INTRODUCTION TO STRATEGY

Strategy is about winning, and the defining dependent variable in business strategy is the overarching performance—profitability, market capitalization, etc.—of firms. Two theoretical perspectives—the positioning school (TPS) and the resource-based view (RBV)—have dominated research and teaching in business strategy since at least the 1990s. TPS is primarily attributed to Michael Porter, and maintains that a firm earns a higher rate of profitability than its competitors by pursuing a differentiation or low cost strategy in attractive industries. Through differentiation, for example, a firm can win without fighting—without pursuing price wars in which no one, not even the customer, wins. RBV was first articulated by Jay Barney, Birger Wernerfelt and CK Prahalad, and contends that having a higher rate of profitability than competitors is predicated on having rare valuable resources that are difficult to imitate. What does my research have to do with these dominant theoretical perspectives and firm performance and, therefore, strategy? A lot!

WHAT I DO

My research has focused on two major gaps left by these theoretical perspectives in explaining performance differences among firms (Figure 1). Without filling these gaps, it is very difficult to explain the superior performance of many firms—especially in today’s economy—from Apple to Zoom, and help the firms sustain or improve their performance. First, my research focuses
on the vital role of **technological innovation** as the major determinant of TPS’ major constructs—differentiation, low cost and industry attractiveness—and RBV’s valuable rare resources, as well as the overarching environments in which these firms operate (Figure 1). Technological innovation often gives firms a competitive advantage by improving differentiation and low cost while building or reinforcing rare valuable resources. Importantly—as Schumpeter argued years ago—technological innovation can also render existing market positions and underpinning valuable resources obsolete, dismantling existing competitive advantages and the drivers of industry attractiveness.

Second, my research has also focused on the role of **business models** and **business model innovation** in explaining performance differences. Business models include factors such as monetization—the translation of differentiated or low-cost products/services into money or other legal tender that is greater than the cost of the products/services—that are assumed away in TPS and RBV theorizing but are crucial in today’s digital world. For example, despite being highly differentiated, Google did not become profitable until it adopted a paid-search advertising business model and has not looked back since. Business model innovation is about novel ways of creating and/or capturing value. Apple’s superior financial performance is as much a function of its business model innovations as it is of its product innovations.

**UNIQUE CHALLENGES**

I have faced some rather unique challenges in my research. I come from a research tradition that values big research questions—that values going for the homeruns rather than the frequent hits. This is very risky! To make matters worse, the expertise needed to evaluate research in technological innovation and business models has been rather opaque to editors and reviewers of the “A” Journals in which management scholars have to “publish or perish.” Worse still, I draw on economics—Schumpeterian, Carnegie School (e.g., transaction cost economics), etc.—in weaving the causal logic in my research. Consequently, going against all my advisors’ strong recommendation, I had to target both books and “A” Journals as outlets for my research from day one of my academic career. Luckily for me, the rise of the digital economy has been a natural experiment in technological innovation and business models, providing interesting opportunities for research. Better still, I was privileged to have outstanding academic role models. For publishing in “A” Journals, I had Rebecca Henderson (my adviser and the chair of my dissertation committee at MIT), Jane Dutton and Karl Weick as role models. For publishing in books, I had CK Prahalad and James M. Utterback. Importantly, Joe White, the Ross Dean who hired me to Ross created a phenomenal environment for research and teaching in which faculty could thrive. I just couldn’t let down these remarkable people. So then, what has been my research performance in the face of these opportunities and challenges?
THE RESULTS

Here are the highlights of my research output in the face of these challenges and opportunities:

- **16,000** Google Scholar citations. With 16,326 Google citations on February, 2022, I joined a select group of management scholars whose research is rooted in economics but have accumulated more than 15,000 Google citations. For my latest score, see: https://scholar.google.com/scholar?hl=en&q=Allan+Afuah&btnG=&as_sdt=1%2C23&as_sdtp=

- **5 single-authored** “A” Journal publications. With five single-authored papers published in “A” Journals, I joined a select class of management scholars with more than 10,000 Google citations who have at least five single-authored “A” Journal publications. Again, this is no easy feat, especially for management scholars who use economics as their base discipline.

- **Best Paper Award** for a “Big Three” journal (AMJ, AMR, ASQ). With the 2012 AMR Best Paper Award, I became only the third Ross faculty ever to win a Best Paper Award for a “Big Three” journal (AMJ, AMR, ASQ), and the first to win the Best Paper Award for the best journal. My role model Jane Dutton won best paper awards in AMJ and ASQ while Karl Weick, my other role model at Ross, won an AMR best paper award. Of course, Rebecca Henderson—my advisor and dissertation chair at MIT—won the ASQ best paper award.

- **6 books published by top publishers**. With six books published by reputable publishers, I join only CK Prahalad in the Ross strategy group with that many books. Of course, CK’s books were overwhelmingly more popular than mine and written for practicing managers. However, while all of CK’s books were co-authored, I was the single-author of 4 of my 6 books, published by reputable publishers. My books were written for scholars and therefore contained a lot more theory than CK’s.

- **AMR 2019 Practice Implications Award**. The same paper that won the 2012 AMR Best Paper Award also won the 2019 AMR Practice Implications Award at the Academy of Management. AMR is a theory journal. Therefore, for a paper to win the AMR best paper award and the journal’s award for practice implications is remarkable.

- **Making a difference for the #1 journal**. In 2019, a 2017 paper I co-authored contributed 1.173 to the Academy of Management Annals’ impact factor of 11.750 that made it the number one journal in management (and business). Our paper was by far the largest contributor to the impact factor. Without the paper, the journal would have dropped to number 2.

- **Creation of electives from my research**. From my research, I created the elective “Strategy 675: Business model innovation” from scratch, and wrote a textbook for it (published by Routledge) that was translated into Korean, and is now in the Second
Edition. Before that, I had used my research in technological innovation to repopulate an elective in technology and innovation (Strategy 673) before the head of department took it away from me to give to a junior faculty member.

- **Moving core courses from the 20th Century to the 21st Century.** Just as important, I also used my research in technological innovation and business models to try to move the core courses that I taught from the 20th Century to the 21st Century—from Cola Wars and Wal-Mart to Apple and Amazon. Explaining performance differences using the positioning school (TPS) or RBV may have worked like a charm in the 20th Century when Coke and Walmart were the most valuable firms. Today, in the 21st Century, when Apple, Google, Facebook and unicorns rule, TPS and RBV fall far short of explaining performance differences. Technological innovation, business models and business model innovations are fundamental to explaining firm performance differences in the 21st Century.

Now, here are some details about the research questions that I have explored in technological innovation, business models and business model innovation—the research questions that have distinguished my research from that of other strategy scholars.

**TECHNOLOGICAL INNOVATION VIEW**

Technological innovations are the inventions, discoveries and creations that are associated with the novel scientific knowledge, techniques, skills, methods, and processes that moved humanity from caves to skyscrapers, brought us the microchips without which there would be no Internet or smartphones, and so on. Importantly, technological innovations are strongly associated with change—with what Schumpeter called “creative destruction”. This is the change that can reinforce or dismantle competitive advantages from TPS’ major constructs (differentiation, low cost and industry attractiveness) and RBV’s valuable rare inimitable resources, as well as the overarching environments in which firms operate.

As a tenure track strategy assistant professor whose doctoral training was in management of technological innovation (MTI), I was fascinated by the potential impact of technological innovation on TPS’ positioning and RBV’s valuable resources and, therefore, the performance of firms. (MTI is about the strategies and processes for generating and transforming scientific knowledge into products and services to benefit humanity.) This set me on a path to exploring research questions that just keep getting more and more fascinating. What are these questions and my publications exploring them?
Question 1

How does technological innovation impact a firm’s positioning and scarce valuable resources and, therefore, the performance of the firm?

My exploration of this question is best illustrated with a sample of my major publications. The first of these publications was a book:


- In this book, I presented a framework for exploring how the type of technological innovation (incremental, modular, architectural, radical, competence enhancing, competence destroying) and the type of firm (incumbent or new entrant) determine the degree to which a firm’s valuable resources and its positioning are reinforced or rendered obsolete by the innovation; ultimately determining the firm’s profitability. Importantly, I offered three strategies—block, run, and team-up—that a firm can use to reinforce, or avoid obsolescence of, its positioning and resources, thereby sustaining its competitive advantage in the face of technological innovation.
- The book was translated into simplified and traditional Chinese, and Thai.


- 2012 AMR Best Paper Award
- 2019 AMR Practice Implications Award


Question 2

Back in 1998, in the face of the Internet revolution, a huge question for management scholars was: What is this new technology called the Internet and, importantly, how and why is it likely to impact firm performance?

One of the first answers to this question was the book my co-author (Christopher Tucci) and I wrote:


- In this book, we synthesized the properties of the Internet and used them—together with strategy and management of technological innovation concepts—to explain why and how the Internet was revolutionizing business, and to predict what was likely to happen to value creation and capture in the future, and to firm performance. (For example, we predicted Amazon’s dominance of retail but expected the erosion of brick-and-mortar retailers to occur sooner.) Because the Internet exhibits network effects—and TPS and RBV had assumed away monetization—a major part of the book was dedicated to monetization and revenue models.

- The book was translated into more than 8 languages.


BUSINESS MODELS AND BUSINESS MODEL INNOVATION

A firm’s business model is the set of activities that it performs to build and use resources (human, physical, intellectual, financial) to create, deliver and monetize benefits (embodied in products and services) to customers. In researching and writing Internet Business Models and Strategies, I realized that business models play a much bigger role in explaining firm performance differences than implied by the positioning (TPS) and the resource-based view (RBV) perspectives. Thus, I decided to explore the subject of business models in more detail. For example, RBV says very little about how firms end up with rare valuable inimitable resources. However, because it encompasses the building and using of resources, the business model view explores the sources of resources. Thus, befittingly, I decided to explore the following research question:

Question 3

What role do business models play in explaining firm performance differences?
As with the first two research questions, I started my exploration of this question by writing a book:


- In this book, I argued that a firm’s profitability depends very much on which activities it performs, how it performs them, and when it performs them as it builds and uses its resources to position itself well in the market spaces that it chooses to serve. Importantly, the book included monetization (revenue models and pricing), long assumed away by TPS and RBV. I reintroduced the role of resources, costs, and pricing in explaining and predicting firm performance—constructs that we had omitted in writing *Internet Business Models and Strategies*.


- Contributed 1.173 to the *Academy of Management Annals*’ impact factor of 11.750 that gave the journal its #1 ranking in 2019. Without the contribution, the journal would have been number 2.

**Question 4**

In the 2000s, anecdotal examples—e.g., an article from McKinsey—suggested that business model innovation was more profitable than product innovation. This raised an interesting question:

**What are business model innovations and, importantly, just how do they impact firm performance?**

As I did with the previous three questions, I started my exploration of this question by writing yet another book:


- I started the book by defining a business model *innovation* as a *novel* way of building resources, using resources, creating benefits to customers, delivering benefits to customers, or monetizing benefits to customers. I then presented a framework for exploring how different business model innovations—e.g., crowdsourcing, multisided platforms, subscription, advertising, etc.—impact a firm’s performance (profitability and market capitalization). The framework had five major components: Value proposition, market segments, capabilities (resources and activities), revenue-cost model, and growth model.
- The first edition of the book was translated into Korean.

**Question 5**

In exploring business model innovations in pharmaceuticals, I was puzzled by why pharmaceutical companies have, for decades, been very profitable and yet, during those decades, we have been getting fatter, sicker and more susceptible to healthcare shocks such as covid-19, according to the Center for Disease Control and Prevention (CDC). This led me to the question:

**Why have we been spending more and more on healthcare only to get fatter, sicker and more susceptible to healthcare shocks and, importantly, how can we get out of this healthcare quagmire?**

This is a monumental question that belongs to a category of problems that appear impossible to solve using status quo approaches but become relatively easier to solve using crowds. Thus, my answer to this question depends not only on my earlier work in technological innovation and business models, it also draws on my more recent work in crowdsourcing. The books and papers exploring this question—that I am writing—are still in my works-in-progress queue.

**Recent Miscellaneous Paper** (independent of research question)

Here are some recent “A” Journal papers that are not directed at any of the five questions that I have focused on:


Figure 1: My research focus relative to the positioning school (TPS) and the resource-based view (RBV) of strategy.

Technological innovation view
- Technological innovation reinforces or renders positions and resources obsolete

The positioning school (TPS)
- Differentiation
- Low cost
- Industry attractiveness
- Valuable rare inimitable resources
- Dynamic capabilities

PERFORMANCE (Profits, market capitalization, etc.)

Resource-based view (RBV)
- Building and using resources
- Creation and delivery of benefits to customers
- Monetization of benefits to customers

Business model view

My research focus shown in blue