
Integrating Business Simulations into Academic Innovation: Expectations and Implementation in a Case Study

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Abstract:

Purpose: The aim of this paper is to present the possibility of implementing business simulations in academic didactics in order to shape competences desired in the labour market. The article provides a characterisation of the competences sought in the labour market in the light of theory and empirical research. This is followed by a presentation of selected teaching methods that contribute to a better understanding of the business issues discussed by business students.

Design/Methodology/Approach: The study was based on quantitative (questionnaire) and qualitative (observation and discussion during the course) methods on attitudes of the students participating in business simulations game. This study was conducted in three phases based on opinion of students in Poland and Kosovo.

Findings: Empirical research has demonstrated that business simulations contribute to the acquisition of practical skills by participants. These skills include the development of analytical thinking, analysis of market mechanisms, teamwork, business language skills and working under time pressure. The results of the research indicate that BSGs are largely reflective of the conditions that will characterise future professional work. This can positively influence graduates' ability to find their way in the labour market through faster adaptation.

Practical Implications: The integration of BSG into the educational process may facilitate a more comprehensive understanding of previously conveyed knowledge and an enhanced awareness of the implications of decision-making in market contexts. This suggests that university graduates who have been exposed to BSG will be more likely to perform better in the labour market than those who have only absorbed theoretical knowledge from textbooks.

Originality/Value: The article highlights the importance of introducing innovative teaching methods into the educational process in response to the needs of modern students. Business simulation games prove to be an answer to these needs, allowing participants to immerse themselves in the real world of business, while at the same time applying the theoretical knowledge acquired.

Keywords: Business simulation, innovative teaching methods, practical skills.

JEL codes: M21, O15, A20.

Paper type: Case study.

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1. Introduction

The range of tools available at universities is both extensive and evolving. It encompasses traditional lectures and the utilisation of web-embedded, interactive, fully synchronised business process simulations related to the establishment and functioning of a company or the fulfilment of an employment role. Undoubtedly, traditional methods like lectures and textbooks are crucial for establishing the foundations of theory in practice developing business skills. However, achieving higher levels of critical thinking requires discussing, testing, reflecting, and adjusting one's knowledge.

From the perspective of both students and employers, it is becoming increasingly evident that there is a focus on making learning more practical. This entails striving to address problems that will arise in the future workplace, which will be the environment in which the future graduate will be functioning in a few years' time (Bizon, 2013). Providing students with an immersive and hands-on experience can effectively fill the gap between theory and practice (Popowska, 2018; Byusa *et al.*, 2022).

Therefore, there is a need to introduce digital technologies into the learning process, as generation Z is interested in less formal approach to getting education (Bach *et al.*, 2023). This is a generation, that was born with full access to technology and have completely different expectations of the education process (Binsztok *et al.*, 2023). It seems that learning happens when effective education strategies are being combined with technological tools, effectively and sometimes also efficiently enriching learning experiences (Antoniuk *et al.*, 2021).

The answer to those needs can be business simulation games (BSGs) that have gained attention for their ability to engage students and improve learning outcomes (Faisal *et al.*, 2022; Bach *et al.*, 2023). Research suggests that BSGs promote greater engagement and motivation and improve learning outcomes such as knowledge acquisition, cognitive and interactive skills, and behaviour.

Furthermore, BSGs have been found to enhance the employability skills of undergraduate business students, in line with the needs of employers, government and academia (Asiri *et al.*, 2017). However, barriers to the adoption of BSGs in teaching include concerns about suitability, risk, and resource availability (Rogmans, 2023). Overall, while BSGs present a promising framework for enhancing higher education, further research is required to evaluate their effectiveness and to identify future strategic directions for their development.

The aim of this paper is to present the possibility of implementing business simulations in academic didactics in order to shape competences desired in the labour market. In order to achieve this goal, it was decided to formulate the following research questions:

RQ1: Do business simulations contribute to the acquisition of practical skills by students?

RQ2: Do business simulations provide an approximation of the conditions of future professional work?

RQ3: Do business simulations promote team building by helping students to find their role in teams?

RQ4: Do business simulations motivate students to continue learning?

The next part of the article provides a characterisation of the competences sought in the labour market in the light of theory and empirical research. This is followed by a presentation of selected teaching methods that contribute to a better understanding of the business issues discussed by business students. Selected business simulations are described in detail and the benefits of their use are highlighted. The empirical part of the paper is based on a case study conducted among economics and management students.

2. Literature Review

2.1 Skills in Demand on the Labour Market

It is expected that the knowledge and skills acquired during higher education will contribute to the graduate's competitiveness in the labour market. The learning process facilitates the development of both hard and soft competences, which are highly sought-after in the labour market. In recent years, there has been an increase in discourse surrounding the importance of their sustainable development (Tripathy, 2020; Lamri and Lubart, 2023; Juhász *et al.*, 2023; Colombo and Marcato, 2023).

Furthermore, it is evident that the processes of digitalisation and automation are intensifying the necessity for flexible and soft skills in order to successfully navigate a multitude of professional challenges and tasks (Hazzan *et al.*, 2020; Obermayer *et al.*, 2023). In 2011, Microsoft Partners in Learning (2011) pioneered the use of employer surveys to ascertain the skills most highly valued by employers. The results demonstrated that collaboration, professional skills, ICT skills, problem solving, innovation, self-awareness and self-regulation were the most highly rated.

According to Fajaryati *et al.* (2020) literature review, candidates should have communication, teamwork, problem-solving and technological skills. Other studies also provide similar conclusions (Lazikova *et al.*, 2022; Dębkowska *et al.*, 2022; Polakova *et al.*, 2023).

Based on a The Skills Employers Demand report (2023) there are most demand skills as communication, teamwork/collaboration, problem solving/critical thinking, self-motivation, professionalism, customer service, leadership/people management, integrity, creativity.

There is empirical evidence that employers are increasingly demanding and rewarding social skills (e.g., leadership and communication, while continuing to reward cognitive skills (Josten *et al.*, 2024).

As reported in research conducted in Kosovo the skills of graduates are inversely proportional to the challenges, i.e. the more skilled graduates are, the easier it is for them to enter the labour market, and vice versa. Individuals entering the labour market or preparing for it may develop soft and hard skills also through engagement with business simulations.

The competencies that can be achieved as a result of participation in such simulations are likely to be in line with the requirements of the labour market. While these skills may not currently be recognised by employers, they have the potential to become important factors in future competitiveness (Laurisz *et al.*, 2024).

Yet a majority of students do not have sufficient self-reflection and self-awareness to analyse which skills they have developed during their university education (Papp *et al.*, 2023). At the same time the graduates that have been more proactive and participated in non-formal education have shown better performance in their jobs (Beqiri and Grima, 2024).

2.2 Innovative Approach to Teaching in Higher Education

Those engaged in the field of education place considerable emphasis on the importance of creativity and innovation as means of modernising and improving the quality of education (Simplicio, 2000; Cachia *et al.*, 2010). Ferrari *et al.* (2009) argue that creativity and innovation in education are not just an opportunity, but a necessity.

Herrington and Herrington (2006) presented authentic learning principles that educators can apply when creating their learning activities (Figure 1).

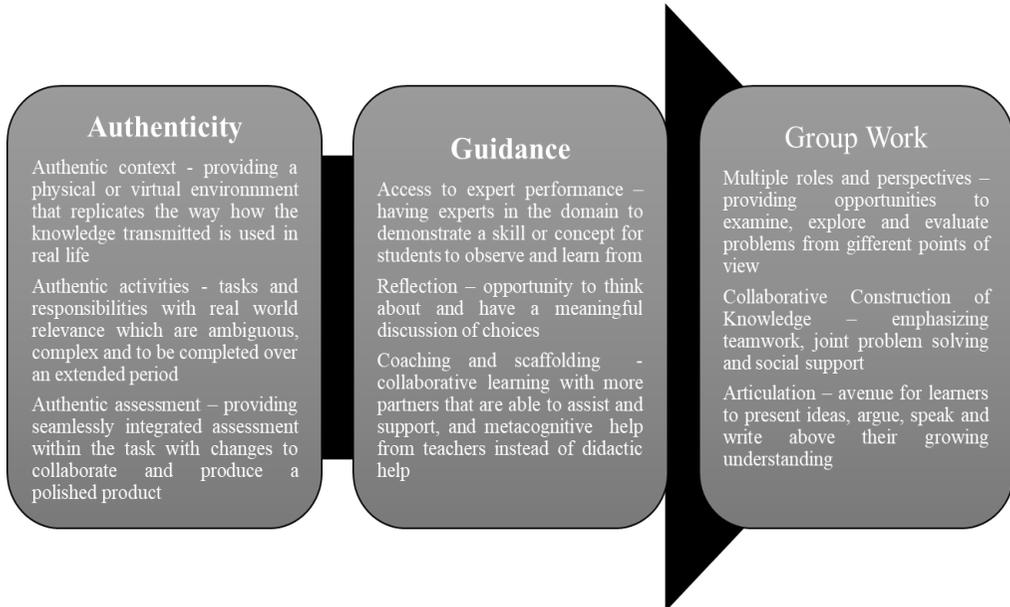
Genuine innovation in the field of education necessitates a fundamental transformation in both format and methodology (Simplicio, 2000). One of the ways to change teachers' approach is experiential learning as a process of knowledge construction that entails a dynamic interplay between reflection and action.

During the experiential learning process, the learner engages in a continuous, iterative exploration that adapts to the learning context and content. Concrete experiences serve as the foundation for observations and reflections, which are then integrated into abstract concepts.

This facilitates the generation of new insights for action, which can then be actively tested, thereby guiding the creation of new experiences. In accordance with Kolb's experiential learning theory (Kolb, 1984:28), ideas are not fixed and immutable

elements of thought; rather, they are formed and re-formed through experience. Consequently, learning can be defined as a process whereby concepts derived from and continuously modified by experience are established.

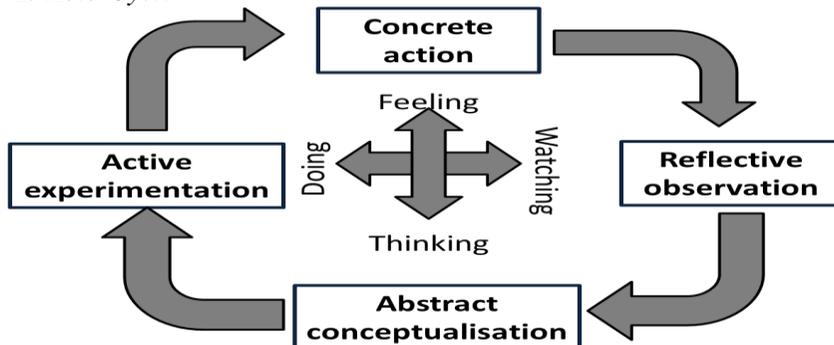
Figure 1. *The factors and principles of the authentic learning framework*



Source: Own elaboration by Herington and Herington (2006).

Innovative methods including webinars, e-learning, simulation games, case studies, video response training (Stanik, 2014) are compatible with the Kolb cycle (Figure 2), which is based on six propositions that are shared by these scholars (Kolb and Kolb, 2005):

Figure 2. *Kolb Cycle*



Source: Own elaboration by Kolb (1984).

1. Learning is best when conceived as a process, not in terms of outcomes. To improve learning in higher education, the primary focus should be on engaging students in a process that best enhances their learning — a process that includes feedback on the effectiveness of their learning efforts.
2. All learning is relearning. Learning is best facilitated by a process that draws out the students' beliefs and ideas about a topic so that they can be examined, tested, and integrated with new, more refined ideas.
3. Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world. Conflict, differences, and disagreement are what drive the learning process. In the process of learning one is called upon to move back and forth between opposing modes of reflection and action and feeling and thinking.
4. Learning is a holistic process of adaptation to the world. Not just the result of cognition, learning involves the integrated functioning of the total person – thinking, feeling, perceiving, and behaving.
5. Learning results from synergetic transactions between the person and the environment. In Piaget's terms, learning occurs through equilibration of the dialectic processes of assimilating new experiences into existing concepts and accommodating existing concepts to new experience.
6. Learning is the process of creating knowledge. Experiential learning theory proposes a constructivist theory of learning whereby social knowledge is created and recreated in the personal knowledge of the learner. This stands in contrast to the “transmission” model on which much current educational practice is based, where preexisting fixed ideas are transmitted to the learner.

The Kolb Cycle can be viewed from two perspectives: that of the entire game, or that of individual decision-making rounds. The initial phase of the cycle entails students engaging in deliberation regarding prospective courses of action for their virtual company. Subsequently, they proceed to engage in concrete decision-making, which is then entered into the designated decision areas within the player panel.

The constructivist approach to learning posits that students construct new knowledge based on their existing experiences, abilities, and prior knowledge, while the teacher builds on their pre-existing knowledge. The constructivist perspective also emphasises the importance of social interaction in the learning process, particularly through the use of strategy games that require teamwork (Gaweł and Wach-Kąkolewicz, 2016).

The second phase of the cycle, which is related to reflective observation, begins when, at the conclusion of each round of the game, students are presented with the economic effects of their decisions and are required to analyse them in order to determine whether they should continue with their current strategy or implement a different one.

The subsequent phase of decision-making is the abstract conceptualisation stage, during which students must determine whether their conclusions were accurate. At this point, any necessary corrections can be made based on the preceding analysis. This culminates in the final stage of the Kolb cycle, active experimentation. By observing and analysing the results of their specific actions, students can make a decision to either correct or develop the initial strategy, thus completing the next round of decision-making.

Additionally, they can identify their strengths and weaknesses, as well as their successes and areas for improvement (Gaweł and Kąkolewicz, 2016; Gaweł and Wach, 2017; Cadotte, 2014).

Many students perceive that their academic programmes have equipped them with a set of transferable skills that will prove beneficial throughout their professional careers. However, the specific skills developed by students vary considerably depending on the subject area in question (Supply and demand for higher-level skills, 2015).

2.3 The Characteristics of Business Simulations and the Benefits they Bring

Decision-making simulation games are a valuable tool for developing the competencies that are essential for success in entrepreneurial endeavours. Such games foster readiness to act, encourage prompt yet informed and accountable decision-making, and cultivate the opportunity to make decisions expeditiously, thoughtfully, and responsibly. Furthermore, they facilitate the cultivation of social competencies, including collaboration, active listening, and the acceptance of group norms and rules (Balcerak, 2017; Wawrzeńczyk-Kulik, 2013; Gaweł, 2018).

Business simulations develop the capacity for analysis, the formulation of alternative decisions, the modification of the strategy employed, and the cultivation of critical thinking (Gaweł, 2014). The additional benefit of simulation decision-making games is the possibility to immediately observe the consequences of the trainee's choices and behaviour (Smołucha, 2016). Innovative method of teaching in higher educational institutions create a situation as close to the real conditions and settings of the target specialists' professional activity as it is possible (Aliyev, 2016).

The integration of simulation into the teaching process transforms the perception of didactics and introduces entirely new teaching methods, which are increasingly becoming essential in today's world (Caruso, 2019; Chernikova *et al.*, 2020; Binsztok *et al.*, 2023). Although this method seems new to many, research shows that business simulations have been used for more than 50 years (Wellington *et al.*, 1995; Faria, 2001).

However, computer-based business simulations were introduced in the early 2000 (Stephen, Parente, Brown, 2002; Wolfe, 1997). The research of Martin and McEvoy

(2003) among 165 students of Tourism indicate that simulation was considered an effective learning tool for helping students apply principles and concepts from finance, accounting, service quality, marketing, and human resource management within the tourism and hospitality industry. It can be assumed that one of the benefits that BSG can provide are realism, student involvement and control.

It is common practice within the domain of gaming to situate game scenarios within a fantasy world. Simulation games are defined as those games in which scenarios are based on the actual tasks, situations and behaviours that they are designed to simulate (Kapp *et al.*, 2014). A significant aspect that contributes to the effectiveness of simulation games in the learning process is the ability to explore phenomena and situations that would otherwise be inaccessible in their natural environment.

Simulations reproduce real-world processes and situations that are analogous to those in which students will subsequently engage in the professional sphere. This enables the acquisition of experience and the enhancement of problem-solving abilities without the concomitant risk of erroneous decision-making.

The opportunity to observe and analyse the consequences of actions taken represents one of the key advantages of game-based education, which is not available in traditional teaching methods. Simulations games can be classified into three broad categories, as follows (Alsaaty, 2023):

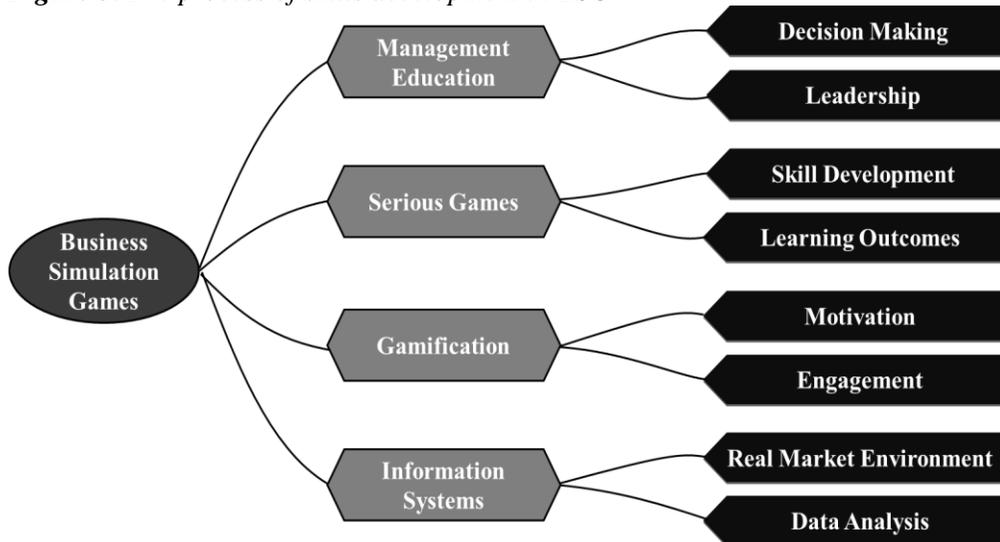
- major simulations (i.e., company-level in which the decision areas are about key organizational functions),
- functional-level simulations (i.e., the decision area is a specific organizational function such as production),
- operational-level simulations (i.e., the decision area is a specific operating task such as inventory control).

A major simulation is generally a comprehensive computer-oriented online program that enables learners either individually or in teams to compete with each other or with other participants who use the same simulation. Such competitiveness has the potential to positively influence motivation and engagement among students.

Through empirical research, four factors were identified as influencing the acquisition of skills when participating in a simulation game. These are collaboration and sharing of ideas, authenticity of context, clear objectives and guidelines, and game design elements (Safiena and Goh, 2024).

As the outcome of the using BSG in educational process there can be observed several skills development (Figure 3). It can be posited that, in comparison to other conventional pedagogical instruments, business simulation games are more efficacious in facilitating the acquisition of competencies.

Figure 3. *The process of skills development in BSG*



Source: Own elaboration.

BSG can serve as a source of analogies and an initiator of strategic discourse, thereby fostering collective creativity among participants when its debriefing is conducted in a manner that encourages critical, lateral, and reflective thinking (Balcerak, 2016).

In this process, the teacher does not provide ready-made solutions for the students' virtual companies, nor does he or she share information that should be memorised. Instead, the students are permitted to proceed independently. This approach is informed by both the philosophy behind strategy games and the understanding that, during gameplay, there is no single optimal strategy for a virtual enterprise to win.

The outcome of a game is the result of two factors: the effective running of the company in question and the actions of competing companies in the game. This means that repeating the same sequence of managerial decisions in two consecutive games may produce different results depending on the actions of competitors at the time.

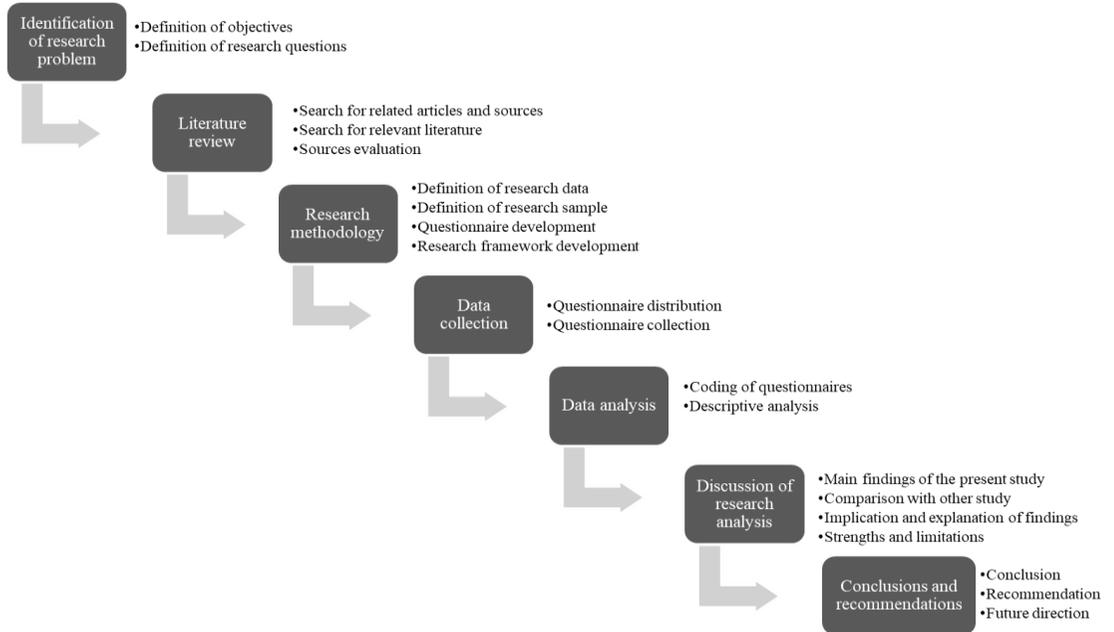
Therefore, the role of the teacher is that of a facilitator, coordinating activities, supporting students and organising their learning environment. It is not within the teacher's remit to suggest solutions.

According to Hagar studies (2024), the future of introducing more business simulations into the curriculum depends on the willingness of students to continue to use such experiential learning tools in the future, along with whisper marketing in a way that relates to their experience.

3. Research Methodology

The study was based on quantitative (questionnaire) and qualitative (observation and discussion during the course) methods (Figure 4). Classroom observation is helpful to obtain instant feedback on game experience and enable a cognitive analysis of students as players to verbalise their thinking and decision-making process during discussions (Faisal *et al.*, 2022).

Figure 4. Research methodology



Source: Own elaboration.

This study was conducted in three phases:

- 1) Phase 1: survey conducted among a group of students, 3rd year of Management, University of Opole (Poland), winter semester 2023/2024 – intensive course with BSG implementation, which took 30 hours within one week.
- 2) Phase 2: survey conducted among a group of students, 2nd year of Economy, University of Opole (Poland), winter semester 2023/2024 – regular course with BSG implementation, which took the whole semester (30 hours within 4 months).
- 3) Phase 3: survey conducted among a control group of students of Haxhi Zeka University in Peja (Kosovo) in July 2024.

Course consisted of several stages of activities. Initially, the students were to be introduced to a manual on simulation, a knowledge that was later enriched during

the lectures with issues related to the theoretical backgrounds of market functioning (Figure 5).

Figure 5. Teaching process within the training module



Source: Own elaboration.

The questionnaire for the 1st and 2nd phases consisted of 7 questions and for the 3rd phase – 17 questions. In the survey some questions (such as teamworking, practical approach, skills development and expectation) were measured by using a Likert scale from 1 (strongly disagree) to 5 (strongly agree). The authors included additional measures like open-ended questions and provided clear instructions and context to the participants.

Students completed an online questionnaire on Google Form platforms. A total of 59 responses were collected (22 Management students and 15 Economy students of University of Opole, and 22 students of University in Peja). The relatively small sample size was due to the fact that the business simulation game was used for the first time in the teaching process at the Faculty of Economics. Consequently, it was decided to investigate the effectiveness of this teaching method. The research has a pilot character.

4. Research Results

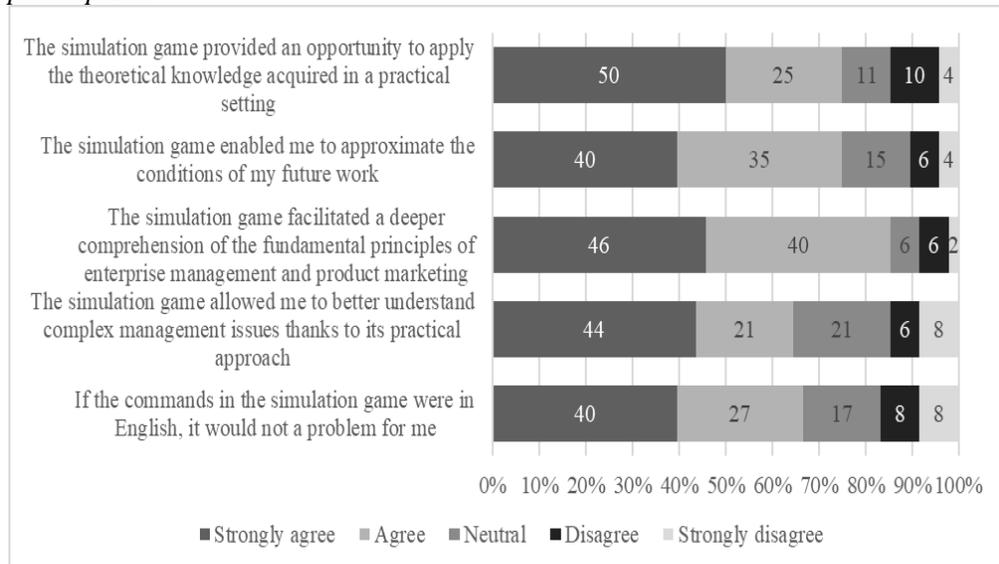
In the academic year 2023/2024, a comprehensive business simulation using the appropriate computer software was used for the first time at the Faculty of Economics at the University of Opole. In order to determine the benefits of the introduction of such teaching methods, a pilot survey of course participants has been carried out.

Figure 6 illustrates the responses of the respondents in relation to the perceived benefits of participating in a business simulation. With regard to the practical approach to management through the BSG, the majority of students (75%) confirmed that the simulation game enabled them to apply the theoretical knowledge they had gained in practice.

The respondents indicated that the BSG enabled them to approximate the conditions of the duties they would perform in their future workplaces (75% agreed). The majority of respondents (85.4%) indicated that the simulation game contributed to their understanding of the essence of business management in terms of marketing a product. Additionally, 64.6% of respondents stated that the simulation game allowed

for a better understanding of complex management issues through a practical approach.

Figure 6. Benefits of using a business simulation game, as reported by course participants



Source: Own elaboration.

This may indicate the usefulness of using business simulations in academic didactics. Another issue that students were asked about was whether English was a difficulty for them. As the need to use English to a small extent, but nevertheless posed a challenge to the simulation participants, this indicates the need to pay attention to the possibility of increasing the number of hours devoted to foreign language instruction and/or subjects taught in a foreign language.

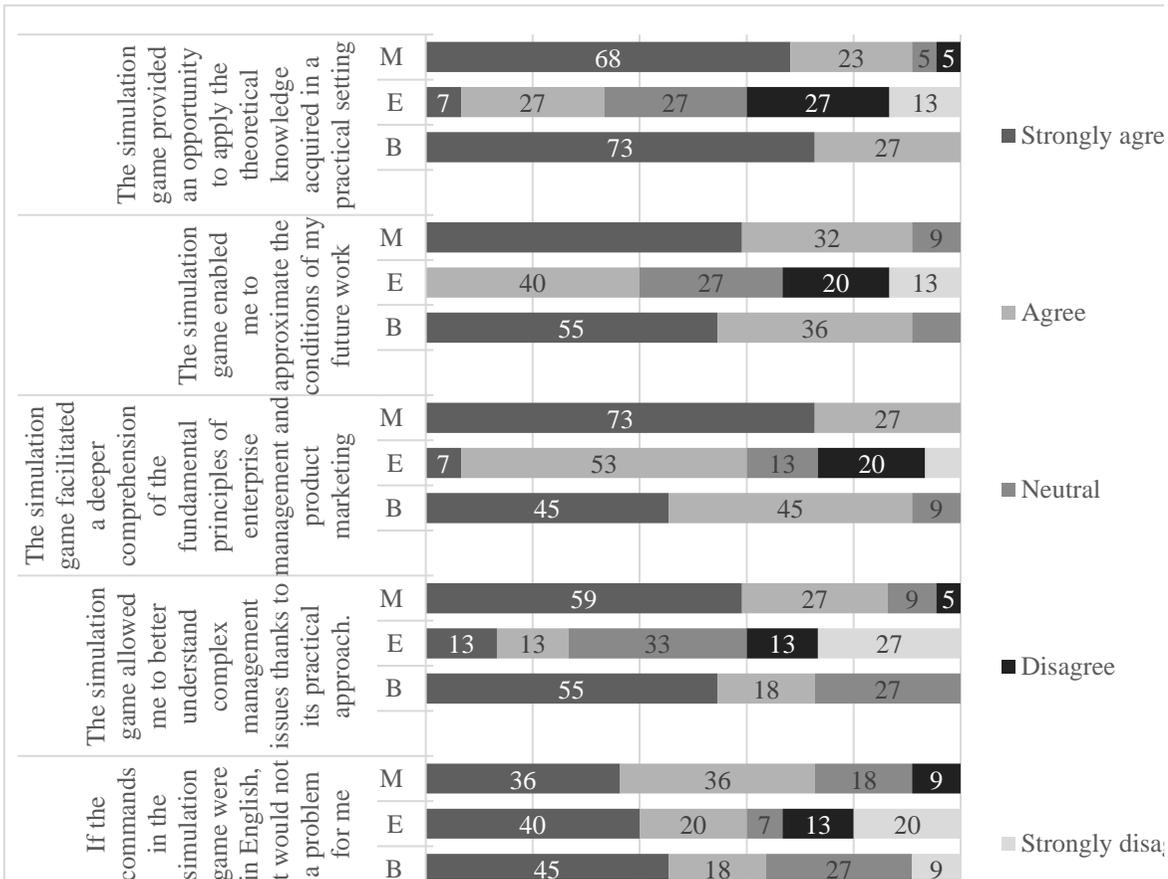
Given the considerable diversity of the courses in which the students participated, it was considered most appropriate to analyse the responses by course (Figure 7). It is evident that the management students demonstrated a greater willingness to engage with this type of experience and achieved more benefits than the economics student group.

This may be attributed to the fact that the content of the simulation is more consistent with the issues covered in other management courses, whereas the economics students had less exposure to these issues prior to the simulation. Consequently, some tasks may have proved more challenging for them.

Another issue that was raised was the extent to which team-building skills and the ability to identify one's role within a team are valued by employers. An analysis of the subject literature reveals that this is indeed one of the key factors considered by

employers. The responses of the simulation participants regarding the development of team skills confirm the positive impact of such development on the ability to listen to and analyse the opinions of team members (79.2% of responses).

Figure 7. Benefits of using a business simulation game by participants of the Management (M), Economics (E) and Business Management (B) courses



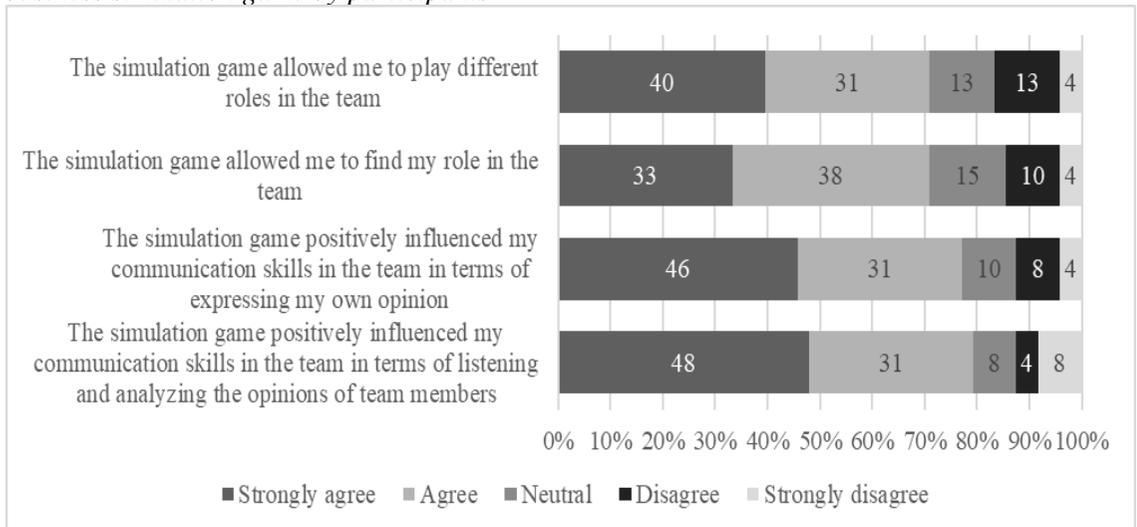
Source: Own elaboration.

The majority of students (77.1%) indicated that the BSG facilitated the development of their ability to express their own opinion on the topic of managing a product launch.

To a somewhat lesser extent, students were able to ascertain their role within the team and endeavour to assume different roles, namely that of a decision-maker and executor of specific tasks (70.8% of indications). It is evident that simulation games facilitate the development of the skills required for effective teamwork.

Similarly, as in the preceding case, economics students indicated that they had achieved team-building skills to a lesser extent through BSG. The greatest challenge for future economists is to identify an appropriate role within a team and to collaborate effectively with others in that role. This may be indicative of a shift in social behaviour, whereby there is a move away from collectivisation of work towards a more individualistic approach. It is therefore proposed that additional subjects be introduced with a focus on team-building, including, for example, human resource management.

Figure 8. *Opinions on the development of communication during the use of a business simulation game by participants*

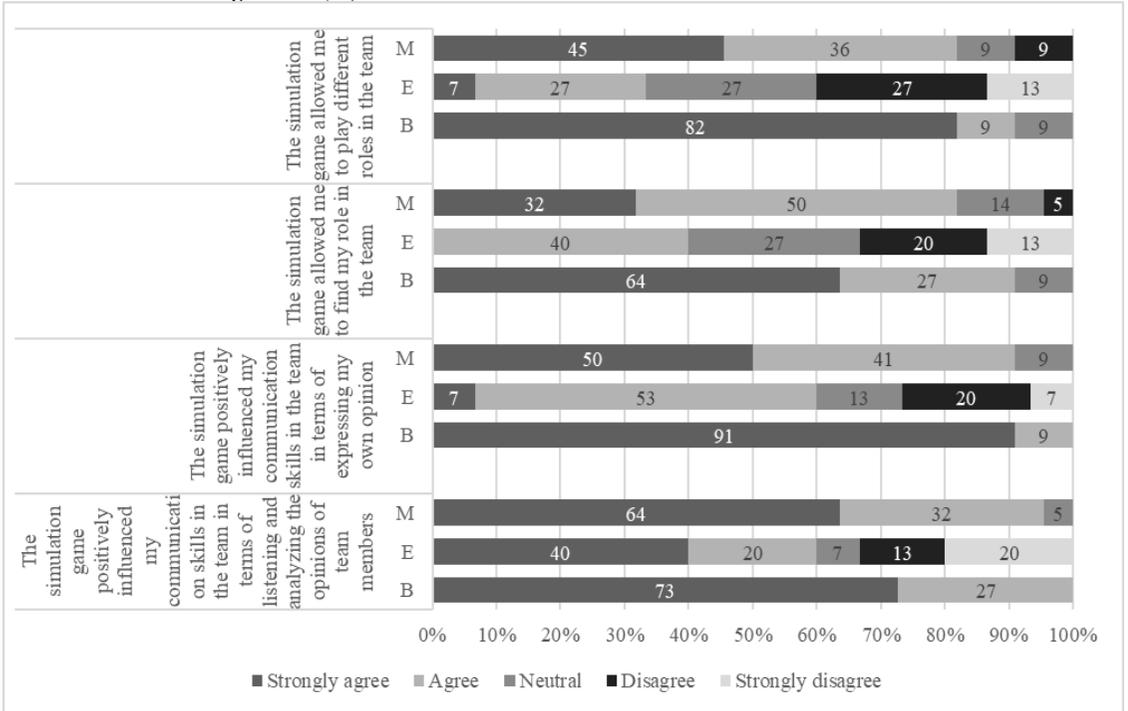


Source: *Own elaboration.*

In order to assess the impact of the BSG on students' general skill development, a series of questions were presented to them on a range of topics, including the evolution of analytical thinking, the capacity to recognise the implications of decisions, the ability to work under time pressure, the significance of language skills, and the value of lifelong learning. In order to meet the demands of the market, the simulation game should facilitate the growth of analytical thinking. Consequently, 89.6% of the students who participated in activities involving the BSG expressed agreement with this assertion.

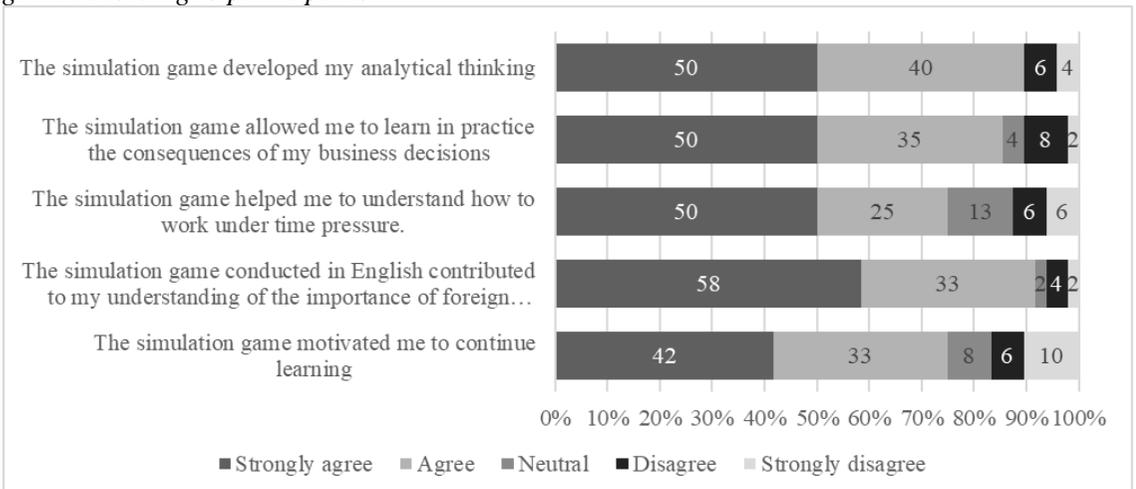
Moreover, 85.4% of respondents indicated that the BSG had a positive impact on their comprehension of the potential outcomes of their decisions. The majority of respondents (75%) demonstrated an understanding of the importance of working under time pressure. Another noteworthy finding is that engagement with the BSG conducted in English led participants to recognise the significance of language proficiency in the globalised contemporary context, as evidenced by a 91.6% response rate.

Figure 9. Opinions on the development of communication during the use of a business simulation game by participants in the Management (M), Economics (E) and Business Management (B) courses



Source: Own elaboration.

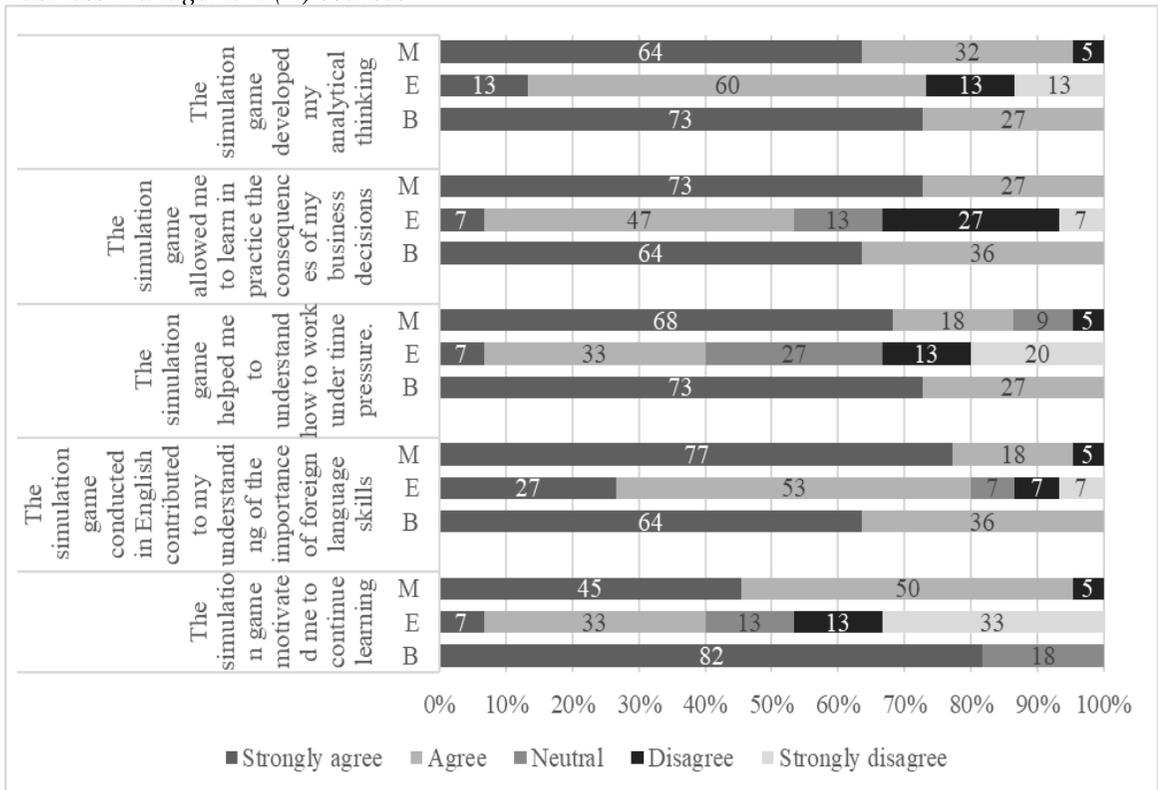
Figure 10. Opinions on the development of skills by using a business simulation game according to participants



Source: Own elaboration.

Similarly, the simulation games demonstrated to participants the importance of ongoing knowledge acquisition and skill development, regardless of one's current level of expertise (76% of indications). It can thus be concluded that, despite the awareness of the necessity for continuous development that the programme appears to have instilled in its participants, there still seems to be a conviction that success can be achieved based on existing knowledge. Therefore, the hypothesis that the implementation of such simulation games is beneficial is substantiated.

Figure 11. Opinions on the development of skills through the use of a business simulation game by participants in the Management (M), Economics (E) and Business Management (B) courses



Source: Own elaboration.

A similar pattern emerges when the responses are disaggregated by student group. Once more, economics students demonstrated the least enthusiasm for the skills they had acquired through BSG (Figure 11).

In order to gain a deeper understanding of students' attitudes towards participating in the BSG, the survey included open-ended questions. These related to difficulties encountered during the course of the game, potential avenues for improvement, and

prospective benefits not covered in the preceding closed questions. The difficulties identified can be classified into several categories:

1. Those that are inevitable in a team setting, such as communication challenges and conflict, which are common aspects of real-world working environments.
2. Those resulting from time constraints (this difficulty was identified by some students from Group One, who implemented the activities in a cumulative form), which indicates a need to develop skills in working under time pressure.
3. These arose from language challenges, given that the simulation was prepared in English. This reinforces the argument for including subjects taught in a foreign language in the curriculum, as previously mentioned.
4. Initial difficulties encountered when using the BSG application. At the outset of the game, the majority of participants encountered difficulties in navigating the previously unfamiliar software. However, due to the digital proficiency characteristic of Generation Z, this issue was swiftly resolved.

Some statements made by participants in the BSG indicate a high degree of uncertainty in a situation that is new to them. This may be a result of insufficient self-confidence, which may lead to an expectation of support from the facilitators at every stage. This ultimately leads to a lack of self-efficacy with regard to decision-making and action. This is an important competence that is required in the labour market.

Some respondents indicated a preference for receiving detailed instructions when confronted with challenges. It is important to note, however, that managers are expected to analyse, draw conclusions and make decisions autonomously, including those involving risk. The findings indicate that students are inadequately prepared for situations that require independent decision-making, despite the fact that this skill is essential for success in their desired roles.

One of the preliminary tasks assigned to the students was to read the instructions for the game independently. A review of the observations and opinions expressed by multiple respondents in the survey suggests a deficiency in the practice of comprehensive preparation for classes, including the reading of content assigned by the instructor.

In response to the difficulties previously outlined concerning the necessity for content analysis in English, students proposed that the material be translated into their native language. This raises the question of whether it is the responsibility of lecturers to provide assistance in this regard. It must be acknowledged that a significant number of the programmes used in companies are only available in English.

It is therefore important to recognise that studying is a time for students to be challenged, to extend their capabilities beyond their comfort zone and to test their

strengths and weaknesses in a secure environment. This is in contrast to the real-world situation in which students may face financial losses due to poor decision-making. It is therefore essential that students are encouraged to embrace the challenge of learning. Some participants expressed similar concerns, although not all.

In conclusion, the simulation was effective in eliciting emotional responses, which is a positive outcome. In the current post-pandemic era, it is challenging to achieve the same level of student engagement as was observed in this instance. It is inevitable that not all students will be satisfied with the final grade, given that not everyone will necessarily have enjoyed the experience. Such a response is, in fact, to be expected.

It is evident that students who adopt a book-based or memory-based learning approach may find it challenging to transition from a state of passive knowledge acquisition to one of active knowledge application. Nevertheless, we believe that such an experience is necessary and extremely valuable when the potential consequences of making an incorrect decision are not significant. It is evident that some students are not yet aware of this, but it remains our view that it is the responsibility of the lecturers to prepare them for this.

5. Discussion and Conclusions

One of the principal objectives of higher education is to equip students with the skills required in the contemporary labour market, encompassing both hard and soft skills. An analysis of the literature on the subject reveals that business simulation games can contribute to more effective knowledge acquisition in practice, the development of social interaction and the adaptation of teaching methods to the expectations of the recipients, who are representatives of generation Z (as this generation requires a fundamentally different approach to learning).

This is also in line with Krasulak's (2015) findings, which confirm the different behaviour and attitudes of people entering the labour market. We agree with Behluli and team (2022) that it is recommended that students take more in-depth study programmes outside their field of study, including more elective courses.

According to Anderson and Lawton (2009) participating in simulation games shows positive effect on the attitudes of participants, however its efficiency regarding cognitive learning benefits not as big as expected. It maybe results of inadequate substantive preparation, inappropriate attitude resulting from the necessity to adapt to new condition and expectation, wrong speed of decision-making, etc.

According to a study by Wolnowska and Jasinski (2019), students participating in the simulation game highly rated its usefulness in the learning process and made comparisons between their knowledge level before and after the game. At the same

time our research results showed that students do not have sufficient self-reflection and self-awareness to analyse which of their skills have developed during their university education, which is similar to reflection of Papp *et al.* (2023).

Empirical research has demonstrated that business simulations contribute to the acquisition of practical skills by participants. These skills include the development of analytical thinking, analysis of market mechanisms, teamwork, business language skills and working under time pressure.

This conclusion is also supported by the findings of the research conducted by Dudziak and Stoma (2020). It is worthy of note that the first and third groups were exposed to the course in a markedly cumulative manner, which, on the one hand, enabled them to "enter the world of simulation" to a greater extent and thus engage more profoundly.

For the students, this entailed a considerable investment of time and effort, including additional work outside of the classroom. It is evident that the students exhibited varying degrees of coping mechanisms in response to this approach to learning. This methodology can be perceived as an additional element that prepares them for the demands of professional life. It is noteworthy that the vast majority of students demonstrated exceptional proficiency not only in their analytical, decision-making, and conclusion-making abilities within the simulation but also in their public speaking abilities in English.

The second group, which implemented the subject using BSG in the summer semester, operated under conditions that were entirely distinct from those of the first group. The programme was conducted on a weekly basis throughout the academic semester. On the one hand, this afforded students more time to become familiar with the issues and to be better prepared to participate in the class.

However, on the other hand, the game did not become the focal point for students at any point, which may have been the reason for the group's comparatively lower level of commitment to the tasks. It is therefore proposed that BSGs should be conducted in a more cumulative format (for example, over the course of half a semester of classes), which will facilitate greater participant involvement and, consequently, more effective achievement of learning outcomes.

The results of the research indicate that BSGs are largely reflective of the conditions that will characterise future professional work. This can positively influence graduates' ability to find their way in the labour market through faster adaptation (Müller *et al.*, 2016; Constantino *et al.*, 2012). By underscoring the importance of social interactions, BSGs facilitate team-building and the identification of one's role within the team. This is also consistent with the findings of other researchers (Sutcliffe, 2002).

A cause for concern is that participants in BSGs appear to be less motivated to continue learning than was previously assumed.

The group of respondents (n = 11) who had no prior experience of BSG expressed high levels of enthusiasm for the potential use of this didactic method in their educational programme. Similarly, among the respondents who had previously participated in BSG, 87.2% expressed a desire to engage in similar simulation games in the future. It is thus evident that there is a necessity to enhance the appeal of didactic activities through the introduction of innovative methodologies for their implementation.

The integration of BSG into the educational process may facilitate a more comprehensive understanding of previously conveyed knowledge and an enhanced awareness of the implications of decision-making in market contexts. This suggests that university graduates who have been exposed to BSG will be more likely to perform better in the labour market than those who have only absorbed theoretical knowledge from textbooks.

The present research is limited by the temporal scope of the study, as the responses were collected immediately following the conclusion of the course. This timeframe did not allow for the participants to apply the acquired knowledge and skills in the labour market, and the findings are therefore based on their perceptions and predictions.

To gain a more comprehensive understanding of the long-term impact of BSG on graduates' careers, it is recommended that the research be extended to include participants within a few years after graduation.

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