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The "organization" as an interdisciplinary learning zone

Using a strategic game to integrate learning about supply chain management and advertising

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Abstract

Purpose – The research study seeks to explore the relationship among strategic gaming, the learning organization model and approach, and transfer of learning as key success strategies for improved individual and organizational performance and sustainable competitive advantage. This research aims to identify and elaborate on the strategic integration of interdisciplinary organizational areas leading to the development of a learning organization.

Design/methodology/approach – The research uses a cross-sectoral case study approach to learning by focusing on the newly designed Advertising-SCM (Ad-SCM) simulation consisting of a strategic organizational game where experiential learning in organizational practice was emphasized and, subsequently, student learning outcome assessment results were analyzed.

Findings – The Ad-SCM simulation game project strengthened the interdisciplinary business education for the learners by preparing them to connect to the corporate world effectively through the use of strategic gaming that modeled learning organization practice and transfer of knowledge, skills, attitudes and job relevant qualities to excel in the workplace. Interdisciplinary strategic games are valuable tools for learning and knowledge management within and across organizations, and need to be further investigated.

Research limitations/implications – The research is useful for educators to try interdisciplinary, innovative projects to reinforce learning across all organizational disciplines in an inter-organizational setting, and improve organizational performance for a sustainable competitive advantage. The research is of great value to industry professionals as it motivates critical thinking through the use of the "learning organization" as an interdisciplinary learning zone and investigates the key issues in cross-sectoral business management areas.

Practical implications – Interdisciplinary strategic gaming enables industry involvement to build up cross-disciplinary management exchanges between employees and provides real-life case scenarios for interdisciplinary research projects. This research explores the possibility of transfer of learning during the individual's academic pursuits leading to the reduction in training costs and improved return on investment for organization in the future.

Originality/value – The paper utilizes an innovative research stream highlighting the relationship among the use of strategic gaming, becoming a learning organization and transfer of learning for effective learning and knowledge management.

Keywords Strategic game, Learning organizations, Management games, Simulation, Ad-SCM Experiential Lab Organization Game, Supply chain management, Advertising

Paper type Case study

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Introduction

Organizational strategic gaming is effective in creating elaborate solutions for the issues of both individual behavioral control and collaborative strategy techniques.

Strategic gaming gained popularity way back in 1944 when von Neumann and Morgenstern (1944), in their book, *Theory of Games and Economic Behavior*, emphasized the mathematical theory of games of strategy. There has been a surge of interest in the study of competition in the presence of strategic complementarities in networked organizations, where systems competition is important, like in software (Vives, 2005). Organizational strategy games can link major organizational functions and objectives and hence, they are very effective in educational environments as well.

Research suggests that in learning organizations there should be a complete synchronization and integration of knowledge and learning between organizational business strategies, and what is being taught in the business schools today (Buhler, 2002; Dougherty, 2004; Velada *et al.*, 2007) because the first transfer of learning happens when an individual joins the business world after graduation. Strategic organizational gaming methodologies and techniques can serve to reduce gaps in learning between what is expected to excel in organizations today and the current business education practices (Weldy, 2009). Implementing the integrative learning curve between organizations and education can effectively facilitate learning and knowledge management, and is described as an organizational – educational strategy for making improvements in organizational performance and providing a sustainable competitive advantage, yet many organizations and educational institutions fall short of success in either area.

In the interaction between organizations and businesses, our business education today is traditionally considered conservative. From the education perspective, there is a need and an opportunity for a joint coordinated approach of academicians and researchers to think in interdisciplinary terms, for example, an educational focus on advertising and effective supply chain management, leading to a "learning organization" approach. The concept of "learning organization", which is defined as a valuable tool for facilitating learning and knowledge management (Weldy, 2009) is strengthened through the use of strategic gaming in organizations and educational environments, thus leading to improved organizational learning and performance. This research paper explores the application of strategic gaming in organizations by focusing on the description and implementation of the newly designed Advertising and SCM laboratory where experiential learning organizational practice was emphasized and subsequently, student learning outcomes were analyzed.

The research study focuses on the challenging implementation of a learning organization approach by integrating two different and non-related areas of business education – supply chain management (SCM) and advertising. It is often a challenge for academia to teach the subjects of advertising and SCM, and sensitize the students (from different backgrounds and subject interest areas) about the interaction between the areas of advertising and SCM. There are business simulation strategic games available in SCM to teach industrial production and distribution systems like "The Beer Game" (a role-playing simulation game developed by Systems Dynamics Group at the Massachusetts Institute of Technology), "The Siemens Briefcase Game" (another supply chain game developed by Siemens, but not commercially available), and "The Harvard Business School's Interactive Online Simulation Game" (developed in 2004 to help students manage the complexities of a global supply chain and make key supply chain management decisions in a mobile phone company). However, none of these simulation games can be applied to illustrate the commonalities and differences in the

areas of advertising and SCM together. Hence, the key task is to ensure that the students learn and integrate both advertising and SCM concepts. This has attracted a great deal of interest and created notable challenges for academics.

The paper describes the newly designed Advertising and SCM (Ad-SCM) laboratory as a case study to illustrate the "learning organization" model and the use of "strategic gaming" for facilitating effective learning and improvements in knowledge management performance. The case study is designed to enhance the transfer of learning by simulating the real-life business environments in the form of Ad-SCM experiential lab where experiential learning organizational practice was emphasized and subsequently, student learning results were analyzed.

Research methodology

The research draws on a cross-sectoral Case Study approach, where two business management areas were strategically integrated by using the Ad-SCM experiential lab organizational game for an advertising course over a two-year period from Fall 2008-Fall 2010. The case study approach was used as the main strategy of inquiry in preference of strategies of focus groups, ethnographic research, phenomenology, etc. The case study approach was preferred over the others because of the lack of literature about integrating the inter-disciplinary areas of advertising and SCM and because it fits with the learning organization model approach emphasizing on the real-life business example and transfer of learning from the educational world to the business organization. The nature of the investigation utilized in the study is exploratory and the case study gives an opportunity of studying in a natural setting by facilitating an investigation of "context" as described by von Krogh *et al.* (2000), with an added ability to capture a holistic view of a social phenomenon (Yin, 1994).

The case study described in this paper constitutes a preliminary research project whereby the strategic gaming approach is added to the inter-disciplinary areas to highlight the overall learning experience. This research acknowledges the presence of Hawthorne effect, which implies that people in an experimental group behave differently and perform better when they receive attention because they respond to the demands of the situation / experiment. Advocates of the Hawthorne effect (Campbell and Stanley, 1966, Tuckman, 1988) suggested the inclusion of a control group in order to ensure that the experimental treatment is making the difference to the dependent variable, rather than uncontrolled events, thereby maintaining the validity and credibility of the research findings. The Ad-SCM case research in this study has not incorporated the control group study and this may be a research limitation. However, the action research approach has a different view of the Hawthorne effect (Coombs and Smith, 2003), which advocates the importance of the relationships between the researcher and the subjects for achieving successful research outcomes (Coombs and Smith, 2003). Accordingly this case study approach uses participatory action research, where " [. . .] people become capable of jointly producing the flow of actions that make up social episodes and in the structures of which social relations have their immanent being" (Harré, 1993, p. 26). Coombs and Smith's (2003) research places the Hawthorne effect in the context of very different research paradigms such as "participatory action research" which invokes a very different social setting.

Learning organization and transfer of learning

The learning organizational literature clearly emphasizes learning facilitation, knowledge management, collaborative involvement and shared values leading to both individual and collective learning (Watkins and Marsick, 1996; Garvin, 1993). This research study used the Ad-SCM experiential lab organizational game in which the learning organization model formed the core of experiential learning to further strengthen the important role of learning transfer (Garavaglia, 1993; Saks, 2002; Gumuseli and Ergin, 2002). The Ad-SCM research paper highlights the transfer of learning as being generalized to the job and maintained over a period of time, through the transfer of knowledge, skills, attitudes and job relevant qualities to the workplace.

Reasons for selecting two business areas of advertising and SCM for Ad-SCM case study

Firms are increasingly thinking in terms of competing as a part of a supply chain against other supply chains offering more or less the same product assortment (Christopher, 1998). Advertising Industry has complex supply chains, both for study and research purposes. Globalization and technology advances enforced the global view of the business environment as a chain of suppliers which promoted the concept of Supply Chain Management (SCM) for managing the relationship and the synergy between them (Al-Turki *et al.*, 2008). SCM by nature is integrative and intricate; as a result, it is impossible to address all aspects of this subject at one time (Johnson and Pyke, 2000), and adding to that is the high level of complexity of the common problems associated with supply chains (Chan *et al.*, 2002). Advertising, on the other hand, is an integral part of western socio-economic systems. In our complex world, advertising has evolved into a vital communications system for both consumers and businesses. The subject areas of advertising and supply chain management (SCM) are integrated deeply through complex structures, complex decision making processes involved at every stage and above all, psychological nuances involved in both. However, these areas are not related in the minds of students and even professors, to an extent. In real-life situations, there is a very little to no interaction between advertising and SCM industry professionals because "advertising" is considered to be a "soft" management stream while "SCM" is considered to be a hard-core management area. When the marketing professors are questioned about these areas of study, it is found that not many of them have undertaken researches in the joint areas of advertising and SCM. Academicians realize the commonalities in these two areas only when they are probed deeper. Due to reasons cited previously, these business areas of advertising and SCM were targeted through the implementation of Ad-SCM experiential strategy game.

Case study approach for "Strategic Gaming" in the context of "Learning Organizations"

The Ad-SCM case study method used experiential simulation strategy games and the "learning organization" model as a pedagogical method to facilitate transfer of learning, enrich classroom discussions and enhance students' learning in interdisciplinary education at both undergraduate and graduate levels. From the case study perspective, the Yin (1994) approach was adopted as a guiding schema, whose components are listed in the following:

- the case study's strategic questions – as illustrated by the Ad-SCM game in three phases;
- its proposition, if any – as depicted through Phases I to III of Ad-SCM game;

- its unit(s) of analysis – as shown by the students' assessments, team dynamics, lessons learned and evolution of SCM thinking;
- the logic linking the data and the case study propositions – as illustrated through the results; and
- the criteria for interpreting the findings – through the usage of learners' learning styles, preference for teaching strategies, team experience, effectiveness and overall feedback.

The cross-sectoral case study approach is illustrated through the Ad-SCM experiential lab game and is performed through the following distinct stages:

(1) *Pre-step*: Since Fall 2008, data were collected on 161 students in a Historically Black College and University (HBCU). The sample consists of 74.0 percent African-American students, 18.6 percent Caucasian students, 6.2 percent Asian students and 1.2 percent Hispanic students. These 161 students were subjected to the Solomon-Felder Index of Learning Styles (ILS), given by Solomon and Felder (1999). ILS has four dimensions. First, active/reflective (A-R) dimension shows how students prefer to process information; active learners learn best by doing things and are likely to say, "Let's try it out and see how it works." In contrast, reflective learners think about the topic first and process information through introspection. Second, the visual/verbal (V-V) dimension refers to how sensory information is most effectively perceived. Visual learners remember best what they see, like pictures, diagrams, and flow charts, while verbal learners remember best what they hear and read, like words, written and spoken (Felder, 1993; Solomon and Felder, 1999). Third, the sensing/intuitive (S-I) learning dimension identifies the type of information the student preferentially perceives. Sensing students like sight, sound, and physical sensation and are good with detail and memorizing facts. They also like a connection to the real world, whereas intuitive students like memories, ideas, and insights and prefer discovering possibilities and relationships (Felder, 1993; Solomon and Felder, 1999). Finally, the sequential / global (S-G) learning dimension shows how the student progresses toward understanding. Sequential students gain understanding in linear steps and follow logical stepwise paths in finding solutions. In contrast, global students are holistic in their approach to learning; they suddenly "get it" (Felder and Solomon, 2000).

(2) *Pre-analysis*: This step provides an analysis of the learning styles for our students, who were found strong on reflective (out of A-R dimension), verbal (out of V-V dimension), intuitive (out of S-I dimension), and global (out of S-G dimension) learning dimensions. The sample was skewed towards African-American population as it was conducted in a HBCU.

(3) *Main steps*: In order to accommodate the previous learning styles towards advertising and SCM education, students were exposed to a Ad-SCM simulation experiential lab game project and subsequently, the challenges and the key learning outcomes were identified and analyzed, along with recommendations for further implementations vis-à-vis students' learning styles.

(4) *Post steps*: This is characterized by the "reflective cross-sectoral Ad-SCM experiential lab game" case study inquiry method whereby the results are

analyzed and three techniques of reflection (Mezirow, 1991) are utilized. Content reflection supports thinking about the important issues; process reflection focuses on the strategies, procedures and the way things are performed; and premise reflection critiques underlying assumptions.

Ad-SCM experiential lab case study project

As a part of the "Advertising" course in a historically black college and university (HBCU), an Ad-SCM experiential lab case study project was implemented during Fall 2008 to Fall 2010. HBCU set up provided a unique dimension to this Ad-SCM case study project due to the implementation of an innovative "reflective" education method to a diverse student population.

A brief history and background of the advertising industry for Ad-SCM experiential lab game

Many companies have in-house advertising agencies but still it is preferable to hire and use outside ad agencies in order to provide the client with the services of highly skilled individuals who are specialists in their chosen fields. Some ad agencies are full-service agencies, which offer its clients a full range of marketing, communications, and promotions services, including planning, creating, and producing the advertising; performing research; and selecting media (Belch and Belch, 2009) thus integrating both ends of the supply chain, right from the client, client's business partners on the upstream side to the retailers, distributors, dealers, customers, and end-users on the downstream side of SCM. Account management is the link between the ad agency and its clients. The account executive is responsible for understanding the advertiser's marketing and promotions needs and interpreting them to agency personnel (Belch and Belch, 2009). Marketing services department may include account planners who are individuals that gather information that is relevant to the client's product or service and can be used in the development of the creative strategy as well as other aspects of the integrated marketing communications campaign (Belch and Belch, 2009). Creative services' individuals conceive the ideas for the ads and write the headlines, sub-heads, and body copy, are known as copywriters. For print ads, the art director and graphic designers prepare layouts, while for TV commercials, the layout is known as a storyboard, a sequence of frames or panels that depict the commercial in still form (Belch and Belch, 2009). Creative boutiques are small ad agencies that provide only creative services but do not have media, research, or account planning capabilities. Media specialist companies specialize in the buying of media, particularly radio and television time (Belch and Belch, 2009).

Implementation of the Ad-SCM experiential lab game case study project

Students were divided into the following teams – two clients representing different industries (one "electronics" giant and the other as "quick service restaurant" company), one full service ad agency (with a team of one account planner, one account executive, one research person for copy testing, two copywriters, one creative head and one media specialist), two creative boutiques, one media specialist company, and two production companies. These teams signified the supply chain relationships within advertising industry. The goal of Ad-SCM experiential lab game case study project was to satisfy the clients' needs along with increasing sales for the product or service.

Sales data were obtained by mapping the purchase intentions from the advertising class as end-users for the product or service. The target audience is the entire class and not merely the instructor or invited reviewer. The teams sold their product/service through the developed content first to the client, and then to the entire class as the target audience.

In Project Phase I, the teams developed the client's needs matrix and further developed strategies for the client's product/service. Thereafter, the teams developed the creative strategies, designed print ads, developed television ads, interactive and social media ads and using technology and media to integrate various media environments.

In Project Phase II, the teams interact among themselves and the client company for an approval by the client. They make presentations to the client and answer questions. The client approves or disapproves the work with suggested changes. The teams implement changes and present their work again for final approval.

In Project Phase III, the consumer or the end-user participates. In our case, the class is our target audience. The creative and media strategy is presented to the class. The entire class helps in the evaluation of the ad-content through ranking team presentations, content and delivery. Finally, the professor shares the audience perceptions and ranking to the teams along with the feedback and the lessons learned. The phases of the Ad-SCM project are given in Figure 1.

Team dynamics, lessons learned and evolution of SCM thinking

In Figure 1, it is evident that the advertising class progress from Ad-SCM Game Phases I to III is dynamic and there are issues that teams overcome at each stage. Hence, there is a "Lessons Learned" document prepared at every stage of this Ad-SCM project phase. Team dynamics and challenges play a major role in the team's success. Before presenting the work to the client, client negotiations and final target audience presentations, the teams must speak the same thing, share common understanding and consensus, and support each other while being crystal clear about their creative and media strategies. Teams which met more often, and worked rigorously to remove all common doubts, perceptions and come to a common thinking were the ones that excelled in this project. This leads to the concept of common thinking which can be termed as "SCM thinking" where all supply chain partners must be at the same mindset and share the common feelings of trust, credibility and shared knowledge. In the "Final Lessons Learned" Document prepared at the last stage, the teams were able to employ SCM thinking in their Ad-SCM experiential lab game project.

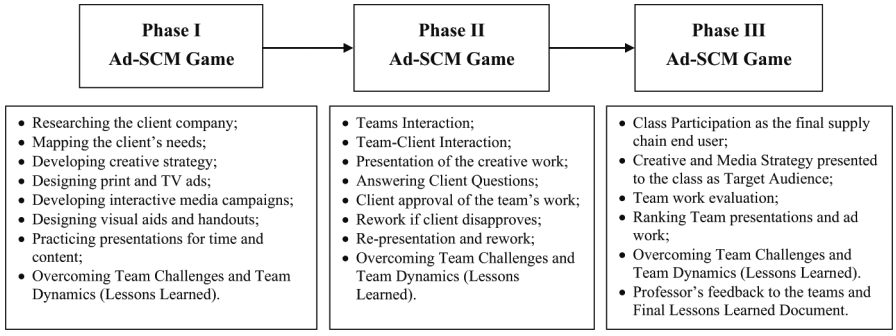

Figure 1.
Ad-SCM Experiential Game Project (Three-Phased Approach)

Findings and discussions

It was observed that the teams enjoyed Ad-SCM experiential lab game as it incorporates all learning style strategies for active, reflective, sensate, intuitive, sequential, global, verbal, and visual learners (Solomon and Felder, 1999). Table I illustrates the students' preferences for different teaching strategies as a part of this Ad-SCM project.

Table I indicates that all learners gained great insights about the Ad-SCM game in this preliminary case research project and understood SCM thinking of integrating and synchronizing all supply chain business partners with the necessary qualities of trust, credibility, understanding and reliability. This experiment helps in evolved SCM mindset for an effective advertising supply chain.

The learners were asked questions in three categories of logistics and effectiveness of Ad-SCM game project – Team Experience, Team Effectiveness, and Overall Feedback, as an assessment tool for evaluating the project success. The questions are illustrated in Table II.

Table II parameters were helpful in deciding the success of Ad-SCM case study project, which simulates the real-life business organization environment for investigating complexities in the advertising supply chains. While Table I reveals the preferences of active, reflective, visual, verbal, sensate, intuitive, sequential and global learners, for teaching strategies leading to insights into the individual behaviors, Table II highlights the team experience, team effectiveness and overall feedback which brings the "SCM thinking" of the individual and the group to the fore. For example, in A-R learning dimension, active learners helped in SCM thinking of trust, building reputation, and credibility, while the SCM thinking of the reflective

Learners	Preference for teaching strategies
Active learners	Presentations, team leadership, team work and hands-on practical Ad-SCM experience
Reflective learners	"Lessons Learned" document preparation, group work, and guest speakers
Visual learners	Overhead presentations, tutorials to understand the important topics in advertising and SCM, and presentations
Verbal learners	Presentations, "Lessons Learned" discussions at the end of each phase, Asking relevant questions and gaining insights, Questioning effectively and responding during Negotiations Phase with the Client
Sensate learners	Lecture notes and tutorials, case readings prior to the start of Ad-SCM Lab to be better prepared for the phases involved, learning by retrospection of "Lessons Learned" documents and gaining insights
Intuitive learners	Team players, imaginative, creative with no boundaries involved, dislike questions and ever ready to come up with new innovative ideas for Ad-SCM Game
Sequential learners	Guest speakers, case readings, group work, Like to discuss the findings at the end of each phase to effectively move ahead, preferred "Lessons Learned" documents at the end of each phase
Global learners	Disliked "Lessons Learned" at each phase and instead preferred the "Final Lessons Learned" Document, Appreciated the end-results more than the results at the end of each project phase, Motivated the team to see the end result as a "Big Picture" or "Whole Egg" Philosophy

Table I.
Preferences for different learners: evolving insights

Team experience	What did you learn while designing creative and media strategy for the client?
	What did you learn while presenting creative and media strategy for the client?
	What did you learn from other teams' creative and media presentations?
Team effectiveness	What was the biggest challenge involved in the Ad-SCM project?
	What was particularly effective in your team's work on creative and media strategy?
	What was particularly effective in your team's delivery on creative and media strategy?
	What was effective regarding your team, especially in terms of winning approval of clients and customers?
	What was effective regarding the other teams, especially in terms of winning approval of clients and customers?
Overall feedback	What was the most intriguing and effective part of your Ad-SCM project?
	How did your Ad-SCM work help you to better understand the two subject areas – Advertising and Supply Chain Management?

Table II. Logistics and effectiveness questions: team experience, effectiveness and overall feedback

learners evolved through reflection exercises on individual and team work by preparing "Lessons Learned" documents and performing unbiased critique on the Ad-SCM project. In V-V dimension, verbal learners' SCM thinking was expressed through ideas and feedback in "words", as they believe words are powerful in building trust and reputation. On the other hand, visual learners' SCM thinking focused on image advertising, soft-sell strategies, building soft skills for ensuring success for business partners, repeating routine tasks, using standard templates or formulating their own structured templates, and creating "lessons learned" document. In S-I learning dimension, sensate learners liked group work and their SCM thinking was the "connect" of this Ad-SCM game with the real world. They viewed this game exercise as a preparatory tool to join the business world. Intuitive learners, on the contrary, liked abstractions, math calculations, innovation, and discovering possibilities and relationships, and hence, their biggest challenge was researching facts and writing "lessons learned" documents at the end of each project phase. In S-G learning dimension, the SCM thinking of sequential learners was based on applying "Lessons Learned" documents at every phase to ensure corrections and corrective feedback. Sequential learners applied the overall feedback to other interdisciplinary business projects as well, while the global learners viewed the project as a "Big Picture" approach or "Whole Egg" philosophy. The end result always weighs more and the global learners believed in presenting the team with end benefits of this Ad-SCM project. Subsequently, all teams realized the utmost importance of SCM thinking of Ad-SCM project as building long-term sustainable relationships within and across the advertising supply chains.

Research implications

The Ad-SCM experiential lab game is real-life business organization environment simulation project exploring complexities in the advertising supply chains. It provides

knowledge about the importance of information sharing, information visibility and dissemination across all business partners of any complex supply chain. Ad-SCM project learners and participants realized the importance of information systems and technology as a unified and coordinated link in a supply chain system. Communication and collaboration were elaborated and illustrated as key indicators for the success of this project.

The Ad-SCM game highlighted the bullwhip effect related to erratic shifts in demand-supply structures up and down supply chains affecting organizations. The students were sensitized greatly to their clients' needs and how the bullwhip effect affected their clients and hence their own advertising business. Collaborative planning, forecasting, and replenishment (CPFR) was elaborated, discussed and practiced by the student teams participating in this experiential lab project. CPFR is an organizational practice in which suppliers and retailers collaborate in planning and demand forecasting in order to ensure that supply chain members will have the right amounts of raw materials and finished goods when they need them. This information is highly critical for the clients and hence to the advertising agency designing and developing advertising and communication needs for the clients. Since we considered an "electronics" giant and a "quick service restaurant" as clients in our Ad-SCM project, the students were made to research not just the clients' industry but also their supply chain business partners and perform CPFR analysis for the clients. This helped the teams to develop relevant creative and media strategies for their clients and their final customers. We can effectively conclude that the student teams working on Ad-SCM organizational game project explored and understood a big supply chain integration picture representing the complexities within and across the organizations.

Ad-SCM experiential lab organizational game has strong implications for industry professionals and SCM consultants. This is an example of the existence of "learning organization" in education sector where the learners were prepared to take on the organizational challenges as a part of the curriculum study and implemented the successful integration of key business areas of advertising and SCM. Industry professionals may use this reflective Ad-SCM action research project as a practical and strategic gaming "exercise" for their own employees which can be used at regular intervals to assess their knowledge in interdisciplinary business management areas and at the same time, reinforce the critical management issues in real-life organizational environments using the "learning organization" approach for effective learning and knowledge management.

Conclusion

The research presented a successful case study approach by incorporating participatory action research and integrating the advertising and SCM education. The study acknowledges the Hawthorne effect and considers the research as a "preliminary research project" where at the end of the project, the participants were found to acquire knowledge on SCM capabilities and thinking, while focusing on creative and media advertising strategies. It can be concluded that the Ad-SCM experiential case study project strengthened the interdisciplinary business (advertising and SCM) education by preparing the business students to connect to the real world organizations effectively. Through this preliminary action research case study project, it was found that the learners who interact, learn, involve and participate in

interdisciplinary projects appear to be better suited for the real-world business challenges posed by the worldwide learning organizations.

The importance placed on strategic gaming and the "learning organization" approach within the context of business school game based interdisciplinary organizational learning as sustainable competitive strategies in real business world need to be further explored. Further research is needed before it could be concluded that the findings of the study of learning styles and the corresponding assessment of the interdisciplinary Ad-SCM experiential lab game project are generalizable. Further research along the lines indicated in this Ad-SCM project may prove useful for educators to try interdisciplinary, innovative projects to reinforce learning across all organizational disciplines in an inter-organizational setting, and improve performance for future workforce joining the industry.

The participatory action research model highlighted through Ad-SCM case study may provide great value to the industry professionals as it motivates the critical SCM thinking through the use of the "learning organization" as an interdisciplinary learning zone and investigates the key issues in cross-sectoral business management areas. Such research can be of great interest to the industry as it can help build up the cross-disciplinary management exchanges between employees and provide the real-life case scenarios for interdisciplinary research projects. Furthermore, such research explores the possibility of transfer of learning during the individual's academic pursuits leading to the reduction in training costs and improved ROI for organization in the future. Consequently, the use of strategic gaming, applying a "learning organization" approach at the academic level, and thereby improving the transfer of learning from education to organizations, may turn out to be critical success factors for improving individual and organizational sustainable competitive performance.

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