Theoretical study is a preparation for dealing with the unexpected

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The abbreviated mission of the US Military Academy is to educate, train and inspire future military officers for a career of professional excellence.

As a cadet in the late 1990s, I wondered how academic subjects such as thermodynamics and probabilistic models correlated with success in the US army or the private sector. Although I majored in systems engineering, all cadets complete courses in engineering and the physical sciences.

The answer to my question came years after graduation from West Point, when I entered New York University's Stern School of Business to pursue my MBA. As I reflected on my career at Lucent Technologies and on my entrepreneurial endeavours, I realised that knowing the theories for solving engineering and mathematical problems aided me in making difficult decisions logically and with great accuracy. My background in mathematics also enabled me to build quantitative models, which helped in decision making. Lastly, the rigorous curriculum prepared me for a lifetime of continuous learning and personal growth.

But the value of research-based teaching compared with learning from best business practice has come under fire. In their much debated article published by the Harvard Business Review, USC business school professors Warren G. Bennis and James O'Toole argued that “too focused on ‘scientific’ research, business schools are hiring professors with limited real-world experience and graduating students who are ill-equipped to wrangle with complex, unquantifiable issues – in other words, the stuff of management”. I do not intend to set out a comprehensive rebuttal of their argument; in fact, the authors make quite a few valid points. Yet they fail to recognise the merit of engaging with the thinkers who create knowledge, challenging the status quo and pushing the boundaries of business practice. These professors, through their constant questioning, analyses and probing curiosity, embody the forward-looking mindset business leaders need to succeed. I had the good fortune of taking classes from a number of such professors.

At Stern, strategy is a mandatory core course. In my second semester, I had the privilege of having Adam Brandenburger, JP Valles Professor of Business Economics and Strategy, as my instructor. We had practical lessons such as how to map the business landscape via a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis and how to use judo strategy to compete. I will use these tools throughout my career but the most useful part of the course involved game theory.

Grounded in applied mathematics, game theory studies the interactions of players with the goal of maximising their returns in a virtual market setting. To those who do not support research-based education, game theory may sound purely academic. However, after a course with a foremost researcher, who has written a book on the subject, I see game theory as an essential tool for executives.

Corporate managers and entrepreneurs are not expected to prove their strategic decisions mathematically; but game theory does provide an essential tool that helps see opportunities that competitors may not. By combining game theory and case studies, Prof Brandenburger imparted a valuable, and practical, lesson.

In my entrepreneurial ventures, my primary function has generally involved marketing. My classes at Stern gave me a solid foundation in the subject. From positioning and perceptive maps to segmentation and targeting, academic research was incorporated into each lesson. Peter Golder, Associate Professor of Marketing, taught both the core marketing course and my new product marketing elective.

Prof Golder supplemented the textbooks and case studies with insights from his own research. The other day my business partner and I were discussing potential marketing strategies for a product that we plan to roll out in 2007. We focused on the recent manoeuvres of our three largest competitors. That evening, I pulled out my copy of Prof Golder's Will and Vision: Latecomers Grow to Dominate Markets, selected by Harvard Business Review as one of the 10 best business books of 2001. The book delves into how companies such as Xerox, Gillette and Microsoft were able to gain market share from competitors who entered the market before them by using effective branding and product placement.

Re-reading highlighted sections of this book and my class notes, I gained confidence in our preliminary marketing plan as well as further insight into ways to improve our product strategy.

Bennis and O'Toole were not totally incorrect. The presence of seasoned business practitioners in the classroom is extremely valuable and I had many opportunities to learn from faculty who served as senior managers or partners at investment banks and from those who started their own successful firms. I also learned from guest speakers who frequently came to campus, or participated in our student-run conferences.

As in the case of my own experience at Stern, the watchword in business education should be balance. Today's business students enter school with several years of professional experience, and some familiarity with “best practice”. Business schools must challenge these future leaders to learn not only new systems and ways of conducting business, but also teach them how to analyse problems and make tough decisions over the course of a lifetime.

They must prepare students for complex situations that they will undoubtedly face throughout their long career – knowledge of “best practice” alone will not suffice.

Let's not undo the evolution of the business school curriculum over the past 50 years. Let's refine and adapt it. West Point has consistently produced military and private sector leaders for the past 200 years, and its approach has been simple: provide a curriculum that produces "leaders who anticipate and respond effectively to the uncertainties of a changing technological, social, political and economic world" (USMA website). A research-based business education should strive to deliver that same outcome.