



Cesim OnService – Services management simulation

Introduction

<http://onservice.cesim.com>

on | service®

Cesim OnService simulation is designed to give students practical experience in managing a service business. Cesim OnService includes key success factors that are relevant to any service business in small and medium size enterprise (SME) environment.

Teams' goal is to manage the operating, market, and financial performance of a service business in competitive markets with seasonal variations in demand and economic conditions.

Human resources management, capacity management, investments, service quality, pricing, and marketing are the key decision-making areas in the simulation. Teams will also be faced with strategic decisions, such as expanding their operations to a new market area.

Help the students to develop a holistic view to service business operations including, marketing, sales, human resources, capacity management, investments, and service quality.

Enhance fact-based analytical decision-making and crystallise the financial implications of business decisions by linking the decisions to cash flows and bottom line performance

Help students to develop market-driven decision-making practices in a services environment

Give students practical experiences in team-work and problem solving

Excite competitive spirits in a dynamically evolving marketplace

You and your team will take over as the new management team of **Hotel le Bonheur**, a business entity providing hospitality services. Its roots date back to the early 20th century. Hotel le Bonheur has a colourful history and more information is available in the Case Description.

You will develop and execute strategies for your virtual hotel and your success is measured by both operational and financial key indicators, including occupancy rates, average room rates, profit per room, customer satisfaction, market shares, employee satisfaction, profit per employee, net profit, return on capital and earnings per share.

The main objective for the teams is to maximise shareholder value. This is measured by **the cumulative total return to the shareholders**, which combines share price development and dividends paid to show the total return to the shareholders. Detailed explanation about the indicator is presented on the next slide.

Share price is the company's market value divided by the number of shares. In this case the number of shares is fixed and you can not issue/buyback shares. The company's market value is calculated using the discounted cash flow method. In order to maximise the market value of the company the team should build their business on a simple notion:

sustainable, profitable growth

Cumulative Total Shareholder Return is the average annualised percentage return that a company delivers to its shareholders during the whole simulation.

It takes into account the changes in the company's share price and cumulative dividend payments.

Example;

1. No dividends. Let's say that the share price in the beginning of the game is 10EUR, and after one round (=year) the share price is 12EUR. This gives 20% return to shareholders for that given year.
2. With dividends. In addition to the above, the company pays a 1EUR dividend per share during the round. Total return is $(12+1)/10 = 30\%$

In the previous we assumed that the change happened over one round. The same principle applies for multiple rounds. In that case we add cumulative dividends to the share price and annualise the return. For example, 30% cumulative return over three years would be 9% annualised return on average.

Each simulation market consists of 3-12 teams, with 2-5 members in each. The number of parallel simulation markets is not limited, making it possible to utilise the simulation for any number of students in the class.

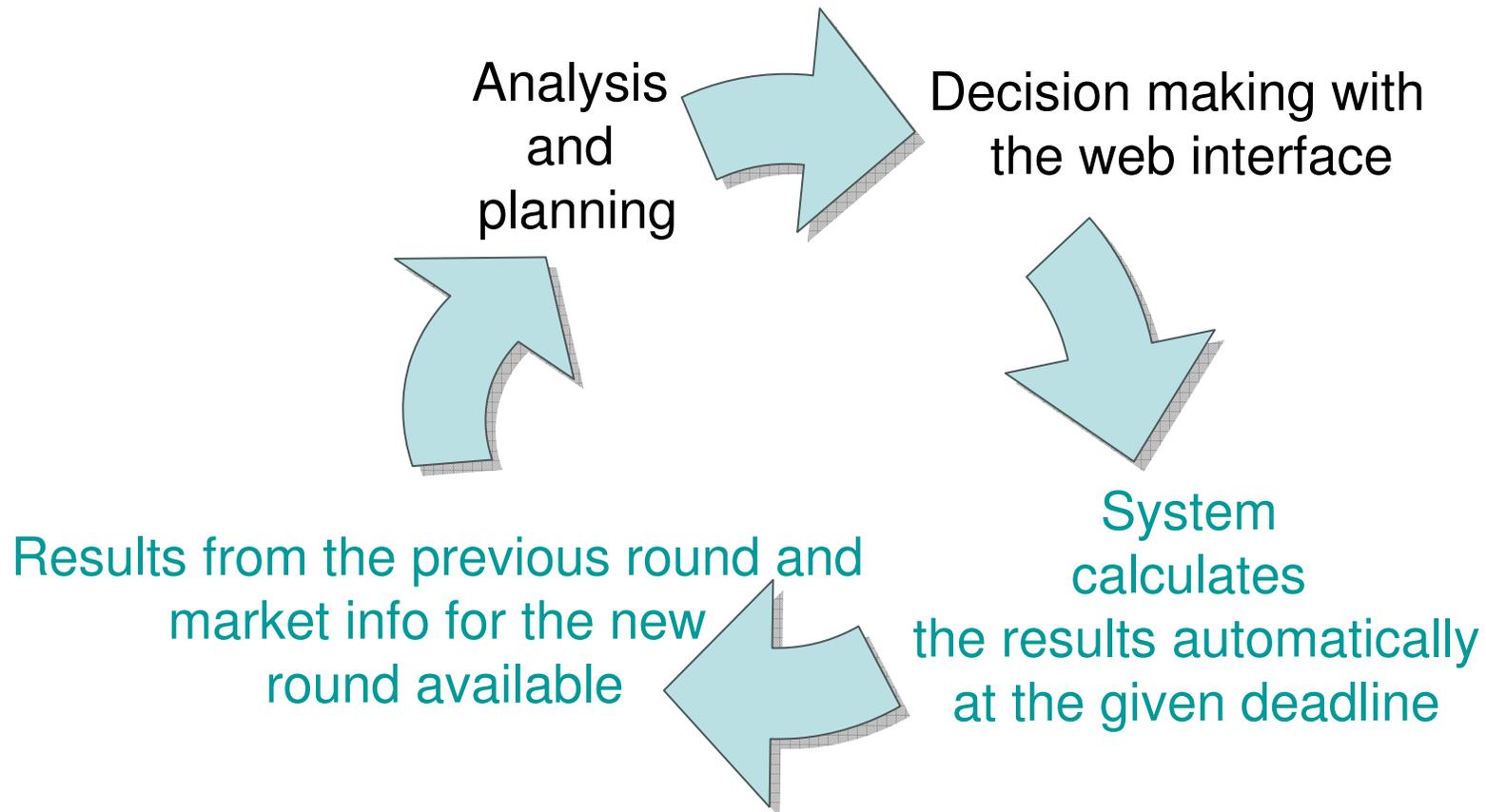
All teams are starting from exactly the same positions, with similar market shares and profits. Equally, teams will be faced with the same market conditions during the simulation.

It is notable that **teams compete against other teams in their own market, not against a computer**. Each team's decisions influence the other teams' results and the market development overall.

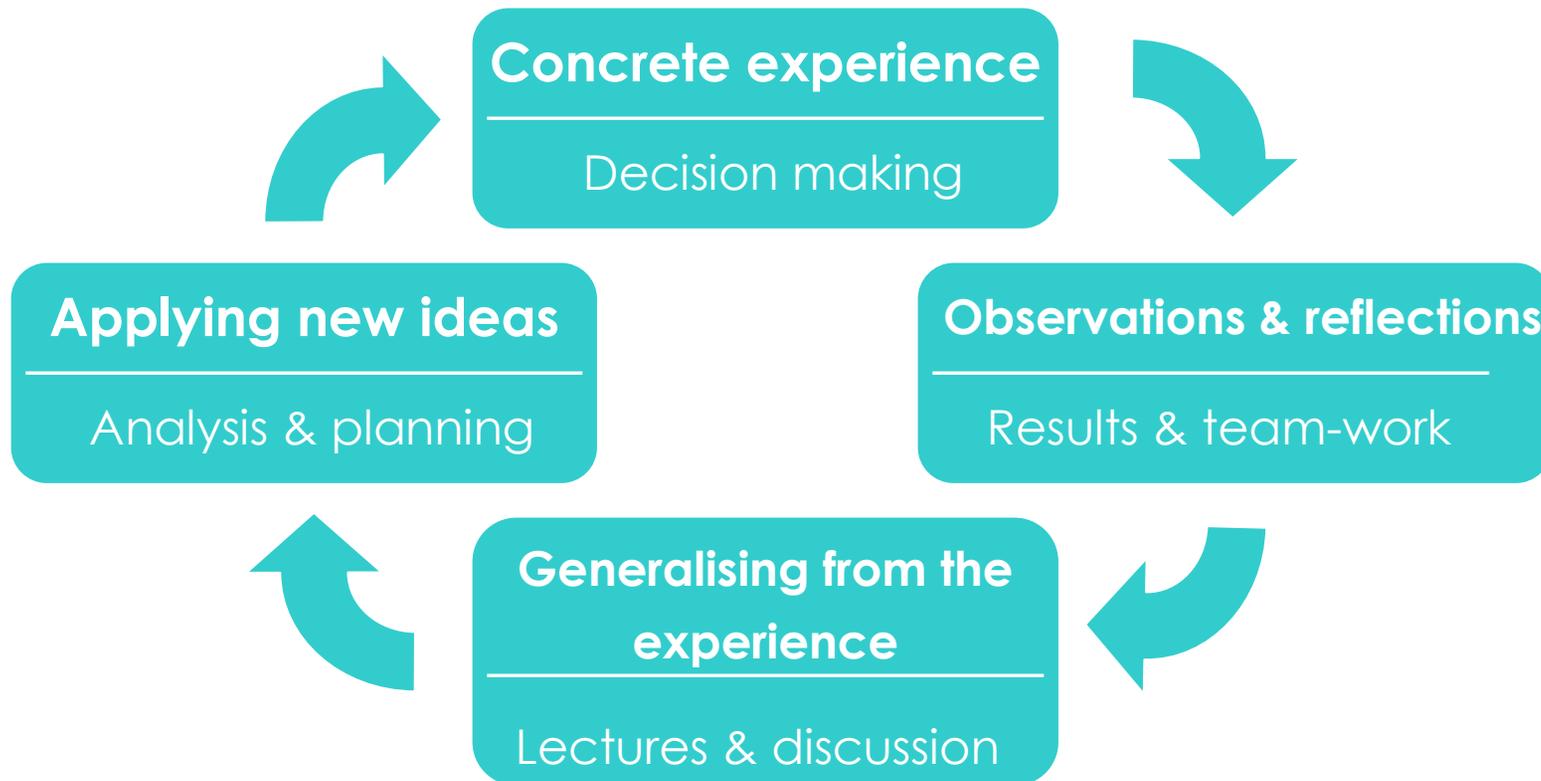
The simulation is completely web-based. There is no need to install any separate applications and the simulation can be accessed from any computer that has the internet connection.

The simulation platform allows team-members to work virtually if they wish. Each team-member has her/his own account that enables them to make decisions and scenarios on their own and later combine the outcomes with the other team-members on the [decision checklist] -page.

The platform also includes a communications forum that can be used to communicate within teams and between all teams in one market.



Note that it is not possible to modify your decisions after the round deadline. If you have not saved decisions for a round, the system will automatically use your previous round's inputs.



The simulation platform includes the following pages:

[Home] - General info page with deadlines

[Decisions] - All decisions are made under 'Decisions'

[Results] - Results become available in this area after each deadline

[Schedule] - Simulation schedule is available on this page

[Teams] - Teams and team-members in your market can be viewed here

[Communications] - Access to discussion forums for team and market

[Readings] - Access to Decision-making instructions and case description

Decision making is done separately for two seasons; summer and winter according to the seasonality in Hotel le Bonheur's business. Both seasons are considered to be 6 months long.

In the beginning teams have operations in the domestic market only. They can expand their operations to the international markets during the game if they wish.

A new market outlook containing information about the market development becomes available as soon as the previous round has passed.

Before starting the first round of decisions, teams are strongly advised to read the manual and case description.

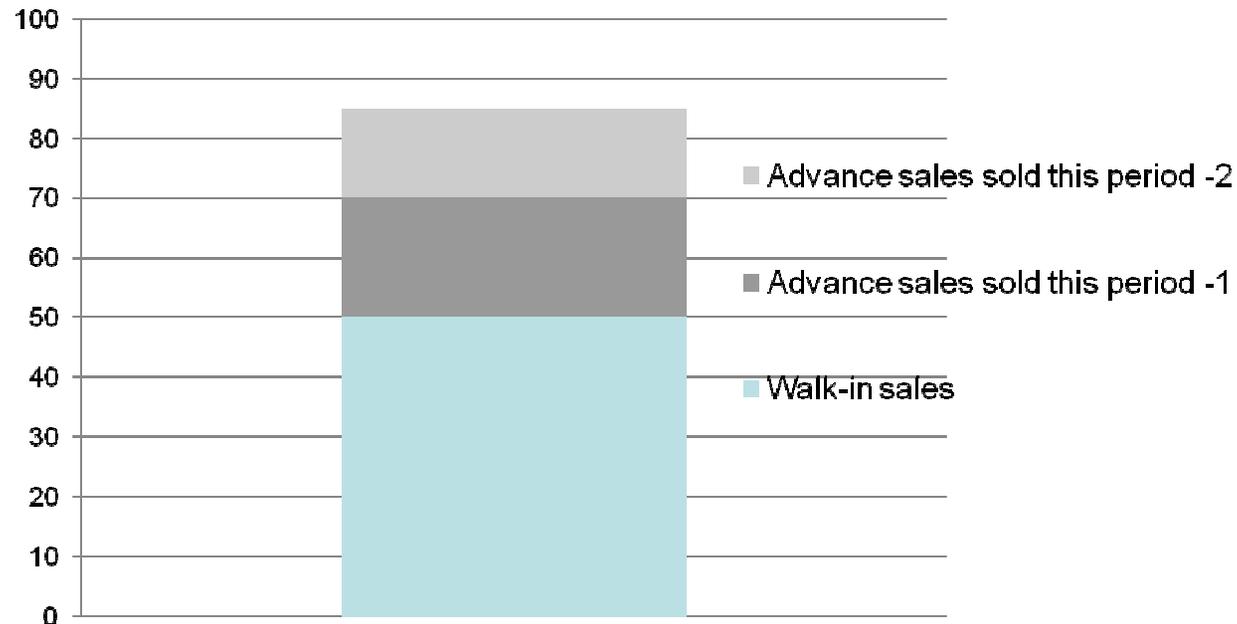
Remember to save your decisions on [decision checklist] page before deadline.

Sales consists of wholesale and retail sales. Wholesale customers are travel agencies and internet booking agencies to which teams sell capacity one or two periods in advance. Retail sales are 'walk-in' sales, and occur during during the current period.

As the goal is to maximise the capacity utilisation at the highest possible rates, a good balance between the advance and walk-in sales needs to be created.

Wholesale customers are willing to buy almost any number of rooms in advance, but they decide the price. The more rooms teams try to sell, the lower the price the wholesalers will offer. Retail customer volume adjusts according to the competitiveness of your offering.

Wholesale and retail customer decision-making is presented in more detail on the following slides.



For any given period, the capacity utilisation consists of:

- walk-in sales
- advance sales that were done last period
- advance sales that were done two rounds ago

Teams decide the amount of nights that they wish to sell in advance for the next period (+1) and the period after next (+2).

This influences the price that your customers are willing to pay (sell more=lower price, sell less = higher price). In addition, the room rate is influenced by:

- Marketing efforts
- Personnel sufficiency (quality)
- Personnel quality (quality)
- Condition of facilities (quality)
- Credit term

Demand for period +1 is also affected by the last period's advance sales made by all teams for period +2. That is, if all teams made large advance sales last period for period+2, demand this period for period+1 advance sales is less.

For the ongoing period you give a 'walk-in' room rate at which hotel customers are able to book rooms. Room rate together with the following factors will determine the amount of nights sold.

- Marketing efforts
- Personnel sufficiency (quality)
- Personnel quality (quality)
- Condition of facilities (quality)

Note: The amount of nights sold is uncertain because it depends on competitors' decisions and actions.

Decisions regarding facilities will influence capacity and overall service quality.

Each room has a capacity of 180 nights for a half year period. Investments can be made to add new room capacity and renovate existing rooms. In both cases it takes one period before the investment is ready and operational.

Investments into new room capacity are made in batches of 5 rooms. Investing into one batch will thus increase the hotel capacity by 900 nights per period.

Renovation increases the quality of the hotel. Condition of facilities is indicated by a number, where 100 means the condition of newly built or completely renovated. Condition of facilities decreases over time due to normal wear and tear.

Skillful management of the personnel resources is a prerequisite for success in this simulation game. The goal is to achieve efficiency and flexibility at the same time.

There are permanent and temporary personnel resources available. Permanent employees tend to be more effective but less flexible, having costs associated to layoffs and recruiting. Temporary personnel are flexible regarding hiring and laying-off, but less experienced and effective. In addition, a high proportion of temporary employees in the work-force will result in lower service quality.

Teams compete for the permanent employees and attractiveness is influenced by salary level, personnel training, personnel stress level and the company's success overall. Stress level is influenced by the amount of personnel relative to the volume of operations.

Both operating costs and administrative costs can be influenced by cost saving efforts, which aim for leaner and more efficient processes.

Cost-saving projects can be decided on the operations page under title 'cost-saving efforts' . The upper cell influences direct operating costs and lower cell influences administrative costs.

Teams can name cost saving projects as they wish.

Cost saving efforts, €			
Direct efficiency		1 200	n/a 0
Admin efficiency		300	n/a 0

Personnel competence is a factor that influences the required amount of personnel and personnel quality.

Personnel quality influences your service's attractiveness compared to the competing teams. In addition to personnel competence, personnel quality is also influenced by the ratio of temporary to permanent employees. A higher proportion of permanent employees yields higher quality.

The following factors influence personnel competence:

- New/old personnel ratio (higher proportion of old employees is better)
- Training budgets for the whole duration of the game
- Salaries for new personnel (better staff require higher salaries)

Teams do not have any international operations in the beginning of the game, but are able start their international operations at any point during the game.

Capacity in the international markets can be built or leased.

Advance sales to international markets can be started at the same time as the decision to build capacity. Advance sales cannot be made without a decision on capacity.

Customers from domestic and international markets have differing preferences. The case description has more information about these.

Financing decisions are typically the last set of decisions that are made. These include:

- Increases (+) and decreases (-) in long-term loans
- Credit term (remember that this influences wholesale demand)
- Dividend payments

Cash at the end of the year can not fall below minimum requirement (200t€). If financing is not sufficient to meet this requirement, the system will automatically take emergency funding in the form of short-term loans to restore the minimum cash requirement. Interest rate for the emergency funding is higher than it is for long-term loans so falling below the minimum requirement should be avoided .

Short-term loans are automatically paid off when they are not needed any more.

Key financial and operational figures are presented on the next slides

Return on capital employed, ROCE % (annual) = EBIT / (Total assets – Current liabilities)

ROCE (Return on capital employed) is a ratio that indicates the efficiency and profitability of a company's capital investments. Here, **EBIT** (Earnings before Interest and Taxes) equals turnover minus costs and expenses during year, whereas **current liabilities** are comprised of short term debts and payables that are due within a year.

Gross profit ratio -% (6 months) = Gross profit / Net sales

Net profit ratio -% (6 months) = Profit / Net sales

Gearing, % = (Long term loans + Short term loans – Cash and cash equivalents) / Total equity

Net debt to equity (gearing) is a ratio of a company's level of long-term debt in comparison to its equity capital. Gearing explains how a company finances its operations.

Asset turnover (annual) = Total revenue / Total assets

This ratio describes the amount of sales that are generated from each euro of assets.

Company-specific prime rate -% (6 months) determines the interest rate for loans.

Dividend payout ratio -% (6 months) = Dividend payment / Profit

EPS (Earnings per share), € (6 months) = Profit / Number of shares outstanding

P/E (annual) = Market value per share / EPS

P/E indicates how many years it takes with the current level of earnings to pay the price of one share.

$$\text{Hotel occupancy \%} = \frac{\text{Nights sold}}{\text{Hotel capacity in nights}}$$

$$\text{Average room rates, €} = \frac{\text{Total revenue, €}}{\text{Number of nights sold}}$$

$$\text{Gross profit per room, €} = \frac{\text{Gross profit, €}}{\text{Domestic room capacity} + \text{international room capacity}}$$

$$\text{Gross profit per room, €} = \frac{\text{Net profit, €}}{\text{Domestic room capacity} + \text{international room capacity}}$$

Financial statements consist of a consolidated income statement and balance sheet for domestic and international operations.

Current period figures update continuously as decisions are made.

Actualised figures for the previous matching period is shown in the right hand column and percentual change in the middle. Note that the comparison is always winter-winter and summer-summer. Never winter-summer and summer-winter.

FINANCIAL STATEMENTS			
INCOME STATEMENT, €			
REVENUE	This summer	Δ %	Last summer
Domestic	939 476	20.3	781 062
International	549 157	n/a	0
Total revenue	1 488 633	90.6	781 062
Personnel expenses and direct cost			
Permanent	54 000	-25.0	72 000
Temporary	17 389	-47.0	32 782
Direct cost	94 227	70.9	55 139
GROSS PROFIT	1 323 016	113.0	621 141

On the decision checklist page all team-members' decisions can be seen side by side. By pressing 'save' a team-member's decisions is moved to the team-decision column. At the deadline, the system reads the decisions from the team-decision column and calculates results for the round.

Team-decisions can be edited directly by pressing 'go' in the team-column. In addition, any team-member can access the other team-members' decision area by pressing 'go' in the respective column.

DECISION CHECKLIST		
	abc team	Gary Player
Save these decisions as your team's decisions		Save
Go to another decision area	Go	Go
Sales	Expand all	Collapse all
Prices, €		
Domestic		
Today	50.00	110.00
+1	97.47	54.71
+2	101.39	73.22

Note: Previous round decisions will be used if there are no saved decisions for the round.

After each round the system generates reports that depict the results of each team in a particular market.

Results consist of:

- Market report for domestic and international markets
- Operations report for domestic and international markets
- Income statement for the period and for the rolling year
- Balance sheet for the period
- Cash flow and key figures for the period

Results provide useful information about a team's own sales, operations, and finances. In addition, results can be used to benchmark performance with the competing teams in the same market.

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