

Strategic Management Games – innovative teaching method for business education**The Teaching Notes for XCor game****Revised Version**

PART I. INTRODUCTION	
Name of the scenario	XCor
Authors of the game scenario	
Name and surname	Dorota Czyżewska, Ph.D.
E-mail address	d.czyzewska@ue.poznan.pl
Affiliation (institution)	Poznań University of Economics
Name and surname	Marlena Dzikowska, Ph.D.
E-mail address	marlena.dzikowska@ue.poznan.pl
Affiliation (institution)	Poznań University of Economics
PART II. GAME SCENARIO DESCRIPTION	
<p>In the year 2012 during the International Symposium for Personal and Commercial Spaceflight in New Mexico a company called XCor presented a prototype of an aeroplane - Lynx. Lynx flies at a speed of over 4,000 kmph. The first idea of its inventors was using Lynx for space tourist flights. Lynx was ferrying a pilot and passenger to space for a few minutes of microgravity and the ultimate view of the Earth. The tickets were sold for \$95,000 per person. At the beginning the commenters were very pessimistic about the success of the company, but as the time has shown, they were wrong. Although the price of the tickets was high, the interest was big enough to provide the capital needed for further development of XCor. Soon after these planes were used as incredibly fast space taxi, allowing to get from New York to Tokyo only within 90 minutes. Introduction of Lynx to commercial production has revolutionized travel industry. First the space taxis were used only to travel between continents. However, as the number of trained pilots increased, the space taxis started to be used to travel between the biggest metropolises around the globe.</p> <p>XCor story started with four private founders, who dreamt of spaceflight and realized that the only way for them to get to space, was to make it affordable for private citizens. XCor was founded in the year 1999. At the beginning they worked at their chief engineer's tiny hangar. XCor's area of operations has covered research, development, project management, production of safe, reliable, reusable launch vehicles, rocket engines and rocket propulsion systems. In the year 2012 the company employed over 20 highly-skilled, experienced and talented employees, who worked in 10,375 square foot hangar at the Mojave Air & Space Port in Mojave, California. The funding for research and development has come from commercial development programs, government research contracts and business angels.</p>	

Strategic Management Games – innovative teaching method for business education

The company became better known to the public after a Lynx trip was offered as a prize for one of the fans of the CBS sitcom The Big Bang Theory during the San Diego Comic-Con. This incredible trip was first offered on stage by former NASA astronaut Richard Searfoss to Big Bang co-star Simon Helberg, whose character traveled to space as a NASA astronaut. Surprisingly, he refused. After the success of Lynx the company became a leader in the commercial space transportation industry. Simon Helberg had to pay the full price for the trip four years after the famous offer was made and nowadays he owns the latest Lynx version.

Presently many of the biggest cities in the world have infrastructure allowing to take off and land with Lynx, while more and more private customers wish to be an owner of such a spacecraft. Two years ago XCor's patent for its invention lapsed, and the technology was released to the public. As a result some new competitors have entered the market. XCor still has some technological advantage over its rivals and recognized expertise.

Within the XCor game up to 5 virtual companies are set up competing in the aerospace market. Your main task is to set up a company whose products will meet consumer groups' expectations and to do business so as to gain a competitive advantage on the aerospace market. Virtual companies operate in 5 localizations: New York (headquarters), Lima, Paris, Hong Kong and Sydney and their key goal is to meet expectations of 3 consumer groups in 5 different locations.

PART III. Level of education

Target audience	Students of the first level, third year; managers
The trainees' prior knowledge	Introduction to management; Corporate finance; Introduction to marketing

PART IV. Type of course

The principal subject areas of the game scenario	Strategic management; marketing
Teaching and learning objectives	<ol style="list-style-type: none"> 1. Make students familiar with strategic management concepts (mission, vision, business strategy, pricing strategy, marketing strategy). 2. Develop practical skills in the field of strategic marketing. 3. Develop team working skills. 4. Teach students how to analyze financial data. 5. Develop students' strategic thinking.

Strategic Management Games – innovative teaching method for business education

Level of game difficulty	Intermediate	
PART V. Teaching Plan		
Number of trainees in one team	Up to 5	
Number of teams in one game	Up to 5, at least 2	
Number of decision rounds	7	
Time for decision making for one decision round	Approximately 1 hour	
Rules of collaboration within each team	Group leaders (CEOs) are designated by the trainer. The role of every leader is to choose other team members and to designate their tasks with reference to their skills, personality and work styles.	
Rules of collaboration between team and trainer	After every round teams collaborate with the trainer as regards the performance evaluation. The trainer assesses the teams' performances at the end of the game.	
Rules of making decisions	Every team member is responsible for his field of work. Team members are obliged to prepare reports for the CEO who makes the final decision based on these reports and on other data gathered in the company's databases.	
PART VI. Gaming		
Decision suggestions for each round (decisions required for proper market functioning)	Round 1	<ul style="list-style-type: none"> - Setting up of a company (mission, vision and business strategy with reference to consumer groups in the market and their market share). - Organization of the team (rules of collaboration and attribution of tasks between team members). - Setting up of a sales office (Note: if a sales office is set up in round 1, you can employ sales personnel in round 2); - Setting up of production line parameters in conjunction with product parameters. - Choice of suppliers. - Setting up of product prices on different markets (in round 1 you can set up prices for New York and Hong Kong; other 3 markets are available from round 2)
	Round 2	<ul style="list-style-type: none"> - Analysis of reports available after round 1 - Employment of sales staff and manufacturing staff - Production of aeroplanes - Selection of marketing strategy for the product (newspaper ads, TV commercials, net website, street ads – their quantity and frequency taking into account that different customer group have different preferences as regards marketing tools).

Strategic Management Games – innovative teaching method for business education

	Round 3	- Analysis of reports available after round 2 - Transfer of aeroplanes from the headquarters in New York to warehouses (Note: In order to sell aeroplanes in New York you have to establish a sales office there and transfer produced planes from the headquarters to the warehouse)
	Round 4	- Analysis of reports available after round 3 - Production, employment of staff and other necessary company adjustments with reference to the current situation on the market.
	Round 5	- Analysis of reports available after round 4 - Production, employment of staff and other necessary company adjustments with reference to the current situation on the market.
	Round 6	- Analysis of reports available after round 5 - Production, employment of staff and other necessary company adjustments with reference to the current situation on the market.
	Round 7	- Analysis of reports available after round 6 - Production, employment of staff and other necessary company adjustments with reference to the current situation on the market.
	Round 8	- Analysis of reports available after round 7 - Production, employment of staff and other necessary company adjustments with reference to the current situation on the market.
	Round 9	- Analysis of reports available after round 8 - Production, employment of staff and other necessary company adjustments with reference to the current situation on the market.
	Round 10	- Analysis of reports available after round 9 - Production, employment of staff and other necessary company adjustments with reference to the current situation on the market.
Events in the game	Event round	Tips for game master how to balance the game with events
	Possibility of a new market entry	After round 1 until the round 10 it is possible to enter new markets and to open sales offices and warehouses in Lima, Paris and Sydney. It is important in case of a good financial situation of competing companies.
	A grant of USD 1,000,000 for the most innovative company in the region.	It is up to the trainer to determine when to introduce this event. It is suggested to use this solution when virtual companies have visible financial problems.
Applied optimization parameters	Five different areas are evaluated in the game. These are Sales and	

Strategic Management Games – innovative teaching method for business education

description	marketing, Operations, Human Resources, Finances and Strategic Management. To each of the mentioned areas particular parameter or parameters are attached. These are Price index, Sales channels effectiveness and Sales Index in case of Sales and Marketing; Production effectiveness and stock Shortage for Operations and Employee Satisfaction, Debt Index and Plan Fulfillment Index for respectively Human Resources, Finances and Strategic Management. Results for each of the areas are evaluated on the basis of a linear function of the particular parameters' values. Significance of all the parameters is proportional to the number of the parameters included within the area.
How to read optimization parameters in gameplay context	Optimization algorithm indicates the situation within the company - the higher the value, the better. OA depends mainly on sales, production efficiency, salaries, and perspectives.
PART VII. Assessment of trainees' activity	
Possible trainees evaluation criteria (e.g. market share, financial situation)	<ul style="list-style-type: none"> - Current balance and market share at the end of the game depending on the number of competitors on the market. - Value of benefits resulting from accurate predictions of market share, profits and revenues.
Possible trainees evaluation rules (e.g. results of the game, presentation of the company's strategy, participation in the game)	Trainee evaluation rules are based on two elements: the results of the game and the presentation of the company's strategy. The presentation of the company's strategy takes place after the presentation of the final results of the game. The aim of every team is to explain their strategy implemented during the game in conjunction with the market share and the current balance at the end of the game.