

System Dynamics for Business Strategy (10 ECTS)

1. Course Description

Introduction to the system dynamics for business strategy, with a specific focus on small medium enterprises and on their relationships with the public sector.

2. Learning Outcomes

Knowledge and understanding

Students gain knowledge in the application of system dynamics to business strategy formulation and implementation, with a particular focus on small medium enterprises and on their relationships with the public sector. Skills are developed in mapping processes affecting performance. Students also learn to use the system dynamics method in supporting business decision makers to identify areas for performance improvement, and set proper goals/objectives, as well as performance indicators to foster sustainable strategies.

Applying knowledge and understanding

The students will engage in real life case-study analyses in which they will practice their business knowledge, modelling skills and systems understanding on identifying the systems structure underlying poor business performance and on developing and assessing strategies and policies aimed at performance improvement. Students will demonstrate their ability to transfer their skills across management disciplines, including strategic management accounting and business and scenario planning. And they learn to approach a problem from a multi-sectoral and a multi-disciplinary perspective in the private vs. public sector domain.

Making judgements

Students learn to assess the sustainability of business strategies from various perspectives. They gain a systemic, time-related, and context sensitive view of firms. They also learn to evaluate performance, based not only on financial, tangible and intangible factors. Management is considered the integration of planning and control, strategy and implementation resulting in organizational *learning*. Students learn to detect the limits of conventional methods, techniques and tools in strategy design and implementation, and performance evaluation. They learn how the role of such tools can be re-shaped according with an emphasis on learning using system dynamics. Real case-study analysis will be conducted during lectures.

Communication

Students can present and discuss relevant literature sources as well as the result of their case studies in class. They also present results from modelling and simulation sessions to stakeholders in organizations and to interested academics.

Learning skills

Students are enabled to acquire skills – also through individual assignments (together with feedback from teachers) – that are required for self-studies of the literature on the subject.

3. Course Content

The course is divided into three parts:

a) Strategy principles & Strategic planning/control

- The concept of business strategy – The Business Idea. Strategy as learning
- Strategy as learning: Case-study analysis
- Strategic Planning & Control. Conventional strategic analysis tools: matrixes, SWOT analysis
- The strategy process

2. Using P&C tools for strategic analysis and diagnosis

- Financial analysis: ratios
- Profitability & Solvency analysis
- Financial analysis: flows
- Assessing solvency, liquidity and profitability in relation to sustainable growth.
- Cost analysis
- Contribution margin analysis
- Budgeting and variance analysis
- Framing financial statements through System Dynamics models

3. Business Growth Sustainability & restructuring strategies

- The specific complexity of small-medium enterprises (SMEs)
- Planning for business growth and restructuring - Modelling SME Growth
- Diagnosing Business Growth Sustainability
- Modelling stunted and inflated growth
- Modelling Intellectual Capital
- Designing & Implementing ILEs to support management education and entrepreneurship.

4. Course Design

The course is comprised of lectures, seminars, group discussions, students' presentations, modeling sessions and individual assignments/papers. An overall attendance rate of 80% in scheduled sessions is required, and attendance is mandatory in the group discussions, students' presentations, and seminars, and active participation is required in those sessions.

5. Student's Evaluation

Assessment is carried out by means of evaluation of individual and group assignments. For a passing grade the student must (a) have pass marks on all the assignments; (b) have participated in the mandatory sessions; (c) have an adequate overall attendance rate. In addition, the grade is based on a project report and its presentation.

An ECTS grade is provided to the student at the end of the course according to the A–F scale. Students not successfully fulfilling all the course requirements within the regular time frame have the option of a re-sit the following semester.