



SOCIETY OF ACTUARIES

Article from:

Product Matters!

Product Matters | 2016 – Issue 8:

Disruptive Innovation: Look Out Below

By Tim Rozar

“Faster. Cheaper. Better.” This mantra has been repeated in board rooms and bookstores to inspire the worthy pursuit of perfection in product and process innovations. To create sustainable efficiencies, innovations must be “faster. To create sustainable consumer demand and profit margin, innovations must be “cheaper.” To create sustainable competitive advantage, innovations must be “better.” Burdened with glorious purpose, would-be innovators seek the panacea that will unleash a torrent of value upon unsuspecting consumers and shareholders; but quickly they become paralyzed by the daunting nature of their quixotic quest.

Instead of faster, cheaper and better, what if a product or process innovation was twice as expensive but had speed and quality that were 10 times superior? Perhaps more interestingly, what if a product or business process had speed and quality that were only half as good as its competitors, but its price was 10 times cheaper? These innovations offer the potential to be truly disruptive to existing market competitors and, of greatest concern, often seem to appear out of thin air. Effective innovators will keep a keen eye open for the warning signals of lurking market disruptors. Most importantly, they will actively seek to disrupt their own existing business models rather than passively stand by while someone else does.

Characteristics of Disruptive Innovations

The term “disruptive innovation,” first introduced by Harvard Professor Clay Christensen more than 20 years ago, is perhaps one of the most used and misunderstood business concepts in recent memory. It can be confused with related concepts such as “radical innovation,” “breakthrough innovation,” or even “sustaining innovation.” Heated intellectual debate erupts in the blogosphere and Ivy League lecture halls as to which innovations are truly “disruptive.” (For example: the iPad—probably disruptive but not necessarily breakthrough; the iPhone—probably breakthrough but not necessarily disruptive.) Much of this linguistic folly can be discounted as mere semantics, but there are a

few key characteristics that distinguish innovations that are truly disruptive.

1) Redefine how product performance is measured

Disruptive innovations change the way consumers view product performance. In Christensen’s classic case of low-end disruption, a new product or service will be dismissed by existing market competitors as inferior despite having a compelling value proposition along non-traditional performance dimensions. For example, despite inferior strength and durability, paper disrupted parchment due to its lower production cost and broader usability. Despite inferior computational performance, handheld calculators disrupted desktop calculators due to their portability and convenience.

Disruptors understand that it might be ok to be inferior along traditional performance measures if they are disproportionately superior on others.

2) Create new consumer segments

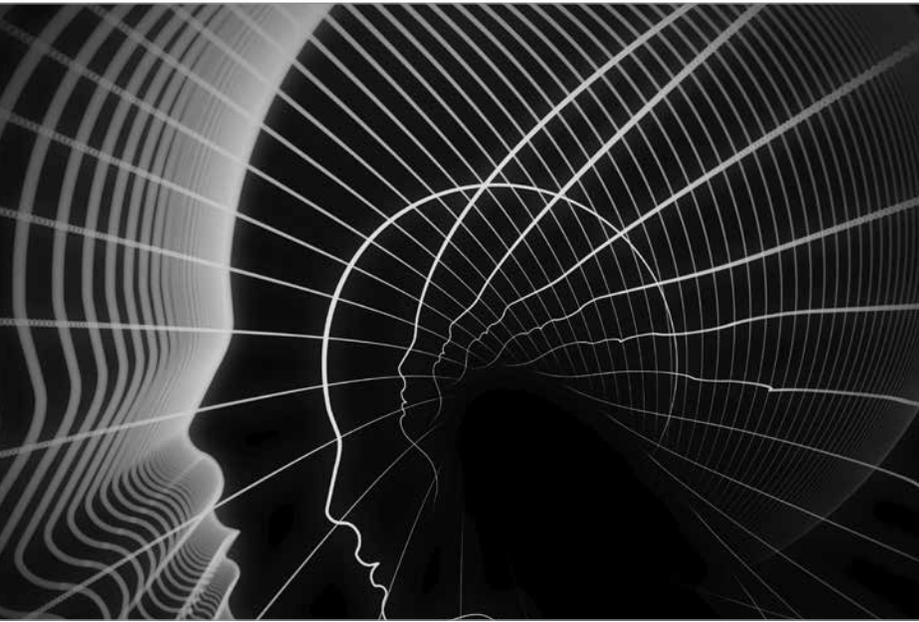
Disruptive innovations may appeal to new consumers who have not been previously served by the existing market competitors. These new markets may at first seem unattractive to current market competitors: the profit margin may be lower, the market segments may be smaller, and the products may lack sophistication. For example, manufacturers of 14-inch disk drives were so focused on meeting the speed and storage capacity needs of their existing mainframe customers that they missed out on the emerging minicomputer market. Ironically the 8-inch disk drive manufacturers, who arrived to fill that need, in turn largely ignored the emerging personal computer market that was better served by a 5.25-inch drive.

Disruptors realize that new consumer segments often grow to be larger and more profitable than anyone could have envisioned.



Tim Rozar, FSA, CERA, MAAA, is senior vice president, global R&D at RGA in Chesterfield, Mo.

CONTINUED ON PAGE 22



3) Change the business model and industry structure for existing market competitors

Disruptive innovations go well beyond technological advances and often redefine the existing paradigm and structure of the industry. These innovations challenge closely held assumptions within their industry and often turn them upside down. Henry Ford disrupted the automobile industry by challenging the assumption that cars could only be a high-end, customized luxury good. Amazon disrupted the retail industry by challenging the assumption that consumers would only buy books in bookstores.

Disruptors throw out preconceived notions based on what has not worked in the past and envision what might flourish in the future.

4) Steadily improve and then take off exponentially

Disruptive innovations that enter a market as “inferior” are often characterized by a rapid increase in performance. This trajectory can create solutions that eventually satisfy the needs of both new and traditional customers alike. As megapixels increased, digital cameras were able to credibly compete with traditional

film cameras and eventually came to dominate both the amateur and professional photography markets. Despite inventing digital photography, Kodak saw its lucrative film business become disrupted by digital competitors.

Disruptors see new innovations not for what they currently are, but for what they may become.

5) Seem obvious in retrospect

Disruptive innovations, especially those that transform an industry’s business model, often seem obvious in retrospect. In fact, the idea may seem too simple and compelling to understand how existing market competitors were unable to recognize it at the time. Blockbuster Video’s business relied on renting physical video tapes and DVDs in thousands of specialized retail outlets. In retrospect, the convenience and lower cost structure of both a DVD-by-mail model (Netflix) or a retail kiosk model (Redbox) seem like an obvious improvement to the business model. These new improved business models are now also under pressure from online streaming and the increased bargaining power of content providers. New innovations will undoubtedly emerge to respond to these threats, and although they may be difficult to imagine today, in retrospect they will probably seem obvious.

Disruptors can perform ante mortems on business models that seem ripe for change.

How to Disrupt Your Own Business

Motivated action is critical for survival in the face of disruptive forces. Inertia, denial and fear can immobilize seemingly smart, well-managed companies but if you are not prepared to disrupt your current business, someone else will. Here is a framework for identifying potential sources of disruption and proactively creating value from disruption.

1) Identify key trends and how they will intersect

No one has a crystal ball, but we may at least be able to recognize many of the major external and internal forces that influence our business and see how they may intersect. For example, Amazon was able to

take advantage of the intersection of trends in online technology, consumer purchasing preferences, and outbound logistics to create a disruptive retail business model.

Participants at the RGA Innovation Series at the 2013 Society of Actuaries Annual Meeting identified trends that would influence the insurance industry including: demographics, data analytics, technology, consumer preferences, fitness trends, macroeconomics, regulation, social attitudes, globalization and medical/diagnostics. By combining several of these trends together, participants could begin to envision emerging opportunities.

Choose a handful of specific trends and imagine how they might converge to generate disruptive opportunities.

2) Identify closely held assumptions—then throw them away

Disruptors view the assumptions that define an industry's collective mindset as an opportunity for differentiation. Many of these assumptions may be grounded in strong empirical evidence, but they can still be challenged in the right context.

At the RGA Innovation Series, Professor Anjan Thakor from Washington University's Olin Business School collected a list of insurance industry assumptions from attendees. Most table groups independently listed "life insurance is sold not bought" as the number one assumption that pervades the current business paradigm. Examples of other assumptions:

- "Life insurance is too complicated to sell online"
- "Customers need and want an agent"
- "Invasive underwriting is needed to effectively assess risk"
- "Insurance is a commodity product"
- "Mortality will always improve "

“ The best way to generate ideas is to generate a lot of ideas. Ideas should be sourced from a diverse group of associates, customers, distributors and partners. ”

Make a list of the assumptions that you think the industry or your company take for granted and imagine the business models, products or processes that could emerge when these assumptions are discarded.

3) Create a culture with a disciplined approach to idea generation and experimentation

The best way to generate great ideas is to generate a lot of ideas. Ideas should be sourced from a diverse group of associates, customers, distributors and partners. The difficulty is creating a mechanism to quickly filter through all of those ideas in a systematic manner. This search for speed is well-illustrated by the IDEO design-thinking approach using rapid prototyping: "fail faster to succeed sooner." Some ideas are discarded immediately because they are not feasible, scalable or strategically aligned. Parts of some ideas might be combined with another idea to create something new and original. Incentivize creativity and then experiment with purpose to find disruptive new market opportunities.

4) Partner with adjacent and non-adjacent businesses

It is impossible for any single company to be expert at everything. Interesting opportunities for innovation often appear by combining the strengths, capabilities and consumer relationships of two or more companies. For example, the insurance industry has long partnered with the medical research and diagnostic community to innovate the risk selection and stratification process.

CONTINUED ON PAGE 24

Inspiration may even come from companies in entirely unrelated industries. Progressive Insurance has partnered with SimCity to embed casualty insurance in the virtual gaming world to demonstrate the value of insurance to an underserved consumer market.

Collaborate with partners who have complementary skills, assets and determination to create innovative new solutions.

5) Define yourself by what you can do, not by what you sell

Effective business strategy requires companies to make disciplined choices within limited resources, but this does not mean that they should narrowly define themselves within the confines of their existing markets. Apple could have long ago made the sheltered strategic choice to be a “personal computer company” and continued to compete head-to-head with IBM, Dell, Compaq and scores of others. Instead, that “personal computer” company managed to redefine the handheld device market and sell more than 25 billion downloaded songs.

Look to your capabilities and those of your strategic partners and identify how those strengths might be leveraged in new ways.

6) Identify what customers need, even when they don't realize it yet themselves

Innovation occurs as a result of meeting the unique needs of customers, both existing and emerging. A company's current business can be improved by listening to the customers and sales force to identify pain points and opportunities for incremental improvement. Disruptive innovations on the other hand can be found by identifying needs that consumers may not even realize that they have. Tim Cook has said that “Apple has made products for years that people didn't know they wanted and now they can't live without.”

Perform controlled experiments to learn how consumers react in the real-world to new product offerings or sales processes.

Conclusion

Disruptive innovations redefine the competitive landscape of an industry. Disruptors look for new ways to compete by ignoring commonly held beliefs about consumer preferences. The insurance industry's reputation for strength and stability may create a perception that innovation is unnecessary, but this is simply not true. Disruptive innovations are necessary to sustain that strength and stability into the future. Change is already developing in the insurance industry as trends in technology, demographics and consumer preferences converge. The innovative solutions at the intersection of these trends may emerge from within the four walls of a century-old insurance company, or they may come from an ambitious upstart in a college dorm room. Either way, these solutions will redefine the way that consumers, distributors and insurance companies think about what insurance is and how it is sold. ■