



Understanding the impact and use of virtual games in SMEs - BGame Survey

Compilation of the country reports

www.bgame-project.eu





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Introducing BGame

BGame project, supported by the European Commission under the Erasmus+ Programme, aims at creating a strategic management virtual game for Small and Medium Enterprises (SMEs) to further improve the strategic management skills of SME employees and managers and extend the learning opportunities of individual adult learners in entrepreneurial contexts.

BGame will also offer a set of innovative learning resources (within the game) that further supports managers and entrepreneurs to take the best decisions for their businesses regarding strategic management. To achieve the above-mentioned objectives, the following target-groups will be approached:

- SME representatives, including managers, directors at primary level and employees at second level;
- Trainers, especially in-company trainers, dealing with overall Business & Management areas, and specifically with Strategic Management;
- All those interested and/or operating in business, including entrepreneurs, start-up owners/representatives and others.

In detail, BGame will offer an Online Virtual Game that simulates eight different business scenarios (companies operating either in the service sector or in the industrial sector) in which, a team of managers and business representatives will play – this means, taking decisions – so as to manage a successful and profitable business. This business-oriented simulator will mostly test the strategic management knowledge and skills of the players through a real practice experience.

With BGame the partnership expects to extend the learning opportunities of adult learners in entrepreneurial contexts and professional backgrounds. To further consolidate these learning opportunities, BGame will also offer a set of training materials that will help players in their decisions throughout BGame.



How BGame was conceptualized?

The Background

The effectiveness of training is one of the core features of human resource management. The most important problem is connected not with the information which the trainees need to acquire, but with the methods of training. Training methods determine the effectiveness of the training, the involvement of the employees, and the durability of the outcomes. As far as business training is concerned, many in the business world argue that educational institutions are too distant from the world of work and that the education they provide does not match the needs of enterprises. The results of research into enterprises show that most managers are only partly satisfied with the training of their employees. The main reasons why employers consider the effectiveness of training to be inadequate include a lack of training institutions capable of carrying out effective training, the difficulty of applying new knowledge in practice, as well as a lack of employee interest. The closer to the real world of work the training is, the greater its effectiveness. Analysing the materials and good practises of a number of training providers, the most effective methods for diminishing the gap between theory and practice is using experiential methods based on ICT, like virtual strategic games. A virtual strategic game as an educational method is based on the involvement of the employees being trained, analyses of business world situations, creating a process of decision making by trainees, and feedback on the results of business decisions. Business games were first used for business training in the United States over 50 years ago. In Poland they have been used for about 10 years but their cost means that this method plays a relatively small part in training programmes. Business simulations combine education and entertainment; they make it possible to test various strategies and assess their effectiveness; and strongly engage the trainees, which increases the efficacy of learning.

The philosophy of Strategic Management Games project

A business game is a simulation or model of either the whole or a part of a business organization. Simulations and games are experimental training activities, which incorporate and utilize the various mental abilities of students. The students as players put themselves in the position of business managers in various aspects of company management. During the game, their task is to make decisions within their area of competence, and the quality of those decisions has an impact on the performance of the virtual company. Business games force the participants to take a sequence of managerial decisions, and later on the players receive feedback regarding the consequences of those decisions. Business games are considered as a trial-and-error method, which permits a deeper insight into business management problems. Simulations increase the level of organizational reality during training and provide the trainees with an opportunity for unstructured learning. All of these advantages of virtual games as a teaching method are the reasoning behind the application for the project.

Virtual games not only impart knowledge to the students but also (which is extremely important) develop such necessary skills as teamwork, decision-making skills and analytical skills. Through virtual games, students are taught in situations as close to real world as possible because they are simulations of the real world.



Virtual games are one of the solutions within educational methodology, which fulfil the needs of today's students and society. In the GAMES project we combine the experience of teachers from different teaching areas, both business and socially oriented. This ensures the sophisticated results of the GAMES project, which incorporates both economic effectiveness and social sensitivity into these education tools.

Strategic Management Games – innovative teaching method for business education (project number 2011-1-PL1-LEO05-19884) – projects were closed on 31st January 2014

According to The Lisbon Strategy, Europe should become the most competitive and dynamic knowledge-based economy in the world. The Lisbon conclusions stressed the central role of education and training as the main instrument to increase human capital. Most of the managers are only partially satisfied with the training of the employees. The main reason why employers consider training as not sufficiently effective is - lack of Training institutions capable to carry out effective training; Inability to apply new knowledge in practice; Lack of employee interest, etc. Analysing so far available materials and good practises of a number of training providers the most effective methods for diminishing the gap between theory and practise is using experiential methods based on ICT, like virtual games.

Because of the attractiveness of business simulations as a training method a project was embarked on entitled Strategic Management Games – innovative teaching method for business education (project number 2011-1-PL1-LEO05-19884), implemented within the Leonardo da Vinci Transfer of Innovation programme. The principal objectives of the project was to develop and test business games scenarios as well as teaching notes on the basis of the strategic game engine prepared for the purposes of the project.

The specific objectives of the project were:

- To assess the actual competence of the selected trainers for using Virtual Games in Strategic Management.
- To train 25 trainers on teaching Strategic Management Games,
- To develop 8 cases ready to use in Virtual Games,
- To develop teaching notes for the games and pilot 8 games training a group of managers on Strategic Management,
- To amend the 8 games according to the feedback after the pilot training,
- To develop the textbook and an article on using ICT in teaching process,
- Disseminate results of the project in 2 international conferences.

Target groups of the project were: direct - educators & trainers dealing with Strategic Management education. Indirect target group are managers. The beneficiaries were: Educators and trainers, enterprises, training providers, and students.

Four partners from three countries were involved in the project: Poznan University of Economics (Poland), Wielkopolska Chamber of Commerce and Industry (Poland), ISM University of Management and Economics (Lithuania), and Karl-Franzens-University Graz (Austria).

For further information, please visit http://leonardo.ue.poznan.pl/smg/



The specific project aim is to embed Strategic Management Virtual Games within Consortium business education through enhancing trainers' competencies to create virtual reality and use it on strategic management training.

Overall aim is – to transfer experiential and innovative teaching methods based on ICT, contributing to the quality of strategic management education.

Work on project has also been a good opportunity to run some research on entrepreneurial intensions of students and other trainees. Such research was run by prof. Aleksandra Gawen and Dr Maciej Pietrzykowski at the University of Business and Economics in Poznan. Students have been investigated at the start of the semester and then at the end after a few sessions of playing the game. General findings are as follows: students have a positive attitude toward entrepreneurship and the role of entrepreneurs in the Economy of the Country. They have relatively high level of entrepreneurial intensions as well. As they have participated in the training on gaming, their attitude has improved in all areas as far as entrepreneurship was concerned, increasing also acceptance and determination for setting own company. Deriving some generalisation from this research would not be a good idea, since the sample was statistically insignificant. However, the research findings can be an inspiration for further investigation of the gaming phenomenon.

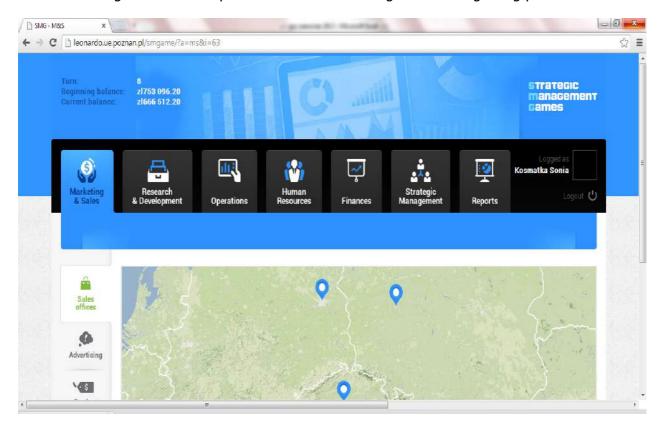


Figure: Screenshot of game interface

Playing the game or testing it is possible after contacting projects coordinators Aleksandra Gawel (aleksandra.gawel@ue.poznan.pl) or Maciej Pietrzykowski (maciej.pietrzykowski@ue.poznan.pl).



1. State-of-art

In businesses and entrepreneurial contexts, virtual games are nowadays starting to demonstrate their potential as business-related simulated environments in which organizational risks are minimized. Depending on their efforts in defining and implementing their strategies, participants gain better understanding of how the company management works in practice.

Although the tradition of strategic management virtual games came with the multinationals, nowadays these games are becoming common practice in many large national companies with structured policies of human resources, especially from the pharmaceutical industry, technology telecommunications and banking. These large companies resort quite often to these types of games to, for example, choose candidates for other positions within the company or simply to find out employee has the best profile for promotion.

Moreover, strategic management games are gaining more importance and weight not only in business but also in universities. In addition to being a great recruiting tool for the entrepreneurial world it is also an evaluation tool in academia, adding value in the school curriculum and serving as an approximation route between the entrepreneurial and academic worlds.

The Global Management Game "Expresso", the "Brandstorm" and "Reveal" L'Oréal, the "Trust" Danone or "EDP University Challenge" are some of the games that most rely on the participation of universities activities. The ISCTE Business School, NOVA, the ISEG and the Faculty of Economics of the Catholic University are some of the institutions that are present in these competitions.

By participating in the games developed by companies, students analyse real and practical cases to present a solution. In addition to being one the opportunity of employment, these games allow students to develop core competencies for their future professional and put into practice the knowledge acquired during the course.

Although such games are not yet very popular among SMEs, they are prevalent among the best business schools and are used as important tools to train entrepreneurs-wannabes and future professionals wanting to strengthen their knowledge of the business world and to further develop their confidence to take new functions in the market. For future businesspersons, these games become an important entrepreneurial life-experience, even before their entry on the job market, and it provides solid and confortable baggage on how to deal with competition, the market swifts and the consequences of taking individual or even group decisions.

2. BGame Survey - Understanding the impact and use of virtual games in SMEs

Each of the six partners collected at least set of surveys targeting the potential future users of BGame, thus providing valuable information and knowledge. The surveys focused on evaluating three things:

(1) Target group's knowledge and use of virtual games in their companies and businesses (especially SMEs)



- (2) Target group's assessment about the importance of playing virtual games oriented towards personal and professional level
- (3) Target group's perception of how a virtual game for strategic management should be and which skills and competences should develop.

This survey also went addressed some questions about the game scenarios and how the target groups perceived them. The survey results help the partnership better shape the BGame virtual game to be transferred and further developed.

2.1. Analysis of the survey: Online Virtual Games applied for Businesses or Strategic Management Games

In total 66 surveys were gathered by six partners from five countries: 10 from Austria, 10 from Romania, 11 from Poland, 13 from Portugal and 22 from Spain. The surveys were completed as an online questionnaire translated in the local language. The findings were analysed first at a national level and then together.

2.1.1. Existing training practices



Figure: Questionnaire responses on the existing training practices

The survey findings show that all respondents use workshops or seminars as their training tool. Other practices were relatively uncommon: a few respondents had also used simulation days as a part of their training practices.



2.1.2. Familiarity with the concept



Figure: Questionnaire responses on the familiarity with the concept

Most respondents were not familiar with the concept of games applied to Business or Strategic Management. This finding poses an important opportunity for BGame project and its presentation to companies: it seems that the target audience has very low knowledge on the possibilities presented by gamification of business and management training.

The minority of the respondents who were familiar with the concept described their experience as a traditional "management or marketing game" and simulators.

2.1.3. Past experience



Figure: Questionnaire responses on past experiences

Of all the respondents, only three had experiences in playing such virtual games in the past. One particular respondent (from Poland) had a personal interest in such games and demonstrated indepth knowledge on the concept.

2.1.4. Naming useful games

Only a few of the respondents were able to name such a virtual game. The games that they identified as such were *Design Thinking Simulator, Farmersi* and *Business Zone*.



2.1.5. Skills to be developed

The findings suggest the virtual games are seen to have potential to develop several business and management attributes. The most popular skills development identified as potential for this type of gamification were decision-making and leadership. Other popular aspects were both creativity, time-management, leadership, team-working and communication skills.

From technical skills, continuous improvement, competitiveness and innovation were three most selected skills. From soft skills, the most selected skills were sense of initiative, communication and creativity.

2.1.6. Interesting business areas for virtual games

From the given options, most respondents were interested in using virtual games for sales, marketing and international markets. However, none of the presented options were considered unnecessary, but also customer relationship management and employee engagement collected some votes. It could therefore be concluded that there is an interest and willingness to explore the opportunities of gamification in all business areas.

2.1.7. Most valued attributes

The respondents were asked what they valued the most in Virtual Games for Business or in Strategic Management Games. The responses were collected on a Likert scale, ranging between 1-5 (1 being "Not important and 5 being "Very important").

In total 10 attributes were evaluated by the respondents. The responses indicate, that by average the respondents found most value in online games that promote teamwork, delivering better learning opportunities and exchanging information, implementing strategy for knowledge management and boosting employee commitment and productivity. The least value was seen on games that focused in recruitment and retention of qualified employees and reducing company costs.



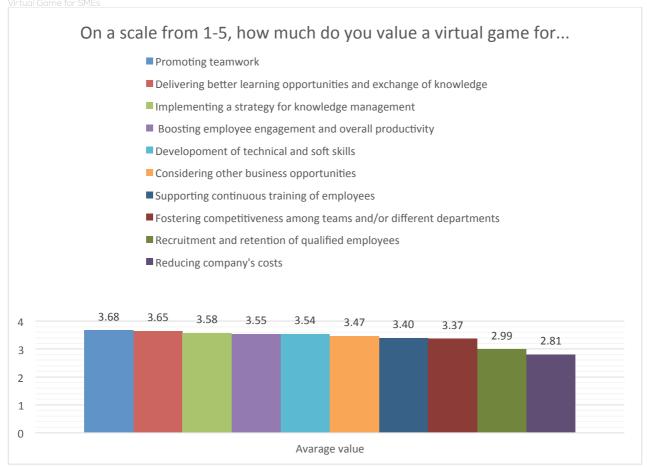


Figure: Questionnaire responses from the most valued to the least valued

The country-specific findings are presented below, in the corresponding order to where they were placed in the questionnaire.



Figure: Questionnaire responses on value of supporting continuous training of employees

Games supporting continuous training of employees are considered to be more or less important and quite important (average: 3.40).



2.1.7.2. Reducing company's costs



Figure: Questionnaire responses on value of reduced company costs

Games aiming at reduced company costs are considered to be somehow important and more or less important (average: 2.81).

2.1.7.3. Recruitment and retention of qualified employees



Figure: Questionnaire responses on value of recruitment and retention of qualified employees

Games aiming at recruitment and retention of qualified employees are considered to be more or less important (average: 2.99).

2.1.7.4. Delivering better learning opportunities and exchange of knowledge



Figure: Questionnaire responses on value of delivering better learning opportunities and exchange of knowledge

Games aiming at delivering better learning opportunities and exchange of knowledge are considered to be more or less important and quite important (average: 3.65).



2.1.7.5. Development of technical and soft skills



Figure: Questionnaire responses on value of developing technical and soft skills

Games aiming at developing technical and soft skills are considered to be more or less important and quite important (average: 3.54).

2.1.7.6. Considering other business opportunities



Figure: Questionnaire responses on value of considering other business opportunities

Games aiming at considering other business opportunities are considered to be more or less important and quite important (average: 3.47).

2.1.7.7. Promoting teamwork



Figure: Questionnaire responses on value of promoting teamwork

Games aiming at promoting teamwork are considered to be more or less important and quite important (average: 3.68).



2.1.7.8. Fostering internal competitiveness



Figure: Questionnaire responses on value of internal competitiveness

Games aiming at fostering competitiveness among teams and/or different departments are considered to be more or less important and quite important (average: 3.37).

2.1.7.9. Boosting employee engagement and overall productivity

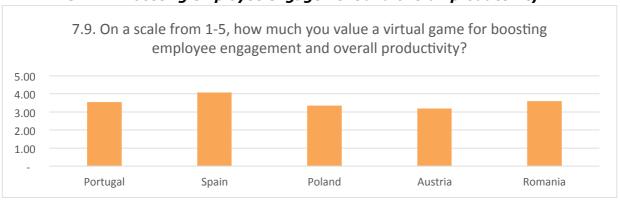


Figure: Questionnaire responses on value of boosting employee engagement and overall productivity

Games aiming at boosting employee engagement and overall productivity are considered to be more or less important and quite important (average: 3.55).

2.1.7.10. Implementing a strategy for knowledge management



Figure: Questionnaire responses on value of promoting teamwork



Games aiming at implementing a strategy for knowledge management are considered to be more or less important and quite important (average: 3.58).

2.1.8. Participation in scenario development

The respondents were asked: "Do you think it would be important for companies to be involved in the development of the games scenarios or you would prefer to have immediate access to a scenario already developed, given that several options would be offered?". The responses were divided into two rather equal shares.

One half of the respondents wanted to have the possibility to join a pre-defined scenario. The time and money saved by this was considered as a reasonable trade-off even if the scenario could be then expected to have some limitations. One of the respondents said that it would be enough for them to have a scenario from the corresponding industry.

However, the other half of the respondents said that they would rather spend time with game development in order to ensure high-quality content. They found that customised content would bring the direct benefits to the business, whereas pre-defined scenarios were expected to be theoretical and artificial.

Multiple respondents suggested some type of hybrid solution. One idea was that the basic scenarios would be adaptable to the specific business variables. Another suggestion was that as players advance in the game, they could start customising the scenarios for themselves. This way the game would progressively become more relevant for them.

2.1.9. Requested scenarios

The respondents were asked: "The following game scenarios will be available for you – service companies, such as aesthetic clinic, local restaurant and consultancy company & production companies, such as chocolate factory and computer production unit. What other scenarios would you like to have at your availably?"

The scenarios that the respondents were interested in having scenarios on such industries:

- retail sales
- online shops
- digital agency
- industrial companies
- software development
- web design
- leasing

- hotel industry
- IT company
- wholesale distributor
- training company
- storage
- commercialisation
- green innovations

Furthermore, the management area the respondents were interested in having a game for were:

- project management
- HR management
- consultancy
- open services
- public administration
- internationalisation

A few respondents also suggested there could be a differentiation between small and medium enterprises and large companies.



2.1.10. Training component

The respondents were asked: "BGame will also offer the possibility of combining learning while playing the game. This will enable players to have in the end a more in-depth understanding of a specific business topic in the end. How important would it be to you and your company to have a comprehensive explanation of each achievement throughout the game?".

The respondents unanimously agreed that it is important to have training integrated to the game, as they see it as an element that enriches the learning potential and allows deeper knowledge of the acquired competencies. Without explanation the player is left wondering whether the choice they made in the game was right or wrong. Lack of feedback is often the reason for the repetition of errors, thus making the tool somewhat useless.

A point was, however, made that the game should be intuitive and self-explanatory, and therefore there should be no need for exhaustive background reports but rather a seamless flow of feedback integrated within the game.

3. Research Sheet

3.1. Simulare

Country / partner: Portugal/Brazil (INOVA+)

Website: http://simulare.com.br

Small description:

The business management simulator is used as a tool that provides participants (typically graduate and post-graduate students) a real practice experience for managing a business.

Participants are usually gathered in 3-5 team members, with a mission to manage one of the simulated companies. The companies compete for a period, which can range from a few hours to months. The time will depend on the dynamics and didactic adopted.

The simulation takes place in rounds decisions. With each new round, the teams make decisions like price, in advertising investment, timing of receipts and payments, purchases of inputs and machinery, hiring and firing, loans, financing, etc.

All these decisions are made based on analysis of the rules of the game, the news published on the website of Simulare from accounting and management reports issued by the simulator and the policies and goals of the simulated company.

To guide and monitor the group, a mediator is needed. It is usually the subject teacher (when applied to educational institutions) or consultant (when applied to companies), being responsible for guiding, monitoring, negotiating, set deadlines and launch challenges.





Interação do mediador e equipes

Description: An industrial company that fabricates and commercializes 3 products in various regions/countries – multi-processor, liquid machine and mini-processor. Each industrial unit should buy from its suppliers 5 different products to build 5 components that are used in the assembly line for each product. The fabrication process is complex and it uses at least 3 different types of machines.

The clinic sells packs for skin cleaning and laser hair removal. In the assignment are used some features such as direct labor (beauticians), three types of equipment and materials (from three different suppliers). Teams can decide to invest in differentiation and attractiveness to offer services with higher quality and at a higher price.

Different types of scenarios (service and industry):

- Thermic boxes factory;
- Skateboards factory;
- Electrical appliances factory;
- Services Esthetic and beauty clinic;
- "Create your own scenario".

3.2. Holos/SimVenture

Country / partner: Portugal (INOVA+)

Website: http://holos.pt

Description: The goal of SimVenture is the creation and management of a small business. This business simulation based on the following key principles:

- Internalization;
- Authenticity;
- Sustainability;
- Flexible support for trainers / teachers.

These principles support learning and, more importantly, support the development of fundamental skills that make people more "employable". The work in simulated environments with monthly cycles, leads users to make decisions in all areas of business and receive feedback to perceive the



consequences of their decisions. Within the four key areas of Management (Organization, Sales and Marketing, Finance and Operations), numerous decisions can be taken every month. The challenge is to generate demand (market testing), sales and orders and build a successful company at the same time it supports a healthy working environment with the best human resources.

As it reduces the gap between theory and practice, this tool works on the basis of best practices. By making market prospection, getting to know their competitors and customers and defining an action plan based on results, can always be better than just guessing.

The virtual company allows users to manage their business within a maximum of 36 months.

It is an extremely versatile tool used in large-scale learning environments. This feature allows users to discover autonomously (making decisions and dealing with the respective consequences) how to create and run a business without fear of financial failure.

Ideal for those working individually or in groups, SimVenture allows users to develop critical skills of teamwork while managing their own virtual business. The game includes scenarios "ready to play" and recording and charging functions can be used to simulate real situations where users can simulate decisions with the respective consequences.

3.3. Corporation Inc.

Country / Partner: Romania, ASSIST Software

Website: http://jocuri.rol.ro/jocuri-2353-Corporatia_Inc.html



Description: This is a simulation game created by Corporatia Inc from Romania which is oriented to the entrepreneurs with low skills in order to check their knowledge in creation and organization



of a new business, giving them some tips. The game has three steps to accomplish: build the offices, hire the right guys for the job, hire and become researcher and unlock new stuff.

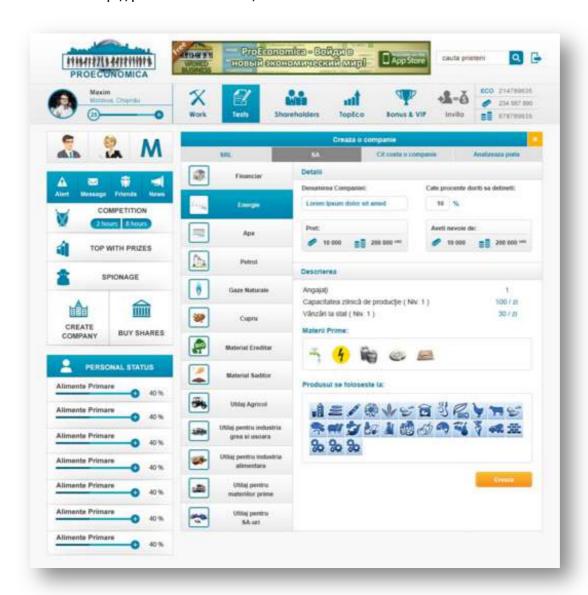
Assets:

- Allows to develop the entrepreneurial skills in distinct sectors of business
- Adapted for people that want to gain experience with business
- Give users some advices about how to grow the business

3.4. PROECONOMICA

Country / partner: Romania (ASSIST Software)

Website: http://proeconomica.com/



Description: ProEconomica is a browser-based economic simulator. Because it is primarily a simulator, ProEconomica focus on concepts found in reality (competition, raw materials, state, etc.).



Moreover, success in the virtual world ProEconomica can have effects in real life, because here in addition to develop your entrepreneurial skills and players can get real prizes.

ProEconomica is a virtual world where player can launch a virtual business, to get a real experience! This game is aimed to create a virtual business through users will gain a real experience. This is oriented to they who want to develop their entrepreneurial skills.

The game is an on-line economic simulator that comes with the solution for players and their business' development. ProEconomica offers players a virtual world. Players can start their virtual business and, in exchange, they get real experience!

Moreover, by having success in the virtual world ProEconomica users may have benefits in their real life also, because here they not only develop their entrepreneurial skills, but also may obtain real rewards. ProEconomica is a virtual world where players can launch a virtual business, in order to obtain real experience!

The objective: Players mission is to develop theirself and become the manager of at least a company. They have to take care of their virtual character, because he has certain necessities that players have to satisfy - food, appearance, hygiene, house, technique, luxury. In order to maintain their virtual character alive, they'll need financial resources that may obtain by managing a company, and also by accomplishing some works, competitions or by being hired at a company.

Assets (good points):

- Development the entrepreneurial skills
- Real economic situation simulation
- Advices about how to grow the business

3.5. Business Master

Country / partner: Austria (die Berater)

Website: http://www.schoolgames.at

Description: The game principle is a combination of Monopoly and Trivial Pursuit. In Austria, there is hardly a student or teacher who does not know these games. Therefore, the Business Master can easily be integrated into the classroom. Instead of buying streets it 's set up businesses instead of investing in houses players invest in his/her compan. The player can also convert his business into a limited company and can take it to the stock exchange.

Assets (good points):

 The game gets students to be better prepared for the demands of work life and improves their job opportunities.

3.6. The Blue Ocean Strategy Simulation (BOSS).

Country / Partner: France (FyG Consultores)





Website:

http://www.stratxsimulations.com/licensingsimulation/licensingsimulation/CommonRegistration.aspx

Description: The Blue Ocean Strategy Simulation (BOSS) is a business strategy simulation that allows participants to test new actions and methods for the real business world.

Objective: The aim of BOS is not to out-perform the competition in the existing industry, but to create a blue ocean or a new market place, thereby making the competition irrelevant.

The team objective (3 to 6 members) is to manage a fictitious company in the Game Console industry. Team will develop their Blue Ocean Strategy offerings using BOSS tools, such as:

- The Strategy Canvas;
- · The Value Curve;
- The Four Actions Framework;
- The ERRC Grid.

Also, each team's performance will be judged on:

- Profits generated;
- Revenue growth;
- · Market Share.

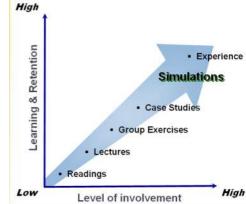
BOSS includes a maximum of nine periods, four rounds, two stages and one goal that is to maximize shareholder value.



- Round RED: Management of the existing "Red Ocean" product.
- Round Blue 1: Creation of a high value and low cost "Blue Ocean" product.
- Round Blue 2: Refining their offering and further unlocking demand through the right Strategic Price.
- Round Blue 3: Extending their Blue Ocean using Service and Delivery platforms.

Assets:

- BOSS is a fun and highly effective tool to lean and practice Blue Ocean Strategy.
- Participants will be much more ready to lead a BOSS initiative in their company.
- BOSS is the perfect tool to work on actual projects combining different business functions, such as:





R&D, Production, Marketing, Sales, Geographic Expansion and Corporate Initiatives.

It provides periodic reports of each round.

3.7. Juego para Emprendedores

Country / Partner: Spain (FyG Consultores)

Website: http://www.fundacionbancaja.es/jovenes/emprendedores/juegos/juego/juego.htm

Description: The game is not pretending to be an exact reflection of a firm's reality in all of its spheres, but to place the user into hypothetical situations which could occur in the firm on a daily basis.

This game tries to offer a training and entertainment service for entrepreneurs in such a manner that makes it possible for them to become owners of a firm. In practice it tests a participant, so he could take different decisions just as if he was the unique person in charge of



his firm. Depending on his decisions his commerce either evolves or not.

During the game, there are some questions and messages concerning the ongoing activity that appear. The participant, as a director, would have to decide what decision to take in each of the cases. He should also keep in mind that his decisions directly affect the way a firm is functioning.

At the same time his decisions produce changes of various graphs and markers. By virtue of this it becomes possible to check how they influence the general functioning of the firm. Apart from this, by the end of each month there are going to appear some informative messages keeping the participant in line with the progress and future perspectives of his firm.

There are series of markers and graphs informing about the current situation of the firm, such as:

- Time marker, showing the months of a year already passed (the game is being developed throughout a year)
- The income statement marker, indicating the numerical data of the income statement (reflects a resulting balance of 31/12 after processing the data obtained from regular monthly questions)
- Treasury marker, also showing a numerical data of the firm's checkbook (reflects the resulting balance after deducing expenses and investments)
- The market share graph, representing a presence in the market versus its competence
- The social climate graph, illustrates extend of contentment or discontentment of employees. In this way participant can see if his decisions are accepted or rejected by workers
- Facilities, information about the type of facilities and machinery selected
- Staff, type of human recourses available in the firm
- Price, information about the positioning of the projects costs.

Assets:



- Possibility of tracking the success of a virtual company
- Possibility to view the impact of a decision-making onto the company's progress
- Includes different aspects of the general functioning of a firm

3.8. Simula

Country / Partner: Spain (FyG Consultores)

Website: http://servicios.ipyme.org/simulador/intro.htm

Small description: This is a simulation game created by the Government of Spain which is principally oriented to the owners of small and medium size businesses in order to check their knowledge in creation and organization of projects, and at the same time helping them with a business management.

The game consists of various stages in which the participant is being mastering his management skills in order to reach the other levels and learn to correct mistakes present in it.



This game is of a sectorial character available both for entrepreneurs and not, willing to learn about critical aspects of creation and running a business project. In this first version of a game there are three sectors presented: Restaurant business, Commerce and Textile clothing.

SIMULA, in a friendly and easy to understand environment along with various tests, reproduces habitual situations that the entrepreneurs will be facing in their day by day activities with an objective of contributing to the achievement of a better management of their business.

Assets:

- Allows to develop the entrepreneurial skills in distinct sectors of business
- Adapted for both experts and people willing to start a business
- Helps to see the progress by virtue of a continuous testing

3.9. Fitness Gym by Company Game.

Country / Partner: Spain (FyG Consultores)

Website: http://talent.companygame.com/

Description: "Fitness Gym" is a simulator that offers from lower to higher level covering many aspects of business training with a realistic management experience.





It recreates the scenario of five different sports centres. The team (3 to 5 members) will have to make the decisions of a new business on a long term basis requires. It will happen in two stages:



PLANNING:

- Design the business.
- Create a different model from the competitors.
- A plan management politics.
- The necessary investment.
- And analyze the financial needs with the expected profitability.

After this stage is completed, the team will have a Business Plan on a 3-year basis that will reflect their strategy based on the following sections:

- · Demand.
- · Place.
- Activities.
- Marketing.
- · Organization.
- · Revenues.
- Results.
- · Evaluation.

COMPETING:

For the next years, participants have to manage your gym on a highly competitive environment and then show whether the designed sport centre is better to compete and if it allows the company to reach the objectives and forecasts.

Participants won't be allowed to see the features of the others sport centre not even the results of them.

If expectations are not fulfilled, the team should research for new options to change the structure of their business.

Assets:

- Motivation, Creativity and Innovation: having new ideas for creating new projects, considering the opportunity cost.
- Autonomy and Initiative: Take decisions by choosing the best option.
- Analysis and planning: Learn how to plan actions to reach the objective.



4. Conclusions

Based on the survey findings, the following conclusions are made:

- Level of awareness and experience: The findings show that strategic management games related to business skills is more acknowledged in larger companies, where they were reported to being used to better detect strategic competencies and key management for businesses. Nevertheless, BGame survey revealed that the gamification opportunities are still unknown for most companies, particularly SMEs. Most of the respondents had not heard of the gamification opportunities, let alone played one themselves.
- **Scenarios:** The respondents listed multiple options for potential scenarios, ranging from online shops to wholesale distributor or industry manufacturer.
- **Game customisation:** The respondents felt that ready scenarios would be useful, as they allow playing without having to spend a lot of resources into starting the game. However, they also felt strongly that in order for the game to be truly beneficial and relevant, it should be adjusted to their specific field.
- Managerial areas: The survey findings show that gamification can provide highest value for business areas such as teamwork promotion, delivering better learning opportunities and exchanging information, implementing strategy for knowledge management and boosting employee commitment and productivity.
- Player feedback: The participants feel like they should receive feedback in the game after each move they make and, consequently, reorient the targets for the following steps. The feedback should not, however, be exhaustive but intuitive, self-explanatory and easy-todigest.

5. Recommendations

The conclusions suggest that the following recommendations should be made:

- The game should pay special attention to the areas of teamwork promotion, delivering better learning opportunities and exchanging information, implementing strategy for knowledge management and boosting employee commitment and productivity.
- A hybrid solution between pre-set scenarios and customisation should be explored. This way the player can first practice with general scenario, but later begin to contribute variables as the game progresses. Alternatively, if the player does not have the interest to customise the scenario, they should be able to continue with the fixed variables.
- There should be different managerial aspects to choose from in the game, e.g. HR, product development or leadership.
- Every action and step made should result in immediate feedback, thus allowing player to adjust their strategy.



