Developments in Business Simulation and Experiential Learning, Volume 28, 2001

CONGRUENCE II™: A STRATEGIC BUSINESS BOARD GAME

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ABSTRACT

At the 1999 annual ISAGA meeting the authors introduced the original Congruence™ game. "Its purpose was to demonstrate the importance of congruence among team members, strategies and resources for entrepreneurial firms." The purpose of Congruence II™: A Strategic Business Board Game, is to teach the strategic importance of congruence in strategy, quality and finance through the firms' life cycle. Participants make strategic decisions at different stages of the product life cycle (one board for each stage of the life cycle). As participants compete only with themselves and play against the possible, the game is designed for one or many players, or teams. Participants will learn the importance of continuous strategic decision making that serves to build a "better team" and a "better firm."

INTRODUCTION

With many new firms failing, venture creation is a seemingly stochastic process. The primary reason for new firm failure, which is high, is generally cited as "poor management." Typically the new entrepreneurs and their management teams do not possess the appropriate skill-sets or resources. In addition they may not focus their resources on the defined problem at hand, i.e., the establishment of a successful firm. Lack of congruence among team members is a major cause for this lack of focus. A partial cure is starting the firm with the right people, those possessing the appropriate functional skills that have similar beliefs. The key to future success is to make appropriate strategy and resource changes as opportunities arise. As in the business world, real strategic and tactical events occur that interfere, in a positive or negative sense, with a firm accomplishing their strategies. These occurrences or interferences are built into the game. Congruence II™ is designed for participants to learn lessons across the product life cycle that lead to firm success.

BACKGROUND

There has been growing recognition among business simulation developers that firm strategies must be taken into account in their games. Simulations have begun to include a better, but far from perfect, capability for the players to choose strategies when playing business games (Wolfe and Roge, 1997). In early computer games, decisions were mostly focused around manufacturing and marketing budget inputs. How well do today's games allow for actual strategic input? Do they merely masquerade decision-making of "*ole*," (i.e., budgetary inputs), or do they allow for strategic choices which affect simulation output? Finally, do participants learn about the relationships between strategy and performance, or do they just jump the hoops of the business game they played?

To help answer these questions in a positive way, the authors have developed a board game that teaches important concepts that once learned will assist in developing better entrepreneurs and better managers, whether in the classroom or in the field. Game players can develop their understanding of the value of congruence, self-efficacy and team building as the simulated firm's product moves through its life cycle.

Congruence can be viewed as a "fit or best match between key variables." Thus congruence could mean a number of things: ... the interplay and interrelations of: environment and strategy, organizational tasks and technologies, and the individual and organizational structure (Hatton and Raymond, 1994).

Games and simulations are designed "to heighten participant capacities for critical thinking" as well as to teach lessons "recognizing the validity of different points of view... developing ...peaceful resolution of conflicts" (Stoy, 1999). Wolfe et al. (1989) investigated the importance of "team building on economic performance." The authors concluded that effective team building resulted in more cohesive teams resulting in better performance early on. These teams maintained their superiority, while other teams, not as cohesive, began to do better, but not superior, later in the game. This observation is supported by other researchers (Jaffe and Nebrenzahl, 1990) and is consistent with Liedtka's work (1989) as well. Other management studies suggest that better formed teams perform better (Schwartz et al., 1987). Thus, teaching game players that working together, as a congruent team with congruent organizational goals is a performance-enhancing outcome.

CONGRUENCE II™

This game was designed as a total enterprise game so that it would mirror an entrepreneurial environment (few

people and all functional needs and demands). The game creates an environment that allows for its participants to learn the importance of a number of issues. Learning in this fashion is a "method that draws on structured behavioral activities to teach complex, affective, cognitive and behavioral concepts" (Gundry and Kickul, 1996). The game allows participants to maximize their game performance through congruent decisions. All participants can then be "winners." The game allows for participative learning, i.e., team building and choices followed by performance and reward, thus teaching, in a creative way, about efficacious strategic choices. Because of the multiple functions represented in the team and the decisions needed, the game also teaches about the value of interface congruence (Suzawa, 1985; Rho, 1994).

THE GAME AND ITS PLAY

The intended participants are students, entrepreneurs, and business people interested in congruent strategic decision-making and its impact on firm development and performance. Individuals or groups can play either alone, or in teams. They can also play competitively when two or more games are played simultaneously.

The game begins with a player being given the description of the firm, its product and the entrepreneur's goals, beliefs, and ideals. The game proceeds as the player begins to move around the board. Moves are determined by the throw of a pair of dice. The use of dice allows for the introduction of a stochastic element into the game, thus somewhat mirroring the nature of entrepreneurial firm development. If more than one player, each individual plays on a separate board, making decisions in a confidential manner, in the same way firms' operate in the analog world.

A player is expected to go around the board four or five times to achieve the desired outcomes. Outcomes are determined by chance as the player lands on various squares (as in Monopoly™) that represent strategy, personnel, finance, operations, strategic and tactical occurrences and environmental interventions. The player makes a decision as to whether or not to accept what the card represents. The board outcomes must include a certain level of congruence in personnel and strategies, with accumulated capital to allow for entrance to the next board level. The game proceeds through the four conventional levels of business development: start-up, introduction, growth and maturity (Thompson and Strickland, 2000; Boyd et al., 2000). As in the analog world the costs of doing business and making changes increase at each level.

The game administrator briefs the player on the general nature of the game. The game utilizes cards that define a role for each team member, including background, capabilities, personal resources, ideals, goals and beliefs, and favored strategies. Each simulated team consists of an entrepreneur, a senior officer and marketing, operations, and finance managers.

At any time the player requests congruence scores, the game administrator calculates player progress and reports the congruence of strategies and personnel. If greater congruence among personnel and/or strategies is desired, then a replacement manager may be hired. The price to be paid for the replacement and/or a new strategy is then deducted from the player's financial score. The game continues as strategies are decided and resources accumulated. The play on a board ends with the accumulation of the necessary congruence scores and sufficient resources to allow for moving to the next level.

As stated above, similar to Monopoly™, the board contains squares that are reached by the right throw of the dice. Each functional square (16 total) has a specific activity for the new firm to achieve. These squares allow for selection of appropriate personnel; a choice of resources; operations decisions focused on quality, and a choice of corporate and divisional strategies.

There are eight other squares that relate to tactical and strategic occurrences that will impact the firm either as opportunities or threats. These cards have to be accepted. The remaining four squares (28 in total) include the beginning/ending square and three corners that represent environmental interventions that again create opportunities and threats. These interventions must be accepted as well. There is a fee for passing the beginning/ending square.

All choices are contained in the sets of cards that include the various strategies (corporate and divisional); financing choices (debt and equity); personnel needed (marketing, finance, operations and senior management); and operations (quality) choices. When landing on a square, a card is drawn, and the player has the choice to accept the card or not.

For the player to move from the *Start-up* board to the *Market Introduction* board, the player must have achieved a minimum congruence score of 80 for personnel and 50 for strategy. Capital is accumulated in the normal conduct of business, e.g., angel capitalists, credit, etc., and the player must have accumulated $2,500,000 in capital. The purpose for the minimum scores and capital is to teach what is needed to create successful firms and the importance that congruence plays in that success. If the player cares to increase the firm's resources or change strategies or managers, this may be done at this level at a lower cost than at a higher level, but there is also a cost for each round of board movement.

The second level of play, the *market introduction* level of the product life cycle, creates new challenges for the player. Strategies change as a firm moves through a life cycle. Challenges include new strategic decisions about changing personnel, operations, strategies and finance to create a more congruent firm. To leave this level in order to advance to the *market growth* board, the player's firm must have a congruent score of 90 in personal, 75 in strategy, and over $6,000,000 in accumulated capital. In addition to possible venture capital and bank loans, sales revenues begin as the firm begins to sell its product.

The next level of play is *market growth* and the final level is *market maturity*. At each level the player can maximize performance by changing and choosing the right personnel, finances, operations, and strategies appropriate to the product life cycle stage the firm is in. As noted, strategies change as do personnel, financing and operations needs and the player must continue to congruently manage his/her firm. Net capital is cumulative, but can be lost either with intent (decisions on various issues) or by happenstance, i.e., the strategy, tactical occurrences and environmental interference cards with their associated costs and revenues resulting from the opportunities and threats.

There is a cost associated with the number of times the player moves around a board, with the cost increasing each time the player moves up a board. For example, if a player has difficulty landing on a needed square, then additional moves are made and the cost would depend on the number of times the player has to move around a board. Further, if the player selects a less then optimum manager, and wishes to change that person for another, the cost of the change increases as the player moves up to higher boards.

The game ends when the player has achieved what he or she desires, i.e., knowledge of the impact of congruence on decision making and performance. Another way for it to end is after playing one, two, three or all four boards. A third way for the game to end is for the player to run out of funds, as he/she learns about "burn rates" for capital! At the conclusion of the game, the player is debriefed, emphasizing the relationships among the simulated team members, strategy, and performance with the focus on the overall importance of congruence.

Game administration requires one individual to explain the overall play of the game, to distribute materials, and to perform the scoring and debriefing. The game set includes a set of boards, one for each level; sets of cards that include all the "card" choices for each of the squares on the board; a pair of dice; the player score cards; and the administrator's key for congruence among the personnel and strategies; and cards reflecting the costs for decisions.

Each set of game boards and cards can accommodate one person playing as an individual or many persons playing as a team. Team play creates the opportunity to learn about team congruence, somewhat different than individual play. The sole player learns the congruence lesson from "paper," the team does so by participating in the decision making.

The game has been designed with different firm and product types, and with a set of five team members that "best fit" each of the firms. This provides for the opportunity of learning about different strategies in different industries and how congruence can vary by the nature of the firm and industry and team.

SUMMARY/CONCLUSIONS

The developers of the game have extensive experience in studying the relationships between performance and firms' strategies. The play of the game has been designed so that the presence and absence of needed resources, chosen strategies, and congruence of beliefs, ideals and goals can be easily determined and final firm performance calculated.

The firm performance evaluation is based upon the acquisition of capital and revenue. The sales of the firm are determined by the appropriateness of the selected strategies resulting from the congruence of beliefs, ideals, and goals and the quality of the management personnel. In the second and subsequent boards, sales are the major source of cash. Equity and debt can also be accumulated and count towards the available cash.

Depending on what the initial learning goals were for the individual player, i.e., firm performance as measured by dollars; team leadership as measured by the gathering of appropriate resources; or learning to hire for the right beliefs, ideals and goals, single or multiple lessons can be learned. The game can be played for many different reasons in multiple industries. Finally, chance plays a role in the game, but leadership relating to congruence reduces that chance. Sound strategic choices also increase congruence and capital outcomes.

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