies.

Stock Management Simulation

Stock Management Simulation supply chain management

[Welcome Player #2](#) | [My game](#) | [Scenario](#) | [Logout](#)

Scenario Home Depot

[Download as Excel](#) | [Download as CSV](#)

Parameter	Value
Client payment terms day	60 days
WACC	12.00%
Financial cost of debt	8.00%
Annual store cost	€25,000.00
Store area	150.0 m ³
Third parties store cost (€/m ³)	€200.00
Fixed costs	€700,000.00
Store value	€120,000.00
Equipment value	€30,000.00
Paid equity	€300,000.00
Taxes	45.00%

Categories

Name	Actions
Electronic Appliance	Show
Furniture	Show
Household appliance	Show
Kitchen accessories	Show
Porcelain	Show

Read the scenario

Stock Management Simulation

Stock Management Simulation supply chain management

Welcome Player #2 | My game | Scenario | Logout

[Download scenario](#)

Make a choice for every article in the following categories. Clicking on a link will show the list of articles that belongs to the category.

[Electronic Appliance](#) [Furniture](#) [Household appliance](#) [Kitchen accessories](#) [Porcelain](#)

Article ELE1

Category	Sale price	Unit volume	Year demand	Weekly demand	Weekly sigma
Electronic Appliance	€425,00	20,0 dm ³	100	1.923	2

[show article size comparison](#)

Your choices

No choice was made yet for this article.

Supplier: Local Supplier [Choose this supplier](#)

Nationality: national

Unit Cost	Logistic Cost	Administrative Cost	Minimum Lot	Leadtime	Payment Terms
€250,00	€50,00	€20,00	10	1 Week	120 Days

Supplier: Local Supplier [Choose this supplier](#)

Nationality: national

Unit Cost	Logistic Cost	Administrative Cost	Minimum Lot	Leadtime	Payment Terms
€255,00	€50,00	€20,00	1	1 Week	120 Days

Select the Management Tech

Choose a management technique from the drop-down list and select a supplier by clicking on the corresponding box.

If you choose the **fixed quantity method** the order quantity must be a multiple of the minimum lot. Instead for the **fixed reviewed interval method** the interval must be > minimum lot / weekly demand

 Fixed Quantity Method
 Fixed Reviewed Interval Method

[Save this Choice](#) [Show hint](#)

1. Choose the category

2. Choose the article

3. Make your management choices

Stock Management Simulation

Detailed report

[logistic performance] [financial performance] [service level]

[revenues] [purchase cost] [gross margin] [shipping cost] [administrative cost] [warehouse cost] [net margin] [financial charges] [net income]

[inventory value] [weekly coverage] [average occupied warehouse]

[net working capital] [lost revenues]

[revenues on maximum revenues]

[summary report] [RONA] [ROE]

1. Choose the report you want to view

[top]

Player	Revenues	Cost of good sold	Gross margin	Shipping cost	Administrative cost	Warehouse cost	Other expenses
Player #1	€3,075,719.00	(€1,813,142.00)	€1,262,577.00	(€93,648.00)	(€18,775.00)	(€25,000.00)	(€700,000.00)
Player #2	€3,075,137.00	(€1,739,604.00)	€1,335,533.00	(€104,603.00)	(€3,972.00)	(€27,325.00)	(€700,000.00)
Player #3	€3,075,686.00	(€1,702,577.00)	€1,373,109.00	(€153,467.00)	(€3,735.00)	(€36,786.00)	(€700,000.00)

2. View the detailed reports with your own results

Player	Operating profit (EBIT)	Financial charges	Net income	Tax
Player #1	€425,155.00	(€8,401.00)	€416,753.00	(€187,531.00)
Player #2	€499,634.00	(€21,904.00)	€477,731.00	(€214,979.00)
Player #3	€479,121.00	(€34,281.00)	€444,839.00	(€200,178.00)

Stock Management Simulation

<http://learninglab.sdabocconi.it/stocksim>

Contacts

<http://learninglab.sdabocconi.it/>

02 5836 2771