

FMI

FMI QUARTERLY
ISSUE ONE

2018

Strategy in a Time of Industry Disruption

By Rick Tison

How to prepare for potential industry disruption driven by technology and innovation.

Steve Jobs introduced the iPhone on January 9, 2007, at the Macworld convention. Within five years, the product was responsible for more revenue than Microsoft as a company.¹ When we think of industry disruption, these are the types of data points that come to mind. We picture entire supply chains unraveling and leading incumbents going from industry leaders to footnotes of history, literally overnight.

The reality is far more nuanced. Disruption is more of a hurricane than a tornado—destructive but offering sufficient time to respond if industry participants are willing to do so. This is not to say that disruption doesn't happen fast. Disruption can happen quickly, but rarely faster than a company could respond during a traditional planning cycle of three to five years. In fact, incumbents often fail to identify or respond to disruptive forces fast enough to stave off potential value destruction.

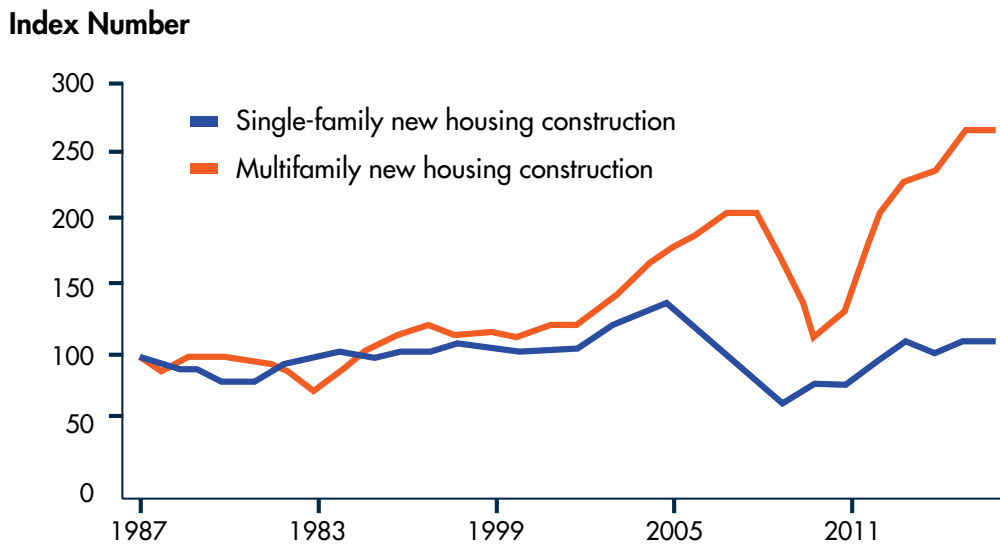
Prospects for Disruption in the E&C Industry

Recently, the construction industry has faced deserved scrutiny related to its productivity problem. A variety of sources have pointed out that the industry has seen no meaningful gains in productivity over the past several decades as compared to other industries. Concurrently, interest in construction technology and innovation channeled toward solving industry challenges is at a peak in terms of venture capital funding and the number and variety of startups focused on this market.

¹ Naughton, John. "Microsoft Once Ruled the World. So What Went Wrong?" The Guardian, Guardian News and Media, 18 Aug. 2012, www.theguardian.com/technology/2012/aug/19/microsoft-ruled-world-what-happened.

Data on the industry’s productivity problem is inconclusive at best. Conventional wisdom shows stagnant productivity compared to all other nonfarm industries. A recent report from the Bureau of Labor Statistics shows productivity gains across several construction sectors, although the findings are not universally accepted (Exhibit 1).² Regardless of its productivity track record, the industry does have a value chain problem. In our work with stakeholders from across the built environment value chain, construction is far too likely to create bad experiences for a variety of stakeholders to be insulated from disruption.

EXHIBIT 1 Index of productivity (output per hour) in single-family and multifamily new housing construction, 1987-2016 (base year 1987=100)



Note: Recession periods are July 1990 to March 1991, March 2001 to November 2001, and December 2007 to June 2009, as determined by the National Bureau of Economic Research.

Source: U.S. Bureau of Labor Statistics

This article evaluates the experience of disruption across several industries to glean common themes, best practices and lessons learned related to industry disruption. We hope you will take these lessons to heart and incorporate them into your own strategies and leadership during potentially turbulent times ahead for traditional industry participants.

² Ze, Alisa. "Productivity Gains Found in New BLS Data." Engineering News-Record, 1 Feb. 2018, www.enr.com/articles/43906-productivity-gains-found-in-new-bls-data?id=43906-productivity-gains-found-in-new-data.

Stories of Disruption

For this article, we reviewed several case studies of industry leaders that were disrupted by innovators. Our analysis revealed three classic failed responses to industry disruption: head in the sand, slow to respond and insufficient response. The following two case studies highlight two of these failed responses:

Blockbuster—Failure to Identify Disruption

The first Blockbuster store opened in 1985. At its peak in 2004, the company operated 10,000 stores and had a market value of \$5 billion. By late 2013, Blockbuster's new parent, DISH Networks, shuttered all stores.³

Netflix was the leading contributor to Blockbuster's demise. When Netflix launched in 1997, its business model was DVD rental by mail. This model helped Netflix limit costs associated with brick-and-mortar stores while offering a wider selection than Blockbuster traditionally had on hand in its stores. Blockbuster's model, on the other hand, was to operate brick-and-mortar stores offering the latest releases. Given demand for new releases, Blockbuster charged fees for late returns and, as such, late fees made up a significant percentage of its business.

Netflix is a classic example of disruptive innovation.⁴ Its business model allowed it to offer a cheaper, albeit lower-quality, service compared to Blockbuster. As Netflix gained ground with Blockbuster's less profitable segments, the latter held firm to its tried-and-true model, allowing the newcomer to build a toehold that it later exploited to offer a cheaper and better service with new streaming capabilities in 2007.

Kodak—Failure to Embrace Business Model Shifts

Kodak filed for bankruptcy protection in 2012. Analysts largely attribute the company's failure to its inability to respond to disruption from digital cameras and a customer shift from printing pictures to sharing them online. To Kodak's credit, it was a participant in both of these industry trends.⁵ Unfortunately, the company wasn't willing to take either of these far enough to threaten its historically successful business model of selling film. As history revealed, the business of selling film was under threat, and Kodak did too little to adapt its business model to account for this disruption.

Kodak created the first prototype for a digital camera in 1975. Following the invention, R&D investments were made to further the underlying technology, which was not commercially viable at the time. In 2001 Kodak acquired Ofoto, a photo-sharing site. The acquisition was largely used to encourage customers to print more pictures. Kodak sold Ofoto as part of its bankruptcy plan for \$25 million. One month later, Facebook invested \$1 billion in Instagram.

³ Downes, Larry, and Paul Nunes. "Blockbuster Becomes a Casualty of Big Bang Disruption." *Harvard Business Review*, 7 Aug. 2014, hbr.org/2013/11/blockbuster-becomes-a-casualty-of-big-bang-disruption.

⁴ Joseph L. Bower and Clayton M. Christensen. "Disruptive Technologies: Catching the Wave." *Harvard Business Review*, 11 Jan. 2017, hbr.org/1995/01/disruptive-technologies-catching-the-wave.

⁵ Anthony, Scott. "Kodak's Downfall Wasn't About Technology." *Harvard Business Review*, 24 Apr. 2017, hbr.org/2016/07/kodaks-downfall-wasnt-about-technology.

Not guilty of sticking its head in the sand and hoping its problems disappeared, Kodak's leadership diverted meaningful resources and R&D dollars toward digital photography and online photo sharing. However, the company failed to embrace new business models that accompanied disruption by not aligning with its core business model of selling film.

Accelerating Disruption

In addition to the classic failed responses to disruption outlined above, three critical accelerants of disruption also emerged. Their presence heightened the risk of disruption for an incumbent company and include:

- Disruptions in leadership
- Resistant company culture
- Previous success inhibiting future success

Disrupting the Built Environment

Our industry is not viewed as a model of technology and innovation—a reality that leads many to assume that “it can't happen here.” Katerra is a potentially disruptive innovator that is testing that assumption. Katerra's business model is to run a construction company the same way Toyota would operate a factory—fully integrated from architectural design through fabrication and installation. This allows the company to offer service that is faster and cheaper than a traditional competitor.

While it is still too soon to declare Katerra a successful industry disruptor, it does prove the case that disruption is possible in our industry. Katerra was founded in 2015 and booked \$1.3 billion in sales in 2017. While currently operating at a loss, it recently secured \$865 million in funding to invest in R&D and new factories and expects to become profitable as soon as 2019.⁶

How to Love Disruption and Stop Worrying About It

Understanding Disruption

The theory of disruptive innovation states that a cheaper, lower-quality innovator takes less profitable customers or segments away from an incumbent until the innovator is at a strength to take on the incumbent by offering a lower-cost, higher-quality offering in the eyes of the incumbent's customers. Netflix's pre-streaming service is a good example of disruptive innovation.

Instead of responding to disruptive threats, incumbent companies often defend higher-margin customers and invest in innovations that gold plate offerings to these customers to the detriment of price competitiveness with innovative new entrants. Over time, this allows the disruptor to beat the incumbent at its own game.

⁶ Merced, Michael J. De La. “Katerra, a Construction Start-Up, Raises \$865 Million.” The New York Times, 24 Jan. 2018, www.nytimes.com/2018/01/24/business/dealbook/katerra-softbank-vision-fund.html.

How Industry Firms Stay Ahead of Disruption

Dealing with disruption pushes companies to go a step beyond traditional strategy. Classic thinking on strategy means focusing on who your customers are and how you deliver unique value relative to the competition. This remains essential in dealing with disruption, but it must also be paired with the understanding that you are not perfectly designed to serve all customer segments.

The absence of broader industry perspective creates an opportunity for disruption to occur. Blockbuster failed to effectively assess the competitive threat Netflix posed because it could not see past its own value proposition. Netflix did not threaten Blockbuster's core customers, who wanted to rent new releases on demand. Blockbuster failed to appreciate that not all consumers of its movie rental offering valued the "new releases on demand" component of its offering. Other customer segments valued broad selection and did not mind waiting for them to come in the mail. Additionally, many of those customers didn't like paying late fees.

Tackling Disruption on Its Own Turf

Understanding the source of disruption is just the first step. You also need the necessary leadership to make the difficult decision to act. In our research, several companies failed to act quickly enough or move far enough to stave off disruption.

A common theme in the research was an inability of leadership to embrace sufficient business model change to deal with disruption. Kodak understood the sources of disruption; it even responded through its R&D and acquisitions. However, it failed to embrace the need to change its business model in response to disruption. This level of change requires strong, effective leadership. A common theme across the case studies evaluated was leadership turmoil accelerating the ability to respond swiftly and sufficiently.



Preparing for Disruption

- Know the value you create for clients and how that differs from the competition
- Understand that you aren't perfectly designed to serve needs of all customer segments – be mindful of "blind spots" that create opportunities for disruption
- Be willing to disrupt your own business model if needed, but don't take the decision lightly
- Don't overlook the importance of leadership and culture to your ultimate success



Rick Tison is a strategy practice leader with FMI Corporation. Rick works with clients across the engineering and construction industry to develop strategies to improve company performance and profitability. He specializes in strategy development and organizational change. He can be reached at rtison@fminet.com.



About FMI

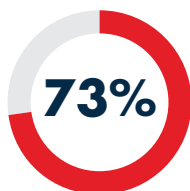
For over 65 years, FMI has been the leading **management consulting and investment banking** firm dedicated exclusively to **engineering and construction, infrastructure and the built environment**.

FMI serves all sectors of the industry as a trusted advisor. More than six decades of context, connections and insights lead to transformational outcomes for our clients and the industry.

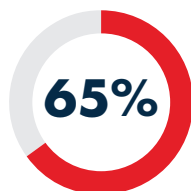
Sector Expertise

- A/E and Environmental
- General Contractors/CM
- Heavy Civil
- Industrial
- Specialty Trades
- Utility T&D
- Cleantech and Energy Services
- Construction Materials
- Building Products
- Oil and Gas
- Private Equity
- Owners

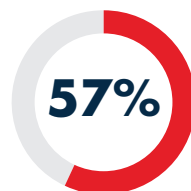
FMI Client Highlights



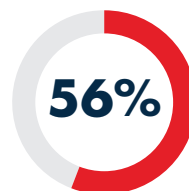
of the ENR
Top-400
LARGEST
CONTRACTORS



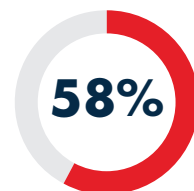
of the ENR
Top-200
SPECIALTY
CONTRACTORS



of the ENR
Top-100
DESIGN
FIRMS



of the ENR
Top-200
ENVIRONMENTAL
FIRMS



of the ENR
Top-100
CM FOR
FEE FIRMS

Industry Focus. Powerful Results.™

Denver

210 University Boulevard
Suite 800
Denver, CO 80206
303.377.4740

Edmonton

Edmonton, AB
780.850.2693

Houston

1301 McKinney Street
Suite 2000
Houston TX 77010
713.936.5400

Phoenix

7639 East Pinnacle Peak Road
Suite 100
Scottsdale, AZ 85255
602.381.8108

Raleigh (headquarters)

5171 Glenwood Avenue
Suite 200
Raleigh, NC 27612
919.787.8400

Tampa

308 South Boulevard
Tampa, FL 33606
813.636.1364



www.fminet.com