



BUSINESS SIMULATIONS

by EDUardo



Integrating Business Simulations into Operations Management Education

**A Case Study from Corvinus University of
Budapest**

Executive Summary

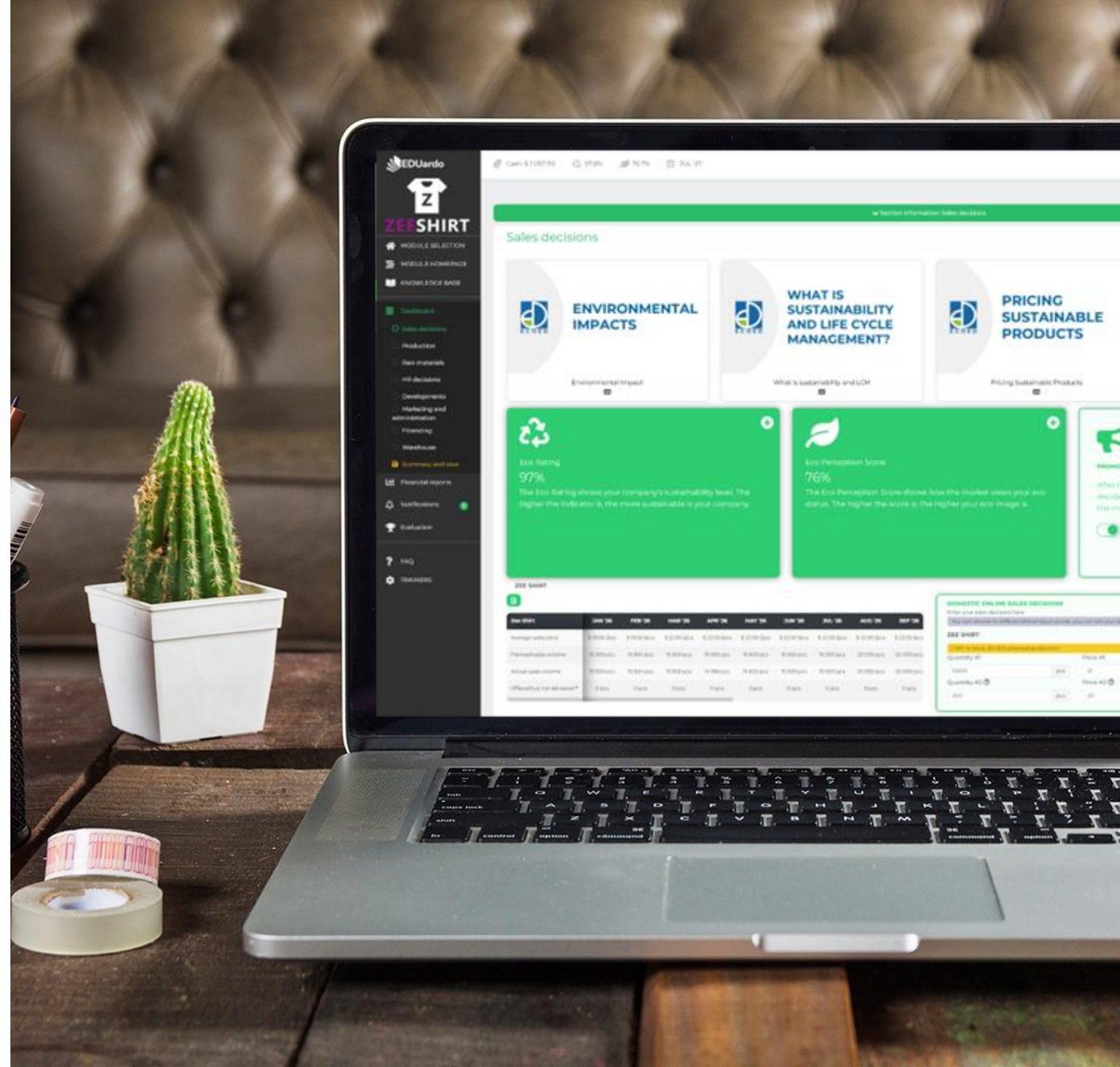
Corvinus University of Budapest, a leading institution in business education, has successfully integrated the EDUardo business simulation platform into its Operations Management course, providing students with practical, decision-based learning experiences.

The course was delivered by a team of six university lecturers.

The course employed EDUardo's Sustainability Module (co-developed by EDUardo and EcoEd) to enhance theoretical knowledge with real-world challenges.

This case study outlines how the simulation was embedded into the curriculum, the educational approach, the outcomes observed, and the student feedback gathered during the program.

The results demonstrate the value of simulations in improving student engagement, understanding of complex processes, and strategic thinking.



Background & Context

At Corvinus University, the Operations Management course forms part of the fourth-semester curriculum within the Business Management BSc program.

As students encounter operations management for the first time, the course introduces them to essential concepts of process-oriented thinking, where inputs are transformed into outputs through resource utilization and transformation mechanisms.

The curriculum covers a wide range of topics, including operations design and performance, layout decisions, supply chain management, capacity management, inventory control, quality management, and lean management.

To complement these theoretical foundations, the lecturers introduced the EDUardo Sustainability Simulation Module, under the coordination of **Prof. Zsolt MATYUSZ**.

Zsolt MATYUSZ, Ph.D Habil.

Habil. Associate professor
Institute of Operations and Decision Sciences,
Department of Supply Chain Management
Program director of MSc in Supply Chain Management

Corvinus University of Budapest



The primary goals were to:

- Help students experience the complexities of operations management decisions in a safe, controlled environment.
- Allow students to face real-world dilemmas, trade-offs, and resource allocation challenges.
- Integrate sustainability considerations into operations thinking, reflecting growing industry relevance.

While the simulation schedule was not fully synchronized with the textbook chapters, it served as an "eye-opener" early in the course, exposing students to concepts they would explore in greater depth later in the semester.

Implementation & Experience

The EDUardo simulation was embedded directly into the course schedule, forming a significant component of the students' overall evaluation. The grading breakdown included:

- Quizzes and final exam: 50%
- EDUardo simulation: 30%
- Class participation and activities: 20%

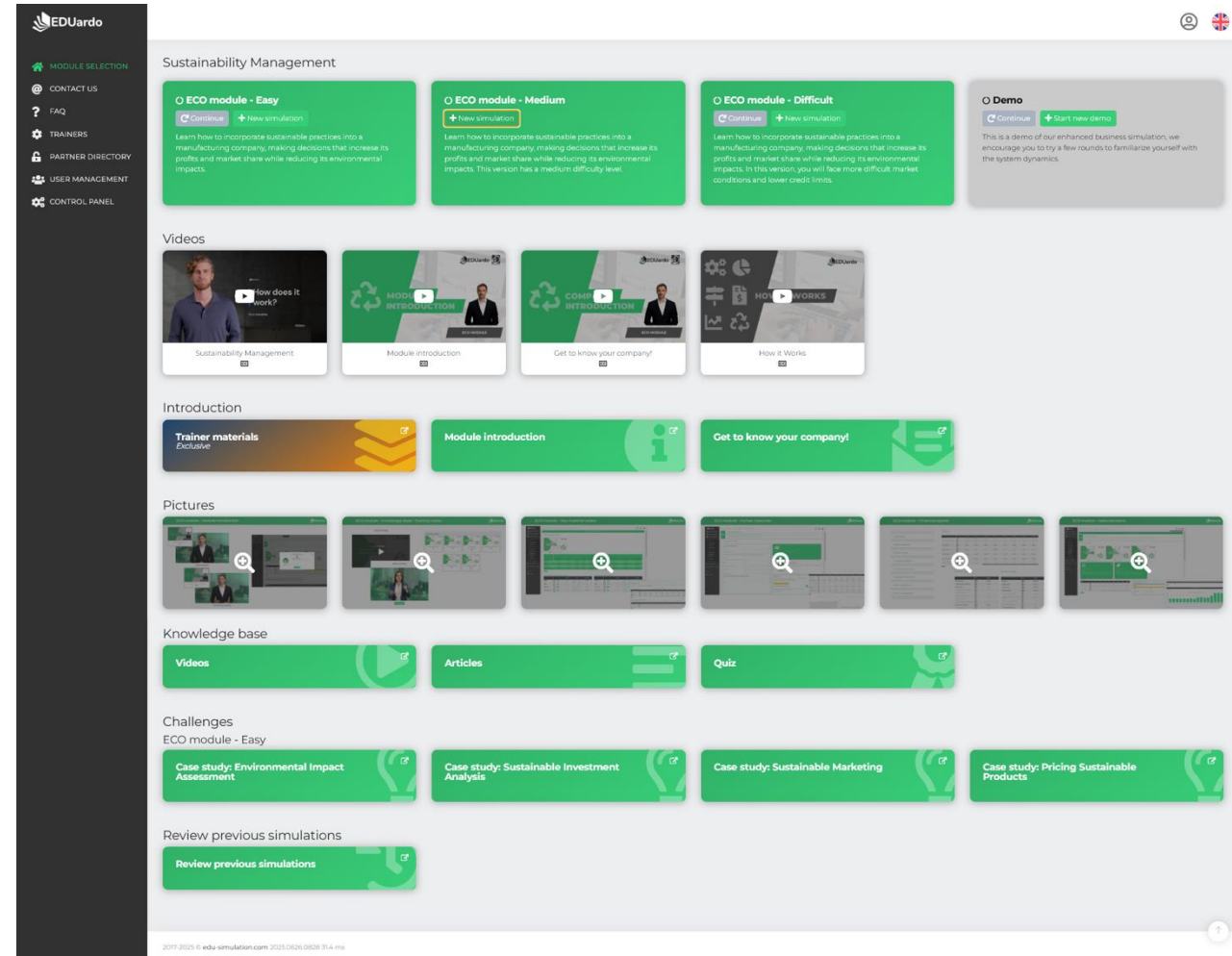
Phase 1: Individual Practice

Each student received individual access to the simulation platform. The module consisted of three sub-modules reflecting different difficulty levels: easy, medium, and difficult.

During the practice period, students explored the simulation individually, using their own access credentials to complete the easy and medium levels.

These practice runs allowed students to familiarize themselves with the interface, key decisions, and overall logic of the simulation.

Joint classroom sessions were also conducted to provide live demonstrations, Q&A opportunities, and additional support.



Phase 2: Main Stage - Team Collaboration

At the main stage of the course, students were asked to form teams of three. Each team collaborated to develop a strategic approach for the simulation, which now used the difficult version of the module. Teams accessed the simulation using one selected team member's account for the live sessions.

Prior to starting the live rounds, teams submitted a detailed strategic plan outlining their objectives, chosen sustainability focus, and intended decisions. They were allowed to run the live simulation up to a maximum of two times. The better result of the two attempts was used for evaluation.

Teachers were able to monitor students' activities both through a dedicated team report and by viewing individual runs, allowing for effective oversight and support throughout the process.

To accommodate diverse learning paths, students were allowed to choose from multiple strategic directions:

- Full sustainability focus (green strategy)
- Semi-sustainability (balanced approach)
- Conventional high-volume, low-sustainability mass market strategy
- Optional inclusion of "greenwashing" elements as a strategic choice

In total, more than 180 students participated in the simulation. They were assigned to 6 seminar groups, coordinated by the university lecturers involved in the course delivery.

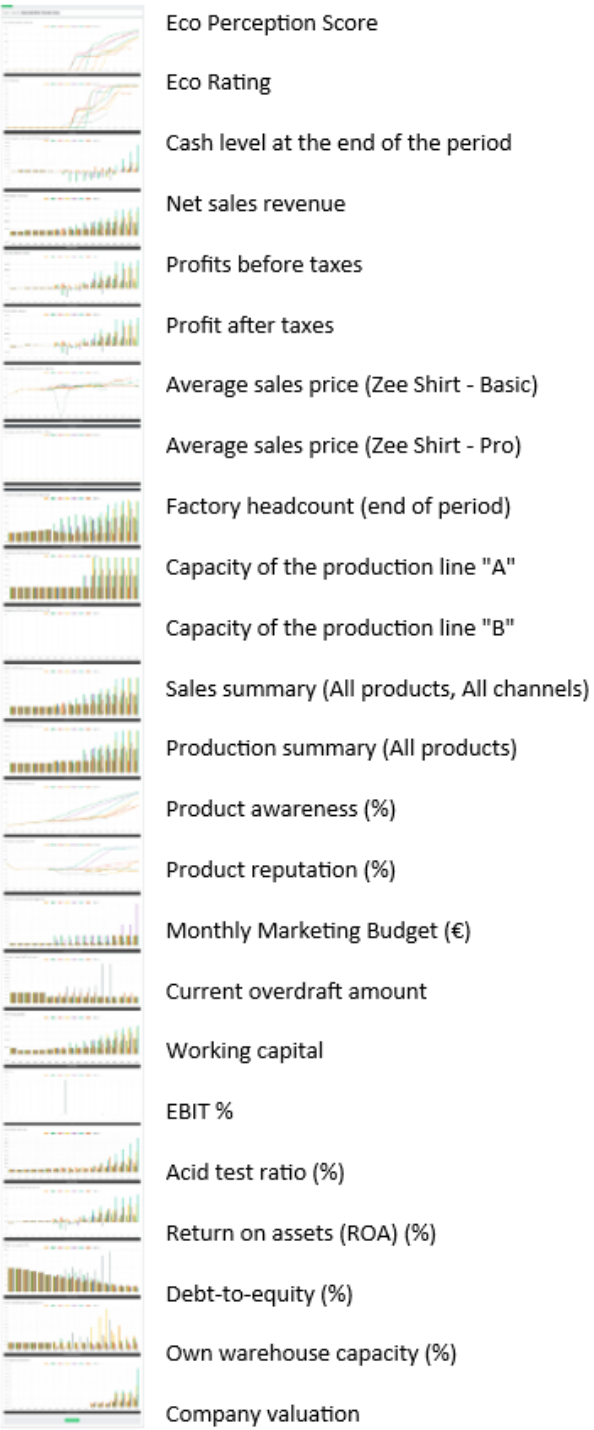
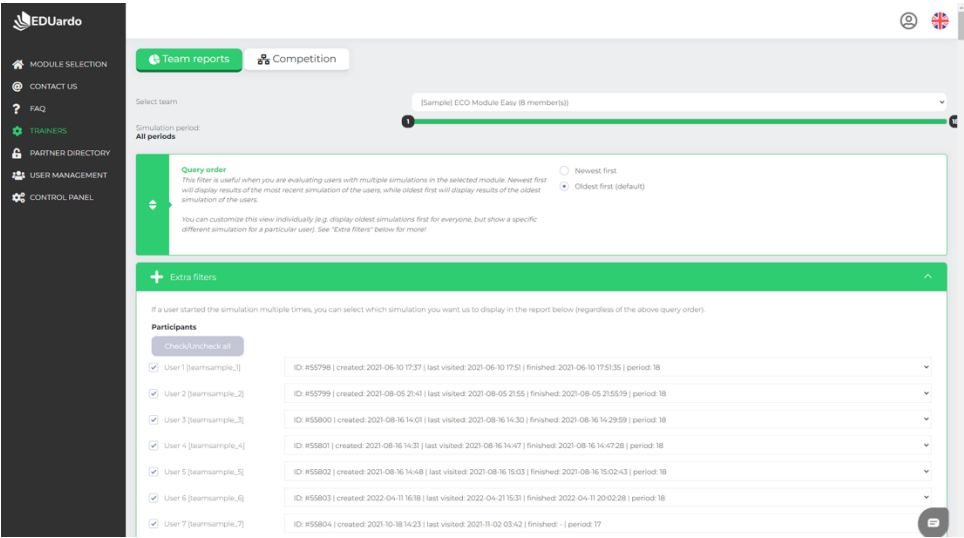
Within these seminar groups, students formed over 60 working teams, with each team consisting of 3 members collaborating throughout the simulation.

Phase 2: Main Stage - Team Collaboration (cont.)

The simulation platform supported flexibility, allowing both large cohort introductory sessions and detailed seminar-based discussions.

Instructors could manage up to 60+ groups simultaneously, significantly reducing administrative complexity compared to many competitor platforms that require strict cohort segmentation.

The faculty team, including both experienced and newly involved instructors, coordinated closely, using common templates for strategy submissions and evaluation matrices to ensure consistent grading standards.



Learning process



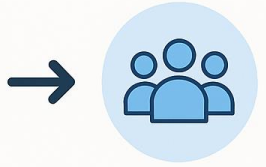
Introduction and Training

Students receive introductory materials and demonstrations of the simulation platform



Practice

Students explore the simulation individually at multiple difficulty levels



Live Simulation

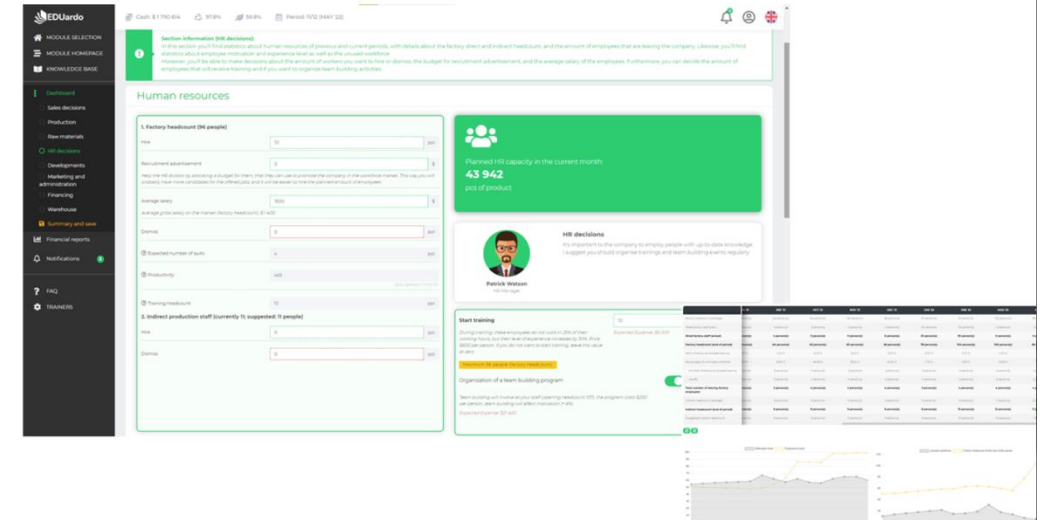
Students collaborate in teams to run the simulation at full difficulty



Reflection and Analysis

Students reflect on their strategy and the outcomes of the simulation

ECO module – Human resources



ECO module – Financial reports



Cash flow

Balance sheet

Profit & Loss

Working capital

Financial overview

Liquidity indicators

Debt indicators

Return indicators

| | 11/18 | 01/19 | 01/19 | 01/19 | 01/19 | 01/19 | 01/19 | 01/19 | 01/19 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Revenue | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Operating cash flow | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Investment cash flow | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Financing cash flow | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Change in cash level | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |

Profit & Loss

Balance sheet

| | 11/18 | 01/19 | | 11/18 | 01/19 |
|--|--------|--------|--|--------|--------|
| Net sales revenue | 10,000 | 10,000 | Fixed assets | 10,000 | 10,000 |
| Own performance capitalized | 10,000 | 10,000 | Intangible assets | 10,000 | 10,000 |
| Other revenues | 10,000 | 10,000 | Tangible assets | 10,000 | 10,000 |
| Raw materials and consumables | 10,000 | 10,000 | Land and buildings | 10,000 | 10,000 |
| Contracted services | 10,000 | 10,000 | Plant and machinery, vehicles | 10,000 | 10,000 |
| Other services activities | 10,000 | 10,000 | Other equipment, fixtures and fittings, vehicles | 10,000 | 10,000 |
| Cost of goods sold | 10,000 | 10,000 | Assets in course of construction | 10,000 | 10,000 |
| Value of services sold (intermediates) | 10,000 | 10,000 | Tangible assets correction | 10,000 | 10,000 |
| Material type expenditures | 10,000 | 10,000 | Long-term financial assets | 10,000 | 10,000 |
| Wages and salaries | 10,000 | 10,000 | | | |

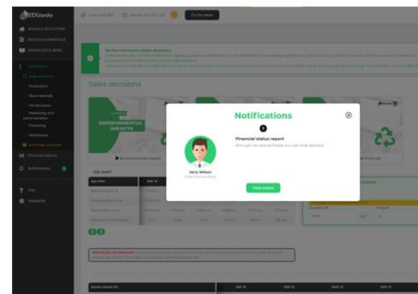
ECO module – Module introduction



Module introduction



Get to know your company!



Outcomes & Benefits

The simulation experience yielded highly positive feedback from both students and instructors:

- Increased Engagement: Students appreciated the practical, hands-on nature of the simulation, which helped them understand how theoretical concepts interconnect in real business scenarios.
- Enhanced Learning Retention: Through trial-and-error decision-making, students internalized lessons about capacity, inventory, resource allocation, pricing, and sustainability trade-offs.
- Diverse Strategic Thinking: Students successfully adopted varied strategic approaches, demonstrating both creative and analytical thinking.
- Clearer Expectation Management: The introduction of standardized templates for strategic plans and evaluation improved submission quality and made grading more efficient and transparent.
- Positive Student Feedback: Students expressed enthusiasm for the simulation's real-world relevance, with many requesting even more extensive use of simulations in future courses.

Professor MATYUSZ emphasized that the flexibility of EDUardo allowed him to focus grading not merely on absolute financial outcomes but on the coherence and execution of each team's declared strategy. This approach helped reduce student anxiety and supported more meaningful learning outcomes.

Outcomes & Benefits of the Simulation



Higher Engagement

Students actively participated and applied theoretical concepts



Better Knowledge Retention

Trial-and-error helped students deeply understand complex topics



Strategic Diversity

Teams adopted various realistic business strategies



Improved Submission Quality

Use of structured templates raised the quality of student reports



Reduced Student Anxiety

Evaluation focused on strategy execution rather than pure financial results

MARKET RESEARCH

| | 2016-16 | 2017-17 | 2018-18 | 2019-20 | 2020-21 |
|---|---------|---------|---------|---------|---------|
| Proportion of market captured from 0 new market | | | | | |
| Unsubscribed customer acquisition | 14.00% | 25.00% | 40.00% | 45.00% | 55.00% |
| Lead capture campaign | 14.00% | 14.00% | 14.00% | 14.00% | 14.00% |
| Lead capture campaign | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Customer to sales conversion in different segments | | | | | |
| Unsubscribed customer acquisition | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Lead capture campaign | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Unsubscribed customer acquisition | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

Sharon Thomas
 Marketing Manager

Sales and marketing organization decisions

How do you know when the budgeted budget is over? It's important to keep track of the budget and make sure you're not overspending. If you're not sure, you can always ask for help from your manager or a colleague.

Anthony Baker
 Marketing Manager

Set an organizational budget


How do you know when the budgeted budget is over? It's important to keep track of the budget and make sure you're not overspending. If you're not sure, you can always ask for help from your manager or a colleague.

PRODUCT REPUTATION (%)

PRODUCT AWARENESS (%)

MONTHLY MARKETING BUDGET (€)


MONTHLY MARKETING BUDGET (€)




Sharon Thomas
CFO (Chief Financial Officer)

Open Green Marketing

Hi, boss! As you know, there's an increasing customer segment that demands more sustainable products. They are being influenced by what they perceive as green through marketing. We can increase how green the customers perceive us by designing a budget for the "We are green" campaign in the marketing section.



Beginning of month AUG 25




Karen Rivera
Production Manager

Buy new machines

If we are serious about things, I suggest that we expand our production capacity by purchasing new machines, since we will be able to produce more products after the introduction of new machines, which would create a greater sales potential.

Beginning of month SEP 25




Lisa Phillips
Head of the Secretary

Project available: Eye Controller

A dose controller optimizes the dosage of drug needed for each patient by 40% but increases the usage of electricity by 8%. The client's requirement of the project is \$500,000.

Visit the Development tab for more information.

Beginning of month SEP 25



Lisa Phillips
Head of the Secretary

Project available: K Cutting Controller

A Cutting Controller uses water steam to produce each

Beginning of month SEP 25

Key Takeaways

The case of Corvinus University's Operations Management course highlights several best practices for successful simulation integration:

- Embedding simulations as a core, weighted component of course evaluation increases student commitment and seriousness.
- Providing structured preparation, practice rounds, and clear expectations sets students up for success.
- Allowing multiple strategic paths encourages creativity while reflecting real-world business variability.
- Scalable simulation platforms like EDUardo enable efficient management of large cohorts without compromising learning quality.
- Reflection assignments deepen student learning by reinforcing the connection between theory and practice.

Key Takeaways



Simulations are core to assessment

Students take simulations seriously when part of grading



Clear preparation boosts success

Structured practice helps students feel ready



Multiple strategies foster creativity

Students explore diverse realistic business decisions



Efficient management for large groups

Faculty can easily handle 60+ teams at once



Reflection strengthens learning

Post-simulation analysis reinforces understanding



Danilo Granato,
EcoEd

Working with EDUardo team is fantastic. They are incredibly talented; they implemented many features that seemed hard to us. Moreover, I loved the collaborative way of working. We shared and discussed ideas and reached a consensus which was much better than I originally thought.

The platform overall is groundbreaking for modern education. It encompasses all the characteristics for fast, yet profound learning.

