



TOPSIM®
LEARNING BUSINESS BY DOING BUSINESS



TOPSIM - Hospital Management

The commercial optimization of Health Care services for non-profit institutions



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(1) Germany's Health Care System



Facts & Figures

- 2,200 hospitals
- Capacity of 500,000 beds
- about 140,000 physicians
- approx. 400,000 nurses (other workforce 3.9 mil.)
- 17 mil. patients

- Annual health care expenditure amounts approx. 245 billion €

- About 15% of the hospitals are in a critical financial situation (and about to get insolvent)





Health Care Reform

The 2007 Health care reform includes

- a Health care insurance for all
- a reform of care structures and health insurance fund reorganisation
- a reform of the financing structure
- a reform of the private health insurance

The financing of the statutory health insurance system was changed on January 1st, 2009. With the introduction of a health fund, all contributors will be paying the same contribution rate.



Problems of the Health Care Industry

- Inputs, Infrastructure and Personnel become more and more expensive
- Surviving on the market is only possible when expanding
- Expanding requires expensive investments
- Hospitals are not allowed to budget investments and depreciation to their pricing that is billed to insurers



(2) BryantU Health Care Challenge



Lifespan

- Lifespan, Rhode Island's first health system, was founded in 1994 and includes five partner hospitals
- As not-for-profit organization, Lifespan improves the health status of the people it serves in Rhode Island and New England.

Target Audience for the Health Care Challenge

- Future heads of health care departments at Lifespan hospitals





Simulation Concept

- A hospital to be run with \$ 50 Mil. revenue, \$ 75 Mil. fixed assets, 800 employees, 200 physicians and 80 licensed beds
- Participants in the role of managers, making operational and strategic decisions
- The hospital will have both an established history and defined mission
- Participants will gain tangible knowledge and experience by managing a virtual health care company



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Questions Raised by the Simulation

- What are an health care company's value adding activities?
- How can an health care company's customer orientation and service offerings be varied?
- What external factors influence an health care company?
- How do short and long term decisions effect an health care company?
- How does competition function in the market?
- What costs and value-drivers are present?
- ...

Economic forecast

- ↑ GDP 2.3%
- ↑ investments 2.5%
- ↑ Cost living 2%
- ↑ Interest rates 1%

φ lay-offs
↓ wk hours to 38(h)
ex: stable wages

Costs	Infrastructure	Training
IP \$ 650	no 14 mil capacity 32000	7 efficiency
OP \$ 340	input 7000/yr	RNs \$ 2,000/EN
OR \$ 11,000	deprec. 7000/yr	

Capacity / EN	Med Supplies	Fixed
P 250 245	+ \$ / unit	1 x fee \$ 100,000
P 100 390		per yr

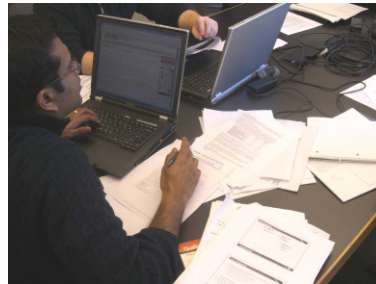
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Participants Decisions

- **Purchasing**
 - Selection of a suppliers, conditions of purchase and payment (optional decision)
- **Service**
 - Investments in medical infrastructure, number of physicians and nurses, training
- **Sales**
 - Pricing by category (inpatient, outpatient, OR/ICU), service
- **Innovation**
 - Projects (e.g. process improvement, etc.)



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Simulation Results

- Participant's results will be communicated in the form of an executive summary and financial reports
- Sales overview: number of patients (inpatient, outpatient and OR/ICU)
- HR report
- Operations and investments
- Profit / Loss and Balance sheet
- Customer satisfaction and success rates
- Market research: industry comparisons



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Overview

Revenue:	€ 50 Mil.
HR Costs:	€ 30.6 Mil.
Employees:	140 Administration 160 Medical-technical 240 Nurses 50 Physicians
Services:	Inpatient care, Outpatient care, OR/ICU
Net Income	€ 129,000 (nonprofit)
Equity	€ 40 Mil.
Liabilities	€ 32 Mil.



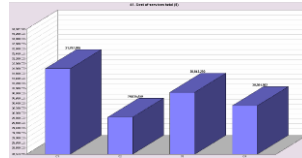


Cost Structure

- **HR-cost**

- Nurses 34 %
- Physicans 26 %
- Technical care 23 %
- Administration 17 %

60 %



- **Non HR-cost**

- Medical supplies 48 %
- Operation supply 21 %
- Repair and maint. 12 %
- Food 5 %
- Other ... 14 %

40 %



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