



Faculty: Business School
Department: Management
Module name: Business Simulation
Degree: MSc Management
Level: Postgraduate
Approximate number of students: 29 in 21-22
Weighting and credit:
Ranking in the simulation: 15%; 85% Final Strategic Plan
Module ECTS: 5
Module type: Elective

Insights colour key

Educational Developer

Inclusivity

Learning Designer

Registry

Careers

Interviewee: Elena Dalpiaz
Role: Module Lecturer

Business Simulation

Assessment overview

In this assessment, students are put into teams, with each team representing the executive board of a hypothetical start-up in a given industry. Each team member must take on a primary area of responsibility, such as marketing, finance, etc., and decide how the decisions in each area are to be taken (e.g., individually, or collectively). The team play a simulation game, using Marketplace Live Software <http://game.ilsworld.com/marketplace-live/>. Knowledge for the assessment is self-contained in the software; the software has an extensive manual where all concepts and formulas are explained.

Assigning group members roles and responsibilities makes students think of somebody else's perspective which increases their commercial awareness that is often missing in the academic world. They are going to have to understand what a start-up might need so they are going to have to influence and make decisions, understand the background of working in small to medium enterprise. There are elements of communication skills and negotiation embedded when agreeing on a cohesive plan that fits with everyone else's agenda. Also a task like this teaches students to deal with conflict especially if the roles come with specific agendas that need to be negotiated.

Groups are assessed based on how well their hypothetical company performs in the simulation, trying to outcompete the other teams. The simulation is split into eight quarters, with two quarters falling over a 24-hour period in each session. Each quarter presents the teams with different priorities and tasks, which the teams must undertake in the designated timeframe.

Firm performance is a function of the ability to run the 'company' in a profitable manner, achieve strategic goals, make responsible and ethically sound decisions, and create the premises for a sustainable business. The metrics used to assess the simulation performance are set by the balanced scorecard elements, produced by Marketplace Live, which are based on the last few decision rounds. Later, the scorecard results from the software are scaled as they are translated into group marks for the assessment.

At the end of each quarter, students receive automatic feedback as to how well their company is performing vis-à-vis competitors. Students can drill down into the elements of the balanced scorecard so as to try and enhance their performance in the next quarter. In this way, they are able to address weaknesses and lever strengths. Additionally, the instructor helps by offering considerations before the start of each round of the 'game', helping the teams honing into the crucial aspects of a given round.

Design Decisions

Rationale for the simulation

The simulation allows for the students to devise and implement an integrated set of choices, including the overall strategy of the company,



Such an assessment approach is more authentic as it provides students with an opportunity to produce a piece of work that has meaning and value beyond the purposes of the assessment itself, hence making for a more authentic experience.

Fun and engagement in learning and assessment comes from providing sufficient challenge in order to make the assessment task feel worthwhile but also doable with enough effort. This also links to the idea of authenticity: if it is clear to the student why the assessment is being done (beyond just getting a grade) and how the assessment could be useful beyond the assessment itself, then this has potential to increase the level of fun and engagement.

While a competitive element can be motivating, we should be mindful of creating environments that enable students to strive to do their very best but without impacting negatively on others; “competing with rather than competing against” – so creating an engaging, fun environment but where collaboration is more important than competition. Having said that, competitive behaviour is also part of authentic practice (and life).

and see how the company performs in a mock setting. Learning outcomes include learning important business concepts, principles, and ways of thinking. Additionally, promoting better decision-making by learning to manage a totally integrated company in a rapidly changing environment. Furthermore, students learn the importance of using market data and competitive signals to adjust tactics, and lastly, they develop leadership, teamwork, and interpersonal skills.

Students put in practice and connect everything they have learnt on the master’s programme (MSc in Management) – all concepts across almost all courses (accounting, finance, entrepreneurship, innovation, competitive strategy, corporate strategy, marketing, etc). It also prepares students for future working life because of the ‘real-life’ level of teamwork involved: fast-paced, challenging, and one where inputs from one person affect team performance. [Additionally, students learn how to allocate decision-making.](#)

Rationale for electronic delivery

The ‘real-life’ electronic simulation in Marketplace Live allows for a fun, engaging competitive nature in the assessment.

The competitive aspect is realistic for business roles as the students will usually join high pressure corporate environments where an element of competitiveness is sometimes present. However, it is good to help students manage those environments hence there should be some scaffolding around how to embrace it without it being destructive to self and others. This means that fun and competitive doesn’t always go together but it can with appropriate briefing and scaffolding.

Additionally, if students have a query at any point of the assessment, they have access to a Help File in the simulation, which details all theories and concepts necessary to apply in various situations, as well as the formulas which are computed in the simulation. Also, there is a Support Team of the simulation, which offers quick response times via email, and the lecturer also remains available for questions over email. The electronic delivery mode offers the students a very wide range of support throughout the assessment, including 24-hour support offered by the software team, as well as lecturer support offered during the allocated time of course sessions.

Imperial College London pays a licensing fee to use and register the teams for the simulation on Marketplace Live. This is organised by the programme team.

Fit with other assessments

The simulation sits nicely with the course’s other assessment (85% of the course weight), the Final Strategic Plan. Here, the students come up with their plan highlighting the key decisions, missteps, and achievements of their company, and the key messages they would like to impart to the marketplace. These messages may include a company introduction, a summary of mission and vision, reviews of key performance indicators, performance of the board of directors, marketing, distribution, HR and

Business Simulation



This approach to an assessment prompts students to make connections between different areas of the curriculum, which is one of the aspects that can help to promote deeper approaches to learning. When implementing a more integrated approach, constructive alignment becomes even more important than it usually is, as there needs to be very clear alignment at modular and programmatic levels. Students and staff need to be aware of what is being taught across the programme and how the various ILOs are assessed within modules, within the programme, and also across modules in an integrated way. This clear overview of the programme also ensures that the key concepts – that are incorporated into an integrative approach to assessment – are explored in the compulsory /core elements of the programmes, to make sure that all students will have previously encountered the concepts/content in question. A key benefit of an integrative approach is that it provides students with opportunities to be more autonomous in their learning and decision-making. If clearly linked back to previous formative tasks (which is why it is necessary to have a good overview of what is taught and assessed across a whole programme), students can also incorporate any previous formative feedback into their work, which makes for a more authentic, iterative experience. This approach also gives students opportunities to demonstrate higher order analytical, (meta) cognitive, and decision-making abilities, alongside showcasing their disciplinary knowledge.

operations, financial performance, and a strategic plan for the next 3 years including a risk assessment, and financial and ethical sustainability.

The plan is meant to highlight the key achievements and messages the company from the simulation would like to impart to the marketplace. The recommended structure of the report is to produce the report in a Word document, including the following:

- Company introduction – summary of mission, vision and company demographics / markets / customers / competitors
- Review of key performance indicators
- Review of role and performance of the Board of Directors
- Review of marketing, distribution, HR and operations performance
- Review of financial performance
- Prospects for the company's financial and ethical sustainability
- Recommended strategic plan for the next 3 years (including risk assessment)
- Relevant appendices (you can export charts and tables from the simulation)

This assessment draws on knowledge introduced in other modules asking students to connect everything they have learnt on the master's programme (MSc in Management) – all concepts across almost all courses (accounting, finance, entrepreneurship, innovation, competitive strategy, corporate strategy, marketing, etc).

Practicalities

Organisation of group work

In organising the group work, students self-select into groups of 5 or 6 'executives'. Students suggest the team of people they would like to be part of. No patterns in group formation such as gender, ethnicity, or location when studying have been noted. The group formation is usually done after the kick-off session, where the lecturer explains in detail what the simulation is about (and what skills are required).

Purely from a disability perspective group allocation should be random, i.e. it is not advisable to specifically group students with learning difficulties together if they do not self-select to do it themselves. Students should be allocated randomly and if necessary reasonable adjustments should be made for those individuals in these groups.

Students selecting their own groups can help to give them ownership and autonomy over their work and subsequent group dynamics. However, it can be more inclusive to assign students to groups, this ensures that no student feels left out. The teacher is likely to have knowledge of students' particular strengths and can group accordingly. There is much to be learned from working in diverse groups (e.g. gender, cultures, languages, etc.), so this is something that can be ensured if groups are formed by the teacher. Working in diverse groups is also another aspect of authenticity (and also links to Imperial graduate attributes), as students will likely need to be able to work with a diverse range of people in their future working lives.



It is also useful to think of embedding flexibility to allow students to request to change groups for whatever reason, as long as that move is justified.

With any type of assessment it is important that the students understand what they are expected to do and this is also the case with any kind of group work. It is crucial to outline to students how the team is expected to work together, especially in environments where students need to successfully work together under time pressure. Getting students set the ground rules in advance is sensible so that they can establish a way forward. See this case study for ideas how this can be successfully achieved.

The module creates a fast-paced environment that resembles authentic practice and imitates some of the pressures students will be experiencing in their professional lives. An important thing to consider is allowing for cases of mitigation so that students with extenuating circumstances who will be granted an extension can participate in the assessment. Same applies to students with disabilities, who also should have reasonable adjustments to be able to take the module and successfully complete their assessment.

Once in groups, students decide amongst themselves who will take on a primary area of responsibility, based on attitudes and proficiency. They all need to be present together for the simulation so they can work through the challenge of a given quarter, and then work independently on the decisions that pertain their own area of responsibility. All students in a team get the same mark for the assessment.

When introducing group work some consideration needs to be given to how students with specific learning needs can be successfully participating in group interactions. All students involved should benefit from inclusive practice this means that inclusivity considerations can be embedded within standard practice around preparing students for group work. This can be done through discussion around the allocation of roles and better understanding how others, including those with specific learning needs such as dyslexia, autism, dyspraxia etc learn and communicate.

To manage any risks of free-riding, the lecturer is able to see how many hours each individual has worked on the simulation, and has never experienced any issues of this kind, thus has not implemented peer feedback into the assessment. Students have been found to generally be highly motivated and engaged in this assessment; it is fast-paced and challenging, and the first time in their master's degree they can see how decisions across functional areas (marketing, R&D, finance, etc.) are interconnected and impact the financials and competitiveness of a company.

Based on initial market information, the student teams decide upon the competitive and corporate strategy for their start-up. Immediately, students work on four key areas of (interconnected) decisions: marketing, manufacturing, human resource, and finance. At every quarter, new decisions are made to address the changed (simulated) market conditions and necessities for growth.

Organisation of assessment content

The following breaks out the 8 separate 'quarters' of the assessment. Two quarters run over a 24-hour period in each session. The 24-hour time frame works well with students in different time zones. It is recommended students meet together either physically, or virtually, during the sessions, which are three hours long each. Then, each student can work on their area of responsibility in the rest of the 24 hours. This set-up allows the assessment to run well for an in-person module, or online.

Tasks with time pressure can be useful if the ability to manage a crisis scenario or exceptionally high pressured environments is one of the learning outcomes of the module or an important soft skill that the module aims to develop. This is where this time pressure shouldn't be removed but rather students should be scaffolded to learn how to navigate around it. If this is not the case, then it is important to consider whether the short time frame unnecessarily puts additional stress on the students.



Q1: ORGANIZE THE FIRM

- Organise the team
- Name the company
- Contract for a survey of potential customers

Q2: SET UP SHOP

- Analyse market information
- Establish strategy (competitive and corporate)
- Design brands and set up sales offices and/or regional web centres

Build a factory (choose locations)

Q3: TEST MARKET

- Hire sale force
- Price the brands
- Design advertising campaign
- Schedule production for each brand

Q4: ADJUSTMENT

- Sell 1M stock to team
- Review market and operating data from test market (end-user feedback, competition, operating performance, employee productivity and financial performance)
- Adjust strategy

Q5: INVEST IN THE FUTURE

- Consolidate strategy
- Invest in R&D for new brand features
- Increase employee satisfaction and production by adjusting compensation
- Expand market presence (e.g., add new sales office and web exposure)
- Improve production capacity

Q6: EXPAND MARKET OFFERING

- Introduce new brands and new features
- Continue market expansion (sales team, sales channel, production)

Q7 - Q8: REFINE

- Study data (market, financial, production,) to satisfy customer and employees better, increase quality and reduce costs, etc.

Q9: END OF THE GAME

- Firm ranking (marks delivered)

Preparing students for assessment

Students are briefed in a kick-off session, which

Business Simulation

is a separate session typically in the week prior to the commencement of the simulation. Furthermore, each quarter begins with a briefing by the software providers about the task for the quarter (e.g., expand production capacity, open sales office abroad, introduce new brands, etc.). Additionally, the lecturer also offered additional briefing via email to all teams.

When introducing tasks with added time pressure it is important to consider students with learning difficulties. Some of those students don't feel comfortable to disclose this to the group and therefore might struggle to meet the pace and certain standards that others are imposing on them. Outside of making working in diverse groups part of group work preparation, there should also be mechanisms put in place to identify where groups are struggling and what support and adjustments could be put in place.

Marking arrangements

The ranking from the simulation software scorecard is utilised for group marking for the assessment. The ranking in the simulation (100-0) is weighted by 15%. The main report (final strategic plan) is marked by the instructor and accounts for an additional 85% of the module marks.

All team members receive the same mark as it is a team effort. The report is marked by the instructor and then second-marked by a second marker. The assessment criteria for the report include ability to produce a highly professional business report, comprehensiveness, coherence and rigour, and ability to be convincing. Importantly, the report must show the team's ability to manage by numbers.

Feedback arrangements

The software offers detailed feedback at the end of each round of the game, including position in the marketplace, and outcomes in the balanced scorecard. Students can drill into each element of the balanced scorecard to understand what they did well and what they did poorly in each area. Throughout the game, the software also signals challenging situations for a specific team. The lecturer writes detailed feedback in a report on the criteria reported above.



Online adaptations

This assessment could easily be implemented both in an online class setting or in person. The simulation is online, so students can be either together physically, or working together online, while working on the simulation.

It is important to be mindful when designing group activities online with learners from all over the world. For instance, it is recommended to take into consideration learner's time zones when setting up groups to ensure they can easily meet and contribute to the task. In addition to these practical considerations, it is also recommended to design group tasks taking into consideration individual accountability and responsibilities within the wider task, design clear instructions, and ensure groups can seek for support (with a TA or PM) in the case of challenges within the group.

Advantages of the assessment type

- Gives hands-on experience for students to work in specific areas of responsibility, and influence the direction and competitiveness of a company;
- Experience teamwork in a fast-paced environment;
- Very close resemblance in a compact, high-speed environment of all the decisions managers must make;
- [The above point makes it for a very authentic assessment design;](#)
- Encompasses all lectures, frameworks, and concepts taught in the MSc Management programme, how they work together, and how they impact a firm's financials and growth in the marketplace
- There is clear alignment across the programme and modules, and if the links between modules, ILOs, etc. are made clear and explicit to students (and staff).

Limitations of the assessment type

- There is no embedded system to account for potential free-riding. However, students who choose the module have always been highly-motivated, and no problem has ever occurred;

Advice for implementation

- Do an introductory lecture for the simulation and constantly update students through emails about what are the next steps, as well as providing

Business Simulation

general advice;

- Give students the ability to choose their own groups as it is a very intensive exercise;
- Within the groups (5 or 6 students), it can happen that a student cannot work on the simulation for one quarter (e.g., because of a job interview). In that case, as in real life, the student has to find another person on their team to take over it for the round. This further expands the students' understanding of real-life practicalities of business settings and responsibilities;
- Following on the point above, such an approach very closely resembles real life practice, it puts the onus on the students to organise work and helps them build the idea of professionalism. One thing to consider when implementing such a solution is that in real life people usually have a chance to build a relationship a bit before they have to make those requests so this should be taken into account;
- In the programme and module handbooks, and in the introductory lecture, provide a clear overview of how this assessment fits with the other modules in the programme. This will help to make the integrative and authentic nature of the assessment clear to students;
- If assessments have elements of competition designed into them, these should be lower stakes assessments, perhaps at formative stages rather than summative;
- One way to surface and counter potential free-riding is to ask each group to include a brief inventory of each group member's contributions during the assessment task. All group members produce this together and sign to say it is an accurate record of each person's contributions. This could be a simple, factual list and/or it could be a slightly longer reflection on how the group worked together and what each member contributed;
- Preparation for working in a group is key and it should include some discussion of how students with different learning needs might respond to group work. It is always useful to negotiate ground rules based on group participants' working patterns and preferences;
- Ensure that assessment is designed in such a way that reasonable adjustments can be made and there is enough time to allow for mitigation if necessary.