

EUROPOLI 2020

The Systemic Business Simulation

POLITECNICO DI MILANO



**DIPARTIMENTO
DI INGEGNERIA
GESTIONALE**

Management Utilities



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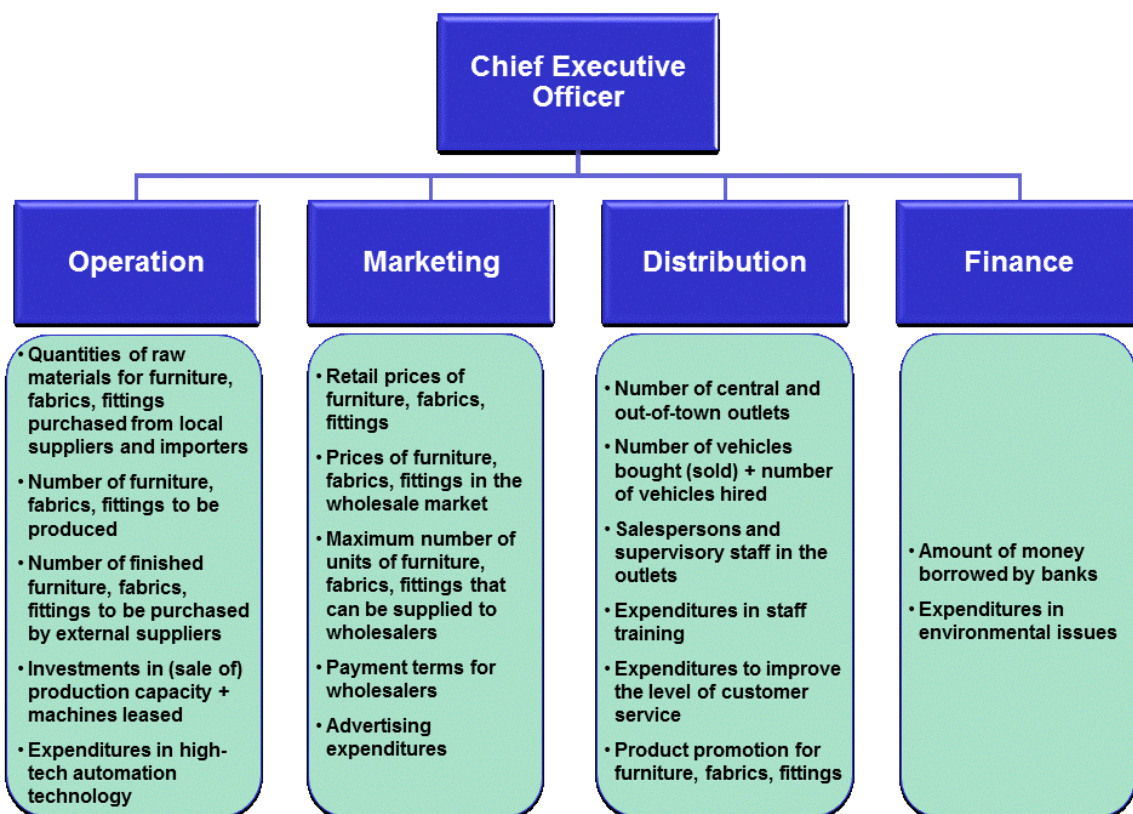
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An Introduction to EuroPOLI

EuroPOLI is a simulation designed to illustrate the relationships between the different functions of a company, e.g. manufacturing, procurement, marketing, distribution, retailing, finance, and the effects of decisions made in these functions on company performance in a competitive marketplace.

The simulation aims at reproducing all the conditions that may be met in a real-life situation. It is, of course, a simplified version of reality, but it is sufficiently realistic to emphasise the need for integration of the diverse company functions.

Figure 1: List of decisions to be taken.



Your team will manage a vertically integrated company, that manufactures three related products - fabrics, fittings and furniture - and sells directly to consumers through its own retail outlets. The company also trades through wholesalers. Your company operates in the European market and competes with several other companies. As a Top Management Team, you will take a series of decisions in 5 quarters (namely, from Q9 to Q13) to improve the performance of your company (namely, the EBIT and the share values, that depend on the company profitability, financials and assets, and competitive positioning). All the decisions your team is supposed to take fall, broadly speaking, into four company functions, namely Marketing, Distribution, Operations and Finance. The complete list of the decisions to be taken is presented in Figure 1. All decisions are interactive, i.e. the decisions of any team will have an impact on the whole

marketplace and on the performance of competitors. Decisions will have both short-term operational and long-term strategic dimensions.

The ultimate success of your company will reflect the quality of your management of the different company functions, and your judgement of the competitive marketplace.

You are going to make your first set of decisions at the beginning of the New Year (i.e., for Q9: January-March 2020), after having had the opportunity to analyse the data for the previous two years (i.e., from Q1 to Q8). All the companies competing in the same market start from the same data and have equal resources and equal shares of the total market. All the information necessary to make decisions and the areas where decisions are to be inserted can be found in the virtual environment. In the following, the structure of this environment is presented and details on the information reported in each area of the virtual environment are provided.

Figure 2: Your Team of assistants (Alison, Rhonda, Jeff, David) is waiting to help you: they are the managers that you will find in the virtual environment



The virtual environment

The virtual environment is articulated into 5 main areas, corresponding to 5 offices that you have in your company: *Marketing*, *Distribution*, *Operation*, *Financial control*, and *Chief Executive*. Decisions are to be inserted in the action forms you can find in the first 4 areas and can be checked using the table of synthesis reported in the last area.

In the following, the contents of each area are described. Please, note that knowledge of these contents is crucial to be able to compete in the challenge.



MARKETING

Positioning

You are competing in both the Retail and Wholesale markets. These markets are completely separate and the reasons why the customers buy are different.

In the Retail Market, your positioning, as captured by your Market Share, is affected by Product Price, Product Promotion, Product Quality, and your ability to attract customers into your retail outlets. The mix of these factors forms the **Competitive Index**.

A key component of the Competitive Index is the **Attraction Index**, that captures your company's ability to attract customers into its outlets. The value of the Attraction Index is related to:

- the number and location of the outlets; the higher the number of the outlets and the more central their location, the greater is your capacity to attract customers;
- your advertising expenditures, which improve the company image;
- the quality of your services, which builds customer loyalty;
- your expenditures in environmental issues, which increase your appeal to the customers who are sensitive to ecological concerns;
- your previous market share, which reflects the reputation that you gained.

In the Wholesale market, your Market Share is affected by Product Price, Product Quality and Payment Terms.

Retail Market

Here you can view:

- the Market Share in number of units sold in the retail market per each product line;
- the prices, quantity and value of sales (i.e., revenues in the retail market) of your competitors;
- the quarterly evolution of the total demand and total sales in the retail market.

Retail Price

The price per unit must be decided for each of the 3 products. The prices must be integers (i.e., decimals are not allowed).

Prices have a lower limit: products cannot be sold below the cost of production. The upper limit will be determined by market forces. In no quarter the price of a product can be more than 250% higher than in the previous quarter.

Company Image

Advertising

The amount spent on store advertising will have an impact on your company image. The effect of advertising expenditures is immediate and cumulative, and it is influenced by the advertising expenditures of your competitors. In particular, the specific position of every company is determined by the variance of the investments with respect to the market standard trend (that is a datum available in the virtual environment). The higher is the distance of your advertising expenditures from the market standard trend, the higher will be the impact of your expenditures on customer perception.

Environmental Issues

Your active concern in these important issues may be demonstrated by your expenditures in anti-pollution and conservation programmes.

These expenditures will improve your company image and, thus, increase your attraction index. These expenditures may also allow you to gain access to preferential borrowing rates from banks. Indeed, as explained in the *Financial control* section of the current manual, the Government is encouraging banks to lower the interest charges to companies investing in Environmental issues.

Similarly to the effect of advertising expenditures, the impact of expenditures in Environmental issues is influenced by your competitors' expenditures. The specific position of every company is determined by the variance of the investments with respect to the market standard trend (a datum available in the virtual environment). The higher is the distance of your expenditures on environmental issues from the market standard trend, the higher will be the impact of your expenditures on customer perception.

Wholesale Market

In each quarter, wholesalers establish quantities, the minimum relative quality that is acceptable, and maximum price considered, and you can choose whether to enter the Wholesale market. If you choose to enter it, you must indicate:

- the maximum number of units you are prepared to supply in each product line. Please, note that you may offer less than the full amount required, but you cannot offer more than the amount required.
- the relevant prices: the price for each product must be equal to or lower than the price stated by wholesalers. Please, note that the price cannot be varied by more than 20% of the price stated in the last quarter in which you have been selling in the Wholesale market.

- the quality, that must be equal to or higher than that stated by wholesalers.
- the payment terms, i.e. the number of months credit you are prepared to offer to wholesalers, ranging from 0 to 3 months.

There are no transport charges as wholesalers are responsible for collecting the purchased goods from the point of manufacture.

The wholesale market is supplied from current production. It can neither be supplied from stock from earlier production runs nor from bought-in stock. Products for the wholesale market have priority over retail sales and are taken from production before serving the retail market.

Margins

The profit margins reported in the *Marketing* area are computed as revenues minus costs. The costs include the costs of products sold (comprising costs of production, costs of raw materials, costs of machines based on their usage = Gross Margin) and commercial costs (including outlets' rental, salaries of the employees working in the outlets, product promotions, customer service and advertising expenditures). The margins reflect a full costing approach where almost all costs are divided on the three product lines. The costs of products are calculated on the real cost of purchase, stock and production. The outlets' costs (rental and salaries) are proportioned to the revenues level of each product line. The commercial costs include advertising (related to the revenues level) and the specific promotions.

Margins per unit simply display the total margins divided by the number of product units sold.



DISTRIBUTION

Retail Sales

The number of product units available for the retail market is equal to the stock at the end of the previous quarter plus the production of the current quarter minus the quantity sold to the wholesale market. As you are obliged to keep a 10% stock-holding of each product, you can never sell more than 90% of the goods available for the retail market. This maximum proportion may drop due to scarce effectiveness of your human resources or space unavailability in your outlets. The maximum sales display the limit of sellable product for the quarter.

Once the deadline for making decisions has expired, the system displays *First Choice Sales*, that are your actual retail sales and reflect the market response to your decisions. First Choice Sales are related to the market demand and the competitive level, but may be limited by structural internal factors of your company. The system also displays *Second Choice* (additional) *Sales*, that are orders which a competitor has not been able to satisfy and you have benefited. You will gain these orders only if you have goods available and your competitive index is above the market average.

Retail Outlets

Location

You have retail outlets located in city central areas (central outlets) and in suburban shopping malls (out-of-town outlets).

The level of sales is influenced by the number of retail outlets and their location. Generally, the more outlets you have, the greater your potential to increase sales. When the challenge starts, you have 8 central and 13 out-of-town outlets.

There is a charge per period for Rental and Council Tax for each outlet. For Q9 (i.e., January-March 2020), the charge for central sites is € 500,000 per year. For out-of-town shops the charge is € 240,000. These charges appear in the Profit and Loss Account of the Finance Report (see the *Financial control* section of this manual) and may vary from quarter to quarter. Changes in rental and the Council Tax are reported in *The Environmental News*.

You may change the number and location of your outlets through investments (i.e., in the Decisions-Distribution you insert the number of new outlets in the action form) or disinvestments (i.e., you insert a negative figure). Newly acquired outlets come into service immediately. If you do not renew the rental of an outlet, you will incur a penalty clause being equal to a quarter's rental.

Retail Outlets Capacity

Your company sales are limited by the total product volume that your outlets can handle in a quarter. In each quarter, an outlet can handle a limited quantity of

goods, measured in space units. The different products have different space requirements, as shown in the following table.

Item	Space Units
Fittings	1
Fabrics	5
Furniture	10
Central outlet	40,000
Out-of-town outlet	55,000

Customer Service

The expenditures to improve the level of customer service in your retail outlets, e.g. more check-outs/crèche/baby changing-rooms/restaurants/parking etc., will increase the attractiveness of your outlets (see again the description of the Attraction Index in the Marketing section of the manual).

Product Promotion

Product Promotion is the amount you decide to spend on promotional activities for each product in the quarter. Please note that:

- there is an immediate effect on customers in terms of a reduction of the perceived price;
- it is suggested to keep promotion not higher than 15% of the forecasted revenues for each product;

Please, remember that if you are unable to meet your orders, they may be offered to competitors.

Human Resources

Employees in your retail outlets fall into 2 categories: Salespersons and Supervisory Staff. The salaries for the 2 categories of employees are specified in the *Environmental News*.

Your capacity to sell goods is not only related to the number and location of your outlets, as above mentioned, but also to the number and skills of your supervisory staff and sales people. Their skill level is related to your training budget and the support for your customer services. Investment in training will improve the effectiveness of your human resources leading indirectly to increased sales and profitability. When the effectiveness reaches 100%, all retail customers are perfectly served by the active human resources. As above mentioned, a lack of effectiveness may reduce the sales volumes.

Your initial supervisory staff is composed of 140 people. They are managing 594 sales people.

The number of people you employ in each category can be increased or decreased. In particular, a negative figure indicates a reduction in levels (please, note that in any quarters the reduction cannot exceed 10% of the previous quarter levels).

To increase effectiveness, you can employ more people, train current employees, or both.



Transport

Finished goods cannot be stored at the factory, hence, in each quarter, you need sufficient vehicles to deliver your products to your central warehouse. You are not required to provide transport for goods supplied to the wholesale market. As mentioned above, wholesalers are responsible for collecting finished goods from the point of manufacture and will incur all transport costs.

Each new vehicle has a capacity of 30,000 space units in its first quarter. Vehicles may be bought at a cost of €80,000. Vehicles become available in the quarter following the purchase. In each quarter, vehicles will depreciate by $\frac{1}{12}$ on the original value. There is no resale market for vehicles.

There is a fixed charge of €0.3 per space unit for all goods delivered to the central warehouse. As mentioned above, the different products have different space requirements; fittings take up 1 space unit, fabrics 5 space units and furniture 10 space units. Any combination of products is possible in the same vehicle.

Emergency Hire

When you have insufficient vehicles to immediately move the products to your central warehouse, an external supply of transport is automatically engaged at a hiring cost of €0.75 per space unit.



OPERATIONS

Your company has a manufacturing capacity for producing all products, which can be supplemented by purchases of finished products from external suppliers.

Raw Materials

Raw materials for each product may be purchased from local suppliers or from importers. Local supplies are available immediately, while imported supplies are available at one month delay.

The quality of imported supplies is more uncertain (usually lower), but the cost is lower. Due to the one month delay, in each quarter only $\frac{2}{3}$ of the total ordered is available for the current quarter; the remainder will arrive the following quarter.

The quantity of raw materials available for use in the next quarter is computed as End Stock + deliveries pending (i.e., the remaining $\frac{1}{3}$ of raw materials purchased in the previous quarter).

The value of raw materials held in stock is evaluated in the financial reports on a LIFO basis, as forced by the local fiscal government despite the effective use of the raw materials.

The quality of raw materials used in the production process may suffer from goods deterioration. For this reason, the production process will use raw materials on a FIFO basis.

Raw materials do not incur warehouse costs.

The amount of raw materials purchased must be rounded to the nearest hundred.

Bought-in Finished Goods

Bought-in finished goods are variable in quality. Their quality, the price at which they may be bought, and any discounts for volume purchases are shown in *The Environment – Goods News* for the quarter.

The amount of bought-in finished goods must be rounded to the nearest hundred.

Machines – manufacturing facility

Your overall manufacturing capacity is measured in production hours. The different products require different amounts of production hours, which can be modified through investments in Hi-Tech Automation Technology.

Investment in New Production Capacity



Manufacturing capacity can be bought or leased.

Buying a new machine with an initial capacity of 1.500 production hours will cost €240,000. New machines do not become available until the quarter after the purchase. Your manufacturing capacity will continually depreciate due to the ageing of machines. The life of each machine is 3 years, therefore, in each quarter, manufacturing capacity will depreciate by 1/12 of the initial capacity in both effectiveness and value.

In case of leasing, a similar machine will cost € 40,000 per quarter for a fixed contract of four quarters (i.e., 1 year). Leased machines may be used immediately. Manufacturing capacity will be reduced by 1/12 of the initial capacity each quarter.

Sale of Production Capacity

If it becomes necessary or desirable to sell owned machines in order to reduce the production capacity, machines can be sold at 50% of current depreciated value, not exceeding the capacity of owned machines. Please, note that the oldest machines are always sold first. Machines go out of use immediately, however the system will not show an immediate reduction in hours: you will need to calculate this reduction by yourself. To reduce the number of machines, insert a negative figure. Cash realised from the sale of machines is not received until the beginning of the quarter following the sale.

When machines have ended their 3-year life they are no longer available for use (i.e., it is not necessary to insert a negative figure!) Please, do not sell machines when they are at their 11th period as there is no customer interested in buying them.

Note: The table listing the ageing of your machines in *Operations – Machines*, displays historical information, it does not represent the present quarter (e.g., if you are in Q9, the system will display information on Q8).

Production Process

The number of finished goods to be produced and/or purchased from external suppliers has to be decided.

The production hours required to manufacture the products differ for each product line and are specified under *Hi-Tech Automation Technology*. The production hours required are reduced as a consequence of your hi-tech automation technology expenditures.

The production levels are constrained by raw material supplies and the maximum number of hours of production capacity available. The maximum

capacity is shown both in the *Management Report* under *Machines* and in the *Operations* area of the virtual environment.

The cost of production includes labour and it is the same for all the companies in the market. The cost of production increases by an inflation rate.

Quality of Production

Hi-Tech Automation Technology

The quality of the products is affected by Hi-Tech Automation Technology (AT) expenditures. Such expenditures will enhance the overall quality of your products and reduce the production hours required to manufacture products, thereby increasing your production capacity. The effect of Hi-Tech AT expenditures is immediate and cumulative, and, similarly to the effect of expenditures in advertising and environmental issues, it is influenced by your competitors' expenditures. In particular, the specific position of every company is determined by the variance of the investments with respect to the market standard trend (that is a datum available in the virtual environment). The higher is the distance of your Hi-Tech AT expenditures from the market standard trend, the higher will be the impact of your expenditures on customer perception.



FINANCIAL CONTROL

Financial Reports

Two Financial Reports are available in the reports area:

- the Balance Sheet;
- the Profit and Loss Account (P&L).

In addition, in the *Financial Control* area of the virtual environment, there are specific dedicated pages to display details of the economic, balance, finance position.

BALANCE SHEET

ASSETS:

Machines/Vehicles Net Value

The Balance Sheet shows the depreciated values of the machines and the vehicles, respectively.

Stock of Finished Goods and Raw Materials

The value of the various categories of stock shown in the report is computed following the criteria described in the Operations section of the manual.

Accounts receivable

The accounts receivable equal the total amount of outstanding money from the wholesale market from deferred payment terms and also a third of retail revenues of the quarter.

Cash

Cash represents the amount of cash flow that the company holds to cover the current commitments (i.e., rentals, salaries, leased machines) and the decisions for the quarter which imply payments in the current quarter.

LIABILITIES:

Share Capital

This figure remains unaltered throughout.

Loans

The amount of loans includes all previous loans plus the loans applied for in the current quarter minus any loans repaid.

Creditors (Accounts payable)

The value of the bills you will have to pay during the next quarter.

Provision for Tax

The accumulated provision since the last tax payment. Tax payments are made at the beginning of each year using cash.

Cumulative Profit

The accumulated net profit (i.e., retained earnings).

P&L

This is the complete record of income and expenditures. It is displayed in two separated pages: the first one shows the quarter and the cumulative year P&L (with the percentage over sales); the second one compares the trend of the last 4 quarters.

The P&L will show:

The total revenues from sales in both retail and wholesale markets

Unit sales x price

Please, remember that goods cannot be sold below the cost of production. In no quarter can a price be more than 250% higher than in the previous quarter.

Any investment income

Interest earned on surplus cash.

Changes in the value of finished goods in stock and changes in the value of raw material stocks

Stocks of both finished goods and raw materials are valued on a LIFO basis.

Costs of Production

The production costs of all the product units manufactured in the quarter. The costs of production increase by an inflation rate and are computed as: Units x Production Cost/unit

Costs of Raw Materials

The total expenditures incurred in the quarter to purchase raw materials. They are computed as: Quantity x Price for local supplies plus Quantity x Price for imports.

Costs of Bought-in products

Total costs of all bought-in Finished Goods.

Fixed Costs

They include the quarter costs of all support services, maintenance of buildings and equipment, etc. Fixed costs are calculated as a fixed value of €15,000 per operative machines per quarter.

Depreciation on machines

Each quarter, depreciation is 1/12 of the original cost of each production unit you own, starting from the quarter following the purchase.

Leased machines

Expenditures on leased machines for the quarter.

Depreciation on vehicles

Each quarter, depreciation is 1/12 of the original value of the vehicle, starting from the quarter following the purchase.

Transport Costs

The total costs in the quarter for the transportation of goods to your central warehouse.

Please, remember that all the goods produced in your own factories, other than those destined for

the wholesale market, have to be transported immediately to a central warehouse adjacent to your retail outlets. There is no facility for storage of finished goods at the factory. If your own transport capability is inadequate, outside contractors are automatically brought in. The full costs of transportation are computed as the sum of the following costs.

Costs of using own vehicles = number of transported space units x 0.3 €/unit

Costs of hired transport = number of transported space units x 0.75 €/unit

Warehousing Costs

There is a fixed cost of €300,000 + a variable cost of €2 per space unit for stock held at the end of the quarter.

Loss on the Sale of Plants

The loss sustained when production capacity is sold-off at 50% of current value. Machines sold depreciate in the quarter of sale. Please, remember that the oldest machines are sold first.

Cost of Retail Outlets

The total rent and taxes payable for the quarter for all retail stores, both central and out-of-town. Please, remember that there is a penalty equal to one quarter rental if you do not renew the lease of an outlet. For Rental Charges see the *Environmental News*.

Salary Costs

Total costs of all supervisory staff and sales persons employed during the quarter. For the Salary Levels see the *Environmental News*.

Interest Payable

Interest payable on outstanding loans during the quarter.

Other Expenditures

The sum of the expenditures that you decided to incur in the quarter for:

- Hi-tech AT
- Environmental issues
- Promotions
- Advertising
- Customer Service
- Staff Training

Profit before Tax

Total Income - Total Expenditure

Please, note that the virtual environment shows P&L per quarter, while the Financial Report that can be printed shows it cumulative for the year (i.e., 4 quarters).

EVA – Economic Value Added

EVA is a method to calculate the return on company investments by estimating the economic profit of a company. EVA is the net profit less the equity cost of the company's capital. It can be monitored only at the end of the fourth quarter of each year.

Bank Loans

Each company will have cash and the ability to borrow from banks.

Money borrowed will be charged at 2% interest per quarter. (In the previous periods the interest rate was 6% per year and has been raised to 8%)

Preferential borrowing rates apply to companies committed to so called "Green Issues" (i.e., the Environmental Issues described in the Marketing section of the current manual).

The amount of money which banks are prepared to lend you reflects their assessment of your performance. Banks indeed establish a maximum level of allowed borrowing each quarter (= Credit Rating).

Money, at prevailing rates of interest, may be borrowed up to this level but not beyond.



The level of allowed borrowing increases with rising profitability.

Loans may be repaid at any time. Typing a negative figure indicates a repayment.

Both in case of new loans and in case of loan repayments, the cash transfers occur at the end of the quarter.

Environmental Issues

Your active concern in these important issues may be demonstrated by your expenditures in anti-pollution and conservation programmes. The Government is encouraging banks to lower their interest charges to companies demonstrating higher than average commitment to such programmes.

For these companies, normal bank interest charges for the quarter will be reduced by 0.2% for each €100,000 invested up to a maximum of €500,000 in any one quarter (i.e., the maximum reduction of bank interest is 1% per quarter). Bank interests are charged on previous borrowings; the reduction for environmental expenditures is seen in the quarter when the expenditures have been made.

Payment of Tax

There is corporation tax of 50% on all profits made in the quarter. The tax has to be paid annually at the beginning of each year and it is automatically deducted from cash reserves.

Cash Flow

Your cash position is the cash shown in the latest Balance Sheet. This may be supplemented by new loans and any cash received from the sale of machines.

It is crucial to have a tight control on the cash available in the quarter and on the future trend of the company cash flows. As better explained in the following, the risk you run if you do not have control on cash flow is to experience an automatic resizing of your decisions in the quarter.

To help you better understand how cash flow is calculated, please observe the following terms of payment for expenditures and investments.

<i>Payments made in the quarter:</i>	<i>Payments due in the following quarter:</i>
Production costs Raw materials (Local supplies: 2/3 of the amount requested; Imported supplies: amount delivered in the quarter) Leased machines Salaries Rental of outlets Vehicles Promotions	Hi-Tech AT Purchase of new machines Bought-in finished goods Customer service Advertising Environmental expenditures Training costs

The cash available is a consequence of:

- + Cash from the end of the previous quarter (reported in the balance sheet)
- Tax payment (due at the beginning of the year)
- Payment in the quarter for existing units and employees (rental of outlets, leased rates, salaries)
- + Disinvestments in the quarter (reductions in the number of employees).
- + New loans
- Repaid loans.

Notes:

Please, remember that the cash realised from the sale of machines is not received until the beginning of the quarter following the sale.

If at any time the cash needed exceeds the existing availability of cash, the system will reduce proportionally every expenditure and investment made.

The cash is monitored constantly in the *Check on-line* area (see below for a description), where the system compares the cash available to the cash needed.



CHIEF EXECUTIVE

PERFORMANCE GRAPHS

There are three Financial Reports which monitor the full historical trends:

- the Overall Cumulative Profit;
- the Share Value;
- the Retail Market Share.

DASHBOARD

In addition, there are some key ratios which are calculated in the Dashboard.

Finance KPI

Some of these indicators must be used only at the end of the year (ROE and ROCE can be calculated correctly only on the annual Balance Statement).

Process KPI

These indicators display your commercial and operative evolution.

Customer KPI

They show the capacity to serve the customers in both retail and wholesale markets.

Innovation KPI

They reflect the quality of your innovation on people and products, namely the skill level of your human resources and the technology level of your processes.

DECISIONS

The CEO cannot alter the quarterly decisions, but can monitor all the input decisions for the present quarter and for the full history of the company. Hence, in this area all the decisions you made are displayed, but you cannot change them.



Check on-line (What-if)

Cash needed

The check on-line area has been developed to support the immediate control of the cash availability and the use of the production capacity.

The cash on line shows the cash available after Commitments (current expenditures due to be paid for the existing resources). The cash available must be positive in order to have the guarantee that the decisions of the quarter are confirmed.

The cash available after commitments should exceed the cash needed which represents the amount of cash that your company needs to match with the input decisions inserted in the functional action forms.

Only the decisions with a payment in the quarter are calculated in the cash needed.

In case the cash needed is higher than the cash available, a proportional reduction of the input decisions will occur. The system displays the percentage of decisions that will be processed. The percentage displayed should be 100% to confirm that all decisions will be processed.

If the cash available after commitments is below zero, you should immediately contact the administrator of the challenge by e-mail.

Production on-line

The check on-line of the production compares the production capacity to the amount of hours required by the planned production. If the hours required by the production planned are higher than the production capacity, the planned production will be automatically reduced by the system.

To increase immediately the production capacity, you can lease new machines if you have enough cash available.

Remember that the cash available must be always checked before checking the production on-line, as production depends on cash availability.



Reports

The Management Report

Once the deadline for inserting your decisions is over, your decisions together with your competitors' ones will be processed and a report of your performance will be updated. This report will provide you with the following information.

1. Total market statistics for the quarter showing demand; sales; prices; market shares; expenditures on AT, environmental issues, promotions, advertising and customer service; and average market quality levels.
2. Details on your company performance in terms of sales, revenues and competitive position as to the production quality, environmental issues, advertising and customer service.
3. Details on your own current production, your transport capacity, stock of finished goods, raw materials stock and deliveries pending.

Please, note that the quality of end stock shown in this report represents the average quality of the total available goods to the retail market in the quarter. These goods are of varying qualities and are a mix of beginning stock, present production minus any sales to wholesalers, and bought-in finished goods, if purchased.

4. Details on your retailing outlets, your supervisory staff and sales people, and their level of effectiveness.

Financial Report

Financial performance in the form of P&L and Balance Sheet, together with some Finance KPI and your borrowing limit.

The Flow-chart

This report displays the relationships between decisions and sales results. It is mapped a step-by-step path which highlights the impact of your decisions compared to the market trends and the perception of the wholesalers (in the upper part of the chart) and the retail customers (in the lower part of the chart).



The Environmental News

All information is quarterly updated in relation to:

- *Political news*: Tax, bank rates, etc.;
- *Economic market trend*: demand forecasts and comparison with the recent past; wholesalers' demand;
- *Goods news*, where the quotation of current supplies is listed;
- *Business news*, displaying the cost of labour and salaries and rental;
- Customer perception of the key factors of success.

This information set is crucial to understand market trends (e.g., demand level; demand sensitivity to price, quality, etc.) and to monitor the evolution of the costs of the resources to be used in the current period of the decisions.



Assistants' comments

In every functional area you will find comments and indicators related to the performance achieved in the last quarter.

- *Marketing*: Jeff will comment on your revenues position, sales volumes, and the customer matrix where your position is displayed for the Perceived value and Perceived price.
- *Distribution*: Alison will comment on your retailing shop performance.
- *Operation*: David will condense his comments on the production levels and costs.
- *Finance*: Rhonda will give you an overview of the financial and economic trend with data and indicators.

Remember that not all the comments on the previous quarter will be available when a new quarter begins. Hence, if you wish to keep track of this information for future quarters, please remember to take screenshots.



Decisions restrictions

The decisions could be limited or modified by the system before or during the period calculation.

Some decision can be modified for example due to a lack of cash or production capacity or raw materials. There is a check-on-line that suggests in real time when the limit is exceeded but the potential modification is applied only during the processing of results.

Some other decision can be stopped in real time; in this case a message will alert that the decision cannot be confirmed and that it is necessary to modify the decision to enter within the limits of the simulation.

Which are these limitations?

- In Marketing, it is not possible to set a price or a quantity to the wholesalers higher than the amount stated in the Environmental news; while terms of payments must be between 0 and 3.
- None of the retail price cannot be input for a value higher than 2.000 euro.
- Advertising expenditure cannot exceed 10.000.000 euro.
- In Distribution, it is not possible to open more than 100 shops in a quarter nor buy more than 100 new vehicles, to spend more than 2.000.000 in training, 5.000.000 in promotions per single item, 5.000.000 in customer service.
- In Production, it is not possible to order more than 500 new leased or owned machines per type of contract, and spend more than 5.000.000 in Automation Technology
- In Finance, 2.000.000 euro is the limit for the environmental expenditures.