

Table Tennis Balls Inspire Superior Business Model Innovation

Donald W. Mitchell

Dr. Johji Satoh was a studious boy while growing up in Japan, but he took some time to enjoy table tennis. In Japan preparing for college is taken very seriously, and there is little time for play. Table tennis is a good choice for relaxation because you can compress a lot of activity chasing a ball into a short amount of time and smashing a table-tennis ball can be very satisfying after a long period of studying.

When you play table tennis, you quickly learn to adapt your game to the conditions in which you play. If there's not much room around the table, you have to be prepared to lunge across the table rather than fall back or sideways to gain time to respond to an opponent's shot. If the ceiling is low, you have to get to the ball before it caroms crazily off that obstacle. If the table has quirky spots that affect how the ball bounces, you plan your ready position and shots to take those potential bounces into account.

In spite of his hard work, Dr. Satoh did not do very well in school but was accepted at Keio University in Tokyo where he studied economics and management. After college, he worked for a boutique stock brokerage firm in Tokyo where he learned more about a topic that had been introduced during his college studies: the role of financial options and futures to buy and sell at predetermined prices. His work brought him to the United States, and he became fascinated by the lectures he attended with American economic and finance professors.

Taking the option to learn more English, Dr. Satoh studied at the ESL Institute of Tulane University. Once he had improved his language skills, he took an MBA degree from New Hampshire College (now Southern New Hampshire University) Graduate School of Business. For one of his courses he wrote a term paper on a regression model of financial option pricing, which encouraged him to study more about various types of options.

Returning to Japan, Dr. Satoh encountered the great economic depression in that country. Jobs in financial services were hard to find, and he trained to become a management consultant. From this work, Dr. Satoh realized that he needed more knowledge about management and business options to help his clients. By now, he had become fascinated with a new concept, real options, in which the concepts of financial options are transformed into management tools for creating better business results.

The point in table tennis is to be prepared for the ball's movement as quickly and exactly as possible. As you know, the ball seems to bounce randomly, but the players must move to intercept the direction of a shot based on the shot angle, spin, speed, and where the ball lands while allowing for randomness. In table tennis terms, real options might be considered as helping players anticipate where the ball is coming next: The point for real options is to anticipate future cash flows for business projects to realize better business results. Real options are designed to take out most of the randomness.

In a business context, real options may be thought of as valuable decision-making tools through exacter anticipation of the cash flow of projects with uncertain value changes such as oil exploration and development of new drugs. It is difficult to predict the future cash flows of a drug development project because it has various risks such as efficacy, side effects, rising material prices, and the market movement. If a rival company takes a lead in developing a similar drug product, the project might be discontinued after much wasted expense. So the management team must watch the project and its market environment carefully, calculating the cash flow from the project at each development stage, which is the stochastic process. In that process, the random movement of cash flow, like the seemingly random ball movement in table tennis, is presumed.

Because of his fascination with real options and his sense that they were poorly developed by most academics and consultants, Dr. Satoh decided he wanted to become a professor of management in a university, write books about real options, and provide consulting services that would add to the practical applications of this concept.

Where could Dr. Satoh gain the opportunity to do such cutting edge work in real options while that subject was barely developed in most universities? Dr. Satoh cast his research net wide and discovered Rushmore University, where he could do his real options work under the supervision of professors who were well-known authorities in finance and business model innovation. The university also offered great flexibility in designing his course of study.

Working on real options at Rushmore, Dr. Satoh developed the mathematics to correct for the assumption of randomness in business conditions that is incorporated into financial options. Why did he do this? Like the ball movement in table tennis, results in the business world are not always random. He also wrote papers defining major opportunities to operate conventional businesses more successfully by employing business models built around new types of real options that he conceived.

Since graduating with his Ph.D., Dr. Satoh has developed a real option application model applied for a patent that built on his university work to help publicize and increase understanding of how real options can be used to create superior business models. In addition, he founded AlphaPoint Consulting, LLC., an online consulting firm, to provide services in developing business skills and real options based on his Rushmore papers. Through the consulting firm, he also offers a free online business school where people can learn about business methods including real options.

What's next? Dr. Satoh sees his progress to date as developing his Ph.D. brain so that he can create innovative solutions to difficult business problems with uncertain value changes that have frustrated people for a long time. Having benefited from developing his thinking, he wants to do more of the same. He continues his studious ways, teaching himself and others to advance this important frontier of business knowledge and practice, creating superior business models by employing real options.

You never know what you can learn to do until you try. Where do you need to stretch your reach to keep an opportunity from passing you by?

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