CAPSIM Business Simulation Experiential Learning in AHIBS MBA Program – A Survey

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Abstract: Business simulation games are a great way to learn about business skills. When it comes to learning retention, research shows that business simulation outperforms other pedagogical methods. As a result, including business simulation games in academic courses is strongly advised. Hence, the objective of this survey is to measure satisfaction with the business simulation-based pedagogical method in postgraduate academic delivery. A descriptive quantitative method was employed in this survey to measure the usefulness and satisfaction with CAPSIM Business Simulation among MBA students from Azman Hashim International Business School. Guided by self-developed research instruments, 125 MBA students participated in the online survey. The findings indicated that the vast majority of MBA students supported and exhibited a high level of usefulness and satisfaction with the learning offered by CAPSIM Business simulation. This implies that the experiential learning offered via CAPSIM Business has been significant and influential in learning the real-world business scenarios and the introduction of business simulation experiential learning across educational delivery is highly relevant and contemporary.

Keywords: AHIBS MBA, CAPSIM Business Simulation, Experiential Learning

Type: Research paper

1. Introduction

In 1985, Dan Smith, a Professor from Kellogg University founded CAPSIM to provide business education and training to executives. Taking advantage of the internet expansion of the late 1990s, the company entered the academic arena to reach business professors and their students. The company continues to develop new programs, simulations, and assessments to support the needs of business education around the world. CAPSIM has since become the market leader in online business simulation technology, providing products and services every year to 135,000 participants at more than 900 academic and corporate clients in over 60 countries around the world. CAPSIM's commitment is to nurture and cultivate the next generation of business leaders through innovative simulation-based solutions and has been highlighted by various organizations in the education technology industry. CAPSIM has been featured as one of EdTech Digest's "10 Companies to Watch" in 2019. In addition, CAPSIM business simulations and assessments have also been recognized by the EdTech Digest Cool Tool Awards and SIIA CODiE Awards honors given to people and solutions that are enriching the lives of learners everywhere through technology. Some of the top names using CAPSIM business simulation include Harvard University, Monash University, Citi Group, and Samsung. CAPSIM has been recognized on the platform of AACSB (Advance Collegiate Schools of Business) which is the highest accreditation standard of achievement for business schools worldwide.

Azman Hashim International Business School (AHIBS) is always committed to opening up opportunities and delivering the best learning experience for the students. One of the commitments in exposing its students to as many opportunities as possible especially in bridging the academia and the real and practical world is being reflected through AHIBS continuous investments in experiential learning software. This important investment is aimed to enable the students to apply knowledge from several courses to achieve the highest learning experiences by involving and engaging themselves in CAPSIM business simulation. However, the experience of students on the ground should be surveyed to reveal the usefulness and learning experience of the learning target. Hence, the objective of this survey is to measure satisfaction with the business simulation-based pedagogical method in postgraduate academic delivery.

CAPSIM Business Simulation was introduced to AHIBS in the year 2017 when a team of Ph.D. and DBA students from AHIBS participated in the Annual Malaysian Experiential Business Learning Challenge, The Legion Business Challenge 2017, and were one of the finalists from a total of 40 teams. The students found the simulation interesting and felt it can be used in AHIBS. Professor Dr. Wan Khairuzzaman, Dean of AHIBS in 2017 discovered the usefulness of CAPSIM Business Simulation and laid plans to introduce the experiential business simulation as a teaching and learning method in the MBA program. After acknowledging that the CAPSIM Business Simulation tool can have a significant impact on the teaching and learning activity for AHIBS students, an official journey of business simulation-based experiential learning began at AHIBS and further supported by AHIBS management team.

The CAPSIM Business Simulation was introduced in several courses including Strategic Management, Designing Strategic Planning, and Strategic Financial Management. Various levels of complexities such as CAPSIM Foundation with three different options (standard, recession, and growth) and CAPSIM Capstone (with greater complexities) were incorporated in the teaching and learning according to the cognitive, affective, and psychomotor skills development requirements of the courses. This standard was agreed at the beginning of the year by AHIBS to ensure students are exposed to the different levels of complexities when using the business simulation.

2. Literature Review

Kolb (1984) established Experiential Learning Theory (ELT), which describes learning as a process in which knowledge is generated via the transformation of experience. Learning, according to ELT, should be viewed as a process rather than a set of outcomes. Learning is a lifelong process based on personal experience. The learner's experiences are constantly used to generate knowledge and put it to the test. Experiential Learning necessitates learners' ability to actively engage in new experiences, freely and without bias. They must be able to think about and observe their own experiences from a variety of angles. They must be able to develop concepts that combine their observations into logically coherent theories, and they must be able to use these theories to make decisions and solve issues. ELT promotes an integrated approach to learning that incorporates experience, perception, cognition, and behavior (Kolb, 1984). As a result, instructors have expressed an interest in employing business simulation games as a teaching tool in various courses in recent years. Students can use business simulation games in conjunction with their classes to incorporate the concepts they learned in the course of their educational journey. The business simulation is designed to be learner-centered and offers rapid feedback on their business decisions. MBA students will benefit from this experiential learning since they will improve multiple skills through a single platform. Participants learn how to work in groups, build leadership skills, evaluate and apply market data for strategic decision-making, and enhance their financial and commercial judgment.

CAPSIM Business Simulation offers the learners a realistic understanding of what it's like to run a company while facilitating teaching and learning activities. The simulation entails the direct execution of management's primary functions, such as planning, organizing, leading, and controlling. The simulation was designed to simulate a real organization in a business setting, so it's no wonder that the students had to use all these functions in making their decisions. As a result, the students were required to develop plans to be competitive and fulfill the organization's vision, mission and objectives. This is also applicable in the real world, where planning plays a significant part in organizational management and leadership. Since this simulation necessitated a lot of thinking, preparation, trial and error, and technique, it assists the educators to develop the skills needed by the students to succeed in real life and in a real business setting, which is in line with the needs of the competitive business environment. But there is much to be gained from this experiential learning where the students can learn from their success or failures in different situations and scenarios programmed in the simulation. Table 1 displays the skills acquisition benefits CAPSIM Business Simulation for learners:

Skills	Benefits
Strategic Leadership Skills	• Understand the importance of focus in strategic implementation. • Plan strategically to maximize resources available to them and to be able to forecast the consequences of the decisions they make. • Choose the right tactics to support strategic intent. • Stay on strategy under pressure in a fast-paced, competitive environment. • Evaluate competitors' strategies and their implementation.
Overall Business Acumen	• Experience the impact of each functional department of the business on the organization. • Analyze and react to external market demands. • Interpret business results and market data, draw intelligence from raw numbers. • Practice operating outside of a "silo" mindset.
Competence in Financial Skills	• Read and understand balance sheets, income statements, and cash flow statements. • Use the information to improve business decision-making. • Discover what the key financial ratios indicate about the client's business as well as competitors' businesses.
Awareness of Cross-Functional Alignment	• Set and adhere to goals, ground rules, and team processes. • Practice decision-making as a team across all key areas of a business. • Understand the importance of cross-functional alignment. • Become mutually accountable for decisions. • Manage conflict.
Communication in the language of Business	• Experience running a complete business. • Learn to read business reports that show clear correlations between management decisions and outcomes. • Consider and decide from a full range of strategy-based decision-making options, try new tactics, test unfamiliar strategic paradigms, and take risks in a risk-free environment. • Teamwork and interpersonal skills development. • The Game is played by teams, not individuals, and fosters teamwork and decision-making. Each team must learn to work together, and in so doing, learn about themselves and their roles in their organizations.

• The exchange of ideas will facilitate their interpersonal skills.

Learners in a business simulation are exposed to real-world decision-making circumstances. Students develop the ability to make rapid and effective judgments as a result of conquering obstacles in business simulation games, and even to foresee future business events and their probable consequences. Business students learn to apply their theoretical knowledge (gleaned through studying several functional areas of management) to simulate business scenarios, comprehend cross-functional connections, and develop an understanding of the business world. Students' theoretical knowledge is enhanced, and they become more unique and employable as a result of business simulation. Business simulation games are a great way to learn about business skills. When it comes to learning retention, research shows that business simulation outperforms other pedagogical methods. As a result, including business simulation games in academic courses is strongly advised. In this vein, the Critical Imperatives to Integration of CAPSIM Business Simulation in AHIBS Academic Program are as shown in Table 2:

Table 2: Critical Imperatives to Integration of CAPSIM Business Simulation in AHIBS Academic Program

Critical Imperative	**Academic Integration**
Bridging University and the Workplace	Connecting and making practical the theory learned at University in multiple subjects over several years
Speedier and More Effective Start in the Workplace	Supporting students in making a more effective transition and running start into the workplace
Fast-tracking employee, future leader, and executive development	Supporting students in making a more effective transition and running start into the workplace
Superior Training ROI using Training Best Practice	Alignment with international best practices in corporate training program delivery. Universal acceptance today that student learning experience is significantly enhanced by the integration of experiential learning with classroom learning.
Alignment with Overseas Corporate Training	Providing business simulation learning experience for local employees who transfer to or move on to overseas companies that have already integrated business simulation learning in their courses
Business Competitiveness	Improving the business acumen of a company's people will boost productivity, cost management, commercial capability, and competitiveness
Supports Accreditation process with AACSB	Using CAPSIM Business Simulation which is an endorsed program by Advance Collegiate Schools of Business (AACSB) will support the current process for accreditation.

3. Research Methodology

A. Research context

The research was conducted at AHIBS, Universiti Teknologi Malaysia. In order to collect the data, a survey method was employed. The questionnaire form was designed through Google Forms. An

electronic mediated data collection method was found to be a useful user interface to reach more respondents and to increase the response rate.

B. Population and sampling

MBA students at AHIBS, Universiti Teknologi Malaysia were the targeted population for this study. A convenience sampling method has been chosen as the sampling technique for this research. Since the targeted population was MBA students of the institution who are officially registered for the MBA program, the respondents were conveniently chosen whereby each member from the population knows about being the subject of the sample. The population of the study was estimated to be around 300 students and the sample drawn was from active MBA students.

C. Measures

A self-developed set of questions were employed in this survey. Specifically, questions were asked in the following areas: The first measurement was focused on the features and service. This area was measuring whether online simulation had an efficient structure and content, its comprehensiveness and organization, ease of accessibility, navigation, and responsiveness, and efficient support and continuous communication throughout the simulation-based experiential business learning period. The second focus was on transferable skills. This area was evaluating whether the simulation-based experiential business learning has brought the reality of the business world into the classroom and allowed me to learn and interact with a realistic mind of the work environment, teaches the student when to be cooperative and when to be competitive in making critical decisions specific to the business mission, provided the student with an environment that mirrors real business challenges and let the student see the consequences of their actions and cross-functional effects of their decisions immediately, helped the student to invoke their critical thinking abilities by pushing the student beyond their existing boundaries and enabled the students to experience and learn a lot of hard and soft business skills in an integrated manner. The last part emphasized the overall perception of simulation-based experiential business learning should be continued in the AHIBS curriculum. In answering these questions, students were asked to locate their responses in the continuum of five points Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5).

D. Data analysis

The research aimed to understand the perception of the MBA students about the inclusion of CAPSIM Business Simulation in the curriculum delivery. Specifically, their satisfaction levels with the business simulation were measured. Hence, descriptive statistics were performed using SPSS version 22 to calculate central tendency measures including minimum, maximum, mean value, variance, and standard deviation.

4. Results

A. Sample Analysis

Data collection lasted for one month where 125 MBA students responded to the survey, indicating a response rate of 40 percent. According to Israel (1992), for a population of 500 at a 10 percent precision level, the sample size required is 83. Therefore, the samples of 125 were sufficient to represent the population (Israel, 1992). Table 3 represents the demographic information of the respondents. The analysis is reported in frequency and percentage form.

Table 3. Sample Analysis

Profile of Respondents		Frequency	%
Gender	Male	56	44.8
	Female	69	55.2
	Total	125	100%
Ethnic	Malay	63	50.4
	Chinese	41	32.8
	Indian	17	13.6
	Others	4	3.2
	Total	125	100%
Courses	Designing Strategic Planning	38	30.4
	Strategic Financial Management	43	34.4
	Strategic Management	44	35.2

The majority of respondents were female (55.2%). In terms of ethnicity, Malay students were the majority who participated in the research (50.4%) followed by Chinese students (32.8%) and Indian students (13.6%). In terms of the courses, there was almost equal participation from all three courses where CAPSIM Business Simulation was used in the teaching and learning activity.

B. Internal Consistency

The internal consistency test of the constructs extracted from the pilot test revealed that Cronbach's alpha values ranged between 0.818 and 0.966 (Nunnally, 1978). Therefore, all the measures were reliable. The questions were confirmed to be valid for further data collection. The Cronbach's alpha value is shown in Table 4.

Table 4. Internal Consistency

Dimensions	Cronbach's Alpha
Features and Service	0.818
Transferable Skills	0.939
Overall Perception	0.966

C. Descriptive Statistics

Table 5 depicts the mean score and standard deviation by items for all variables including features and service, transferable skills, and overall perception. The mean for the items of the constructs ranged from a lower bound of 4.120 to an upper bound of 4.344, whereas their standard deviation ranged between 0.645 and 0.869.

Table 5. Descriptive Statistics

Survey Items	Min	Max	Mean	Standard Deviation
Features and Service				
1. CAPSIM online simulation structure and content were comprehensive and well organized	1.000	5.000	4.264	0.834
2. CAPSIM online simulation was easy to access, navigate and was stable and responsive	1.000	5.000	4.256	0.694
3. CAPSIM provided efficient support and continuous communication throughout the simulation-based experiential business learning period.	1.000	5.000	4.120	0.725
Average features and service score:			4.213	0.645
Transferable Skills				
1. This simulation-based experiential business learning has brought the reality of the business world into the classroom and allowed me to learn and interact with a realistic mind of the work environment	1.000	5.000	4.224	0.869
2. This simulation-based experiential business learning teaches the student when to be cooperative and when to be competitive in making critical decisions specific to the business mission	1.000	5.000	4.328	0.727
3. This simulation-based experiential business learning provided the student with an environment that mirrors real business challenges and let the student see the consequences of their actions and cross-functional effects of their decisions immediately.	1.000	5.000	4.256	0.772
4. This simulation-based experiential business learning helped the student to invoke their critical thinking abilities by pushing the student beyond their existing boundaries	1.000	5.000	4.280	0.679
5. I enjoyed this simulation-based experiential business learning which enabled the students to experience and learn a lot of hard and soft business skills in an integrated manner	1.000	5.000	4.264	0.824
Average transferable skills score:			4.270	0.697
Overall Perception				
1. I would recommend this simulation-based experiential business learning to my fellow students and friends	1.000	5.000	4.328	0.770
2. I would recommend this simulation-based experiential business learning be continued in the AHIBS curriculum.	1.000	5.000	4.344	0.784
Average overall perceptions score:			4.336	0.764

In the survey, students were requested to indicate the usefulness of features and services for each question. The overall mean for feature and service was 4.213. This explains that feature and service to a greater extent has helped the students to navigate the simulation in the most user-friendly manner while attempting to perform the business simulation. Thus, it can be concluded that the CAPSIM Business Simulation feature and service encourages the students to actively engage in their experiential learning.

CAPSIM Business Simulation was aimed to create transferable skills among the students. These skills including strategic leadership skills, overall business acumen, competence in financial skills, awareness of cross-functional alignment, and communication in the language of business. The descriptive statistics (as shown in Table 5) provided adequate evidence that CAPSIM Business Simulation possesses the ability to create and embed transferable skills among the learners. The mean value for each item was well above 4.000 indicating stronger agreeableness among the students. The overall mean of 4.270 posits that overall, CAPSIM Business Simulation succeeded in developing transferable skills among the students.

In order to measure overall perception about CAPSIM Business Simulation, students were presented with two items. Both items recorded a mean value above 4.00. This indicates that generally, the students perceive CAPSIM Business Simulation to be useful in their experiential learning. The mean value of 4.336 which is the highest in comparison to features and services and also transferable skills provided adequate empirical evidence to conclude that CAPSIM Business Simulation is one of the pedagogical methods that can improve the learning experience among the students.

5. Conclusion

Traditional teaching philosophy in higher education has been influenced by the notion that knowledge acquisition occurs when information is transferred from the teacher (as a knowledge broker), to the student (the knowledge consumer). Furthermore, the conventional paradigm assumed that the fundamental aim of institutions was to expose students to a pre-defined body of knowledge. While these traditional assumptions have served us well in the past, they do longer adequately fulfill the demands of today's classroom. The issue is that providing experiential learning that is both instructional sound and engaging is difficult. Providing realistic, "real world" experiences may take time and be difficult. The challenge is considerably more difficult for institutions that are responsible for serving larger numbers of students than ever before. As a result, a rising number of educators are turning to immersive learning simulations as a way to deliver real experiential learning opportunities that are engaging and effective.

This research indicates that CAPSIM Business Simulation is effective and also influential in providing an experiential learning experience to the learners. It was evident that the learners could relate themselves to the reality of the business world and more importantly, it has given a platform for the students to bridge and apply the theory into practice. This is also consistent with past findings which have reported similar results. Although this is an incremental knowledge to the body of literature involving experiential learning, it is important to note that the adoption and application of simulation-based learning are rather low in today’s educational environments. Nevertheless, the rapid advancement of teaching and learning technologies and the students’ digital lifestyle can be accounted for in introducing and adapting to simulation-based learning in curriculum delivery. This further re-affirms that students with the ability to operate a technology would favor technology-mediated teaching and learning activities driven by their desire to match

the experiences to learner's digital lifestyle.

Despite these findings, the research suffers several limitations. Firstly, the respondents of the survey are drawn from a specific program in a specific institution. Hence, generalization and interpretation of findings should be done carefully by understanding the attributes and characteristics of the context of the subjects. Secondly, the current research employed a cross-sectional survey, hence, the variation in simulation-based learning satisfaction over a period was not investigated in this research. It is recommended that future researchers shall consider a longitudinal approach to overcome this limitation. Apart from that, it will be significant to compare traditional learning methods and simulation-based learning methods to identify the commonalities and differences to generate stronger insights and interpretations of the same. Enlarging the sample size is another avenue for future research to improve the predictive validity of the current research and its findings. In addition, the simulation can also be applied in other research areas such as among employees at different levels for experiential learning that can enhance productivity.

References

Israel, G. D. (1992). *Determining Sample Size*. Florida: University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences.

Nunnally, J. C. (1978). *Psychometric Theory*. New York, USA: McGraw-Hill.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.