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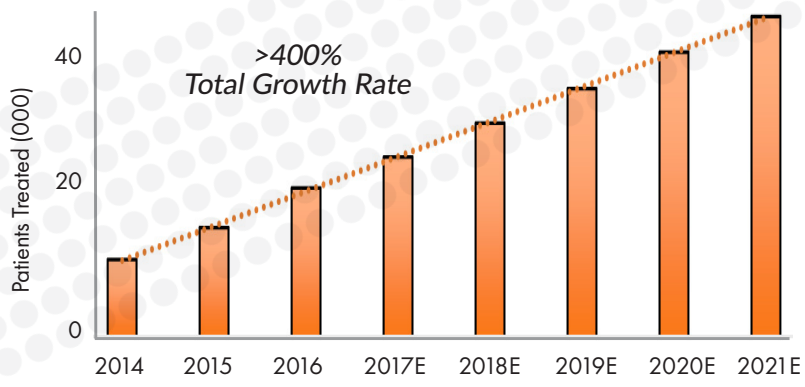
MedTech STRATEGIST

START-UPS TO WATCH

MARKET TRACK

See page 24

Projected Ischemic Stroke Patients Treated in the US 2014-2021



Solving the Prisoner's Dilemma:

Product Innovation, Solutions-Focused Business Models Can Help Counter Declining Medtech ROC

Return on Capital performance for healthcare product manufacturers has been steadily declining. While medtech companies typically attempt to counter ROC declines with cost-savings initiatives, they may achieve more substantial, long-term value by boosting innovation and shifting toward a business model focused on transformational products and solutions that create step-change customer value.

by
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KEY POINTS

- Based on Deloitte analysis of ROC trends of eight medtech peers, medtech companies have seen a steady 10-point drop in ROC over the last 10 years.
- Three trends are causing medtech companies to face a "prisoner's dilemma" in their challenges with ROC: hesitancy to invest in innovation given intense near-term competition, varied provider adoption of value-based care models, and lack of clarity on how investing in innovation can drive or suppress ROC.
- Deloitte analysis shows that medtech companies that focus on breakthrough product innovation—especially in new or underdeveloped markets—have experienced superior ROC versus their peers.
- Given the urgency reflected in the steady decline in industry ROC, now is likely the time for medtech companies to consider moving beyond a discrete product mindset to invest in a solutions-focused business model that lays out a clearer path to transformational innovation.

Deloitte research shows that Return on Capital performance (a ratio used to measure profitability and to determine a company's potential to create value) has been steadily declining for healthcare product manufacturers. Based on Deloitte analysis of ROC trends of eight medtech peers, medtech companies and generic pharmaceutical companies, in particular, have seen a steady 10-point drop in ROC over the last 10 years (*see Figure 1*). In contrast, healthcare service providers have been able to maintain steady, double-digit ROC performance over this same period.

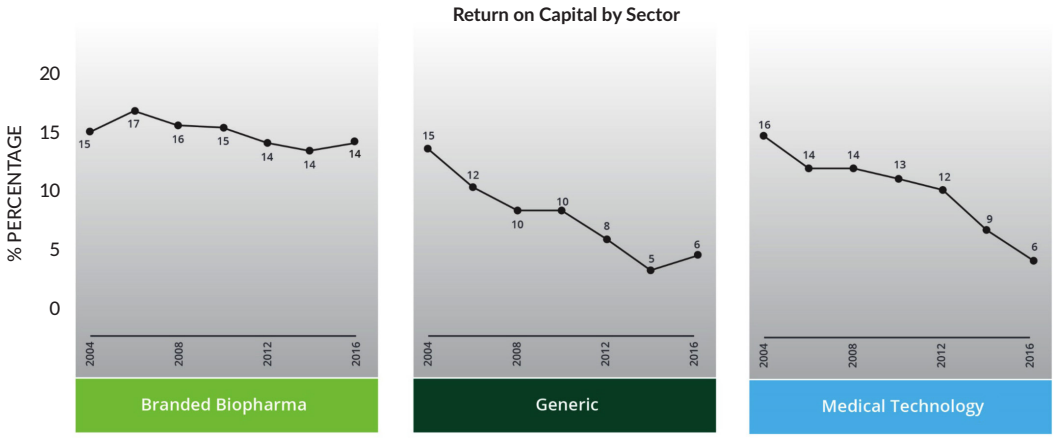
A key factor exerting downward pressure on ROC is the shift in purchasing power between medtech companies and healthcare providers. Traditionally, medtech sales have relied on relationships built with physicians and surgeons, in which purchase decisions are based largely on experience and personal preference. That sales model, however, has been changing. Many hospitals and health systems have been hiring procurement experts to streamline supply costs. As a result, physicians and surgeons are becoming less influential in medtech

purchase decisions. In a market where manufacturers' products may be difficult to differentiate in terms of patient outcomes, and product development efforts have often been focused on incremental features that healthcare providers desired rather than on addressing unmet needs for patients and hospital systems, many medtech companies are being pushed to compete on price.

Medtech companies typically attempt to counter ROC declines with cost-savings initiatives. Even though these should be pursued, organizations may achieve more substantial, long-term value by boosting innovation and shifting toward a business model focused on transformational products and solutions that provide added customer value.

Figure 1

Negative Trend in Life Sciences Sector ROC



Notes: Includes global leading peer-set companies. Generic companies have experienced consolidation in recent years, impacting ROC.

Source: Deloitte Development LLC

Our Take

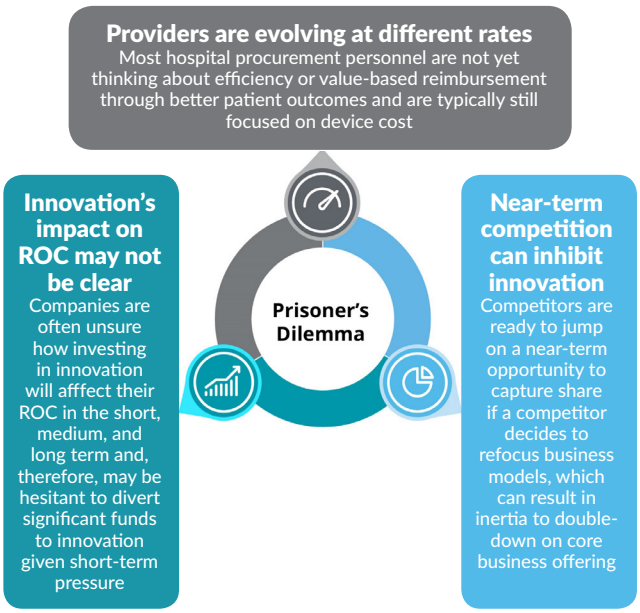
Medtech companies often face a "prisoner's dilemma" in their battle against ROC decline due to a confluence of three factors (*see Figure 2*):

1. Providers are evolving to value-based models at different rates.

The transition from a volume- to value-based payment model has been uneven among hospitals and health systems. Many medtech companies say value—meaning both cost and outcomes—isn't yet influencing purchase decisions. Hospital procurement managers, for example, are still generally rewarded for discounts they negotiate with medtech companies, rather than the impact a device has on outcomes and total costs of care. And many healthcare providers aren't yet paying close attention to the value that medical technology—especially major innovations—might offer. This can create a prisoner's dilemma for medtech manufacturers: Those that promote the value of their products in terms of outcomes and total cost of care will compete with companies that continue to use price as the primary differentiator—and price remains the motivation for many procurement managers.

Figure 2

A Prisoner's Dilemma Exists in Medtech's ROC



Source: Deloitte Development LLC

2. Innovation's impact on ROC may not be clear.

Many medtech organizations are unsure of the impact that investing in innovation will have on their ROC in the short-, medium-, and long-term future. Company leaders often lack visibility into customer and market insights relating to longer-term opportunities—current insight capabilities typically focus on assessing near-term performance—so they may be hesitant to divert significant funds to innovation, given board and shareholder pressure to deliver positive short-term financial results.

3. Near-term competition can inhibit innovation.

With competitors pursuing near-term share growth, the inclination of most incumbents is to double-down on their core business offerings in order to preserve their market share and their established revenue stream. Being the first player to introduce a new solution-focused business model could be considered too risky, as funds are limited and this investment could be at the expense of the core business. This keeps investments focused on near-term business versus long-term innovation.

How can medtech companies solve their prisoner's dilemma and move beyond incremental improvements to true innovation?

A Path Forward

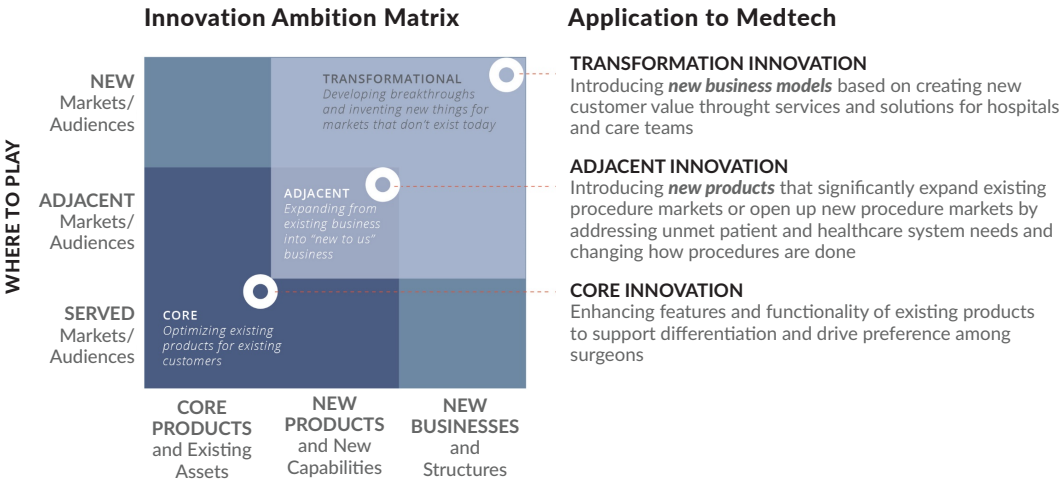
Given the urgency reflected in the steady decline in industry ROC, now is likely the time for medtech companies to consider moving beyond a discrete product mindset and to invest in a solutions-focused business model that lays out a clearer path to transformational innovation.

Innovation can be classified into three levels of ambition: core, adjacent, and transformational (*see Figure 3*). (*Also see "Managing Your Innovation Portfolio,"* Harvard Business Review*, May 2012.*)

- **Core innovation** focuses on growing in established markets by finding and building on knowable consumer behaviors. In medtech, this is primarily centered on incremental product innovation—adding new features and functionality to core product lines.
- **Adjacent innovation** focuses on growing by doing something differently—pushing into new markets or extending offerings. In medtech, this type of innovation can unlock growth in underdeveloped markets through the introduction of breakthrough products that enable new approaches to procedures. Adjacent innovation is driven by unique, proprietary insights into consumer needs and demand trends, market structure, competitive dynamics, and technology trends.
- **Transformational innovation** focuses on growing by inventing new things for markets that don't yet exist—moving beyond company walls through disciplined processes and deep customer understanding. In medtech, this could involve not just new products, but new business models based on solutions that create value for customers in new ways (and that are monetized by medtech companies in new ways). This type of innovation is driven by the ability to see opportunities in markets that are unfamiliar and to identify latent unmet needs that are not well recognized by customers.

Figure 3

The Innovation Ambition Matrix Applied to Medtech



Medtechs can shift their innovation investments to adjacent and transformation innovation that creates new value streams and new markets

Source: Deloitte Development LLC

Medtech companies that focus on core innovation via incremental improvements in product features or functions too often sink to the bottom-left of the Innovation Ambition Matrix, and are left wondering why their innovation pipelines are clogged, their ideas unambitious, and their returns disappointing. To help reverse their ROC's course, organizations can shift investments to adjacent and transformational innovation that creates new value streams and new markets.

Adjacent Innovation: Introducing Breakthrough Products

Deloitte analysis shows that medtech companies that focus on breakthrough product innovation—especially in new or underdeveloped markets—have experienced superior ROC versus their peers (based on Deloitte analysis of ROC trends of **Edwards Lifesciences Corp.** and **Intuitive Surgical Inc.** compared with medtech peers, utilizing Capital IQ data). As illustrated in *Figure 4*, Edwards Lifesciences has improved ROC by focusing on breakthrough product innovation for patient populations with high unmet medical need (high-risk or non-operable for conventional valve replacement). Intuitive Surgical has outperformed industry averages on ROC by introducing a market-shaping robotic surgical system and focusing innovation on expanding indications of use and making its products more user-friendly for physicians.

Transformational Innovation: Shifting the Business Model to Solutions

Deloitte research found that, over the last five years, medtech's share of healthcare industry profits has declined by 18%, with profits shifting toward non-manufacturing sectors that also have demonstrated higher ROC (based on Deloitte analysis of profit trends in the healthcare industry). Many medtech manufacturers can address these declining profits and, likewise, enhance their company value, by shifting their business model to focus on meeting customer needs and creating new direct revenue streams around truly innovative solutions that include value-creating services (e.g., education, process enhancement, data and analytics, and more). Through solutions-based business model innovation, products and services sold by medtech firms could become greater than the sum of their parts.

Medtech companies that contemplate taking this more complex path to transformational innovation can look to the example of computer hardware manufacturers in the early 1990s: Competition intensified as pricing pressure from new entrants made the overall sector less profitable. The companies that thrived were those that were able to shift their business model to position themselves as sellers of value-added solutions rather than simply product vendors (*see sidebar, Solutions Approach Sets IBM on Road to ROC Recovery*).

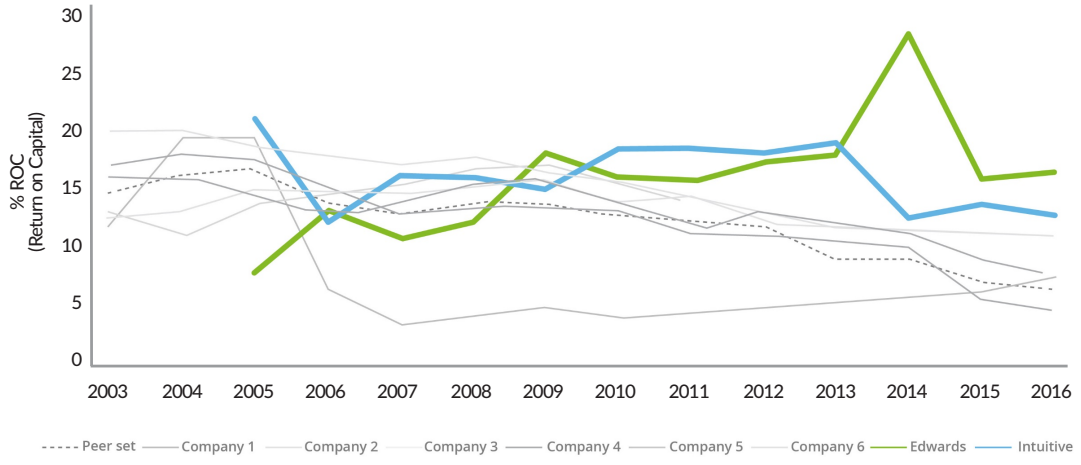
Guiding Principles for Effective Innovation and Transformation

Solving the medtech prisoner's dilemma won't be easy. It involves companies truly understanding their customers and their concept of value; aligning corporate culture and incentives to support a solutions strategy; and investing in innovation with the understanding that this is a long-term competitive play.

Medtech companies are starting to embrace business model diversification, but efforts tend to be more one-off than full strategy shifts. Going forward, companies looking to manage their portfolios for "total innovation" should be guided by the following principles:

Figure 4

Edwards Lifesciences and Intuitive Surgical ROC Compared with Peers



Source: Deloitte Development LLC

1. Be explicit about innovation ambition, then organize and execute accordingly. Transformative innovation should be protected from the "pull" of the core business.

2. Look beyond product innovation to help transform other elements of the business system.

3. Leverage unconventional insights about users to drive innovation throughout the value chain and uncover untapped opportunities in underdeveloped or new markets. Use techniques such as ethnographic research, customer co-creation, and rapid prototyping to help surface latent needs.

4. Invest in market development capabilities to help drive adoption of breakthrough products and solutions. Adjacent and transformative innovation involves a shift in sales approach (*see Figure 5*) from not just winning share but to also growing the market.

5. Don't assume innovation is just about creativity; **effective innovation requires discipline, as well**. Good governance and processes are necessary to effectively manage a pipeline of new solutions and business model concepts, just as they are for managing a pipeline of new products.

The Bottom Line

Just as leading computer manufacturers successfully reinvented themselves as solutions companies, a similar strategy could help medtech companies increase their ROC as well as their value to customers. A proposed path forward is to explore potential cost-saving and outcome-improvement opportunities with innovative hospital partners that are willing to try new ideas. While this can involve a bit of experimentation on both sides, demonstrating success could help tip the scales for medtech companies. Once a model is proven, companies should identify where to start—which geography or customer segment—and then see whether a successful approach can be scaled to include other hospitals. This approach can help medtech companies expand their role beyond product vendor by bringing solutions and value to the table.

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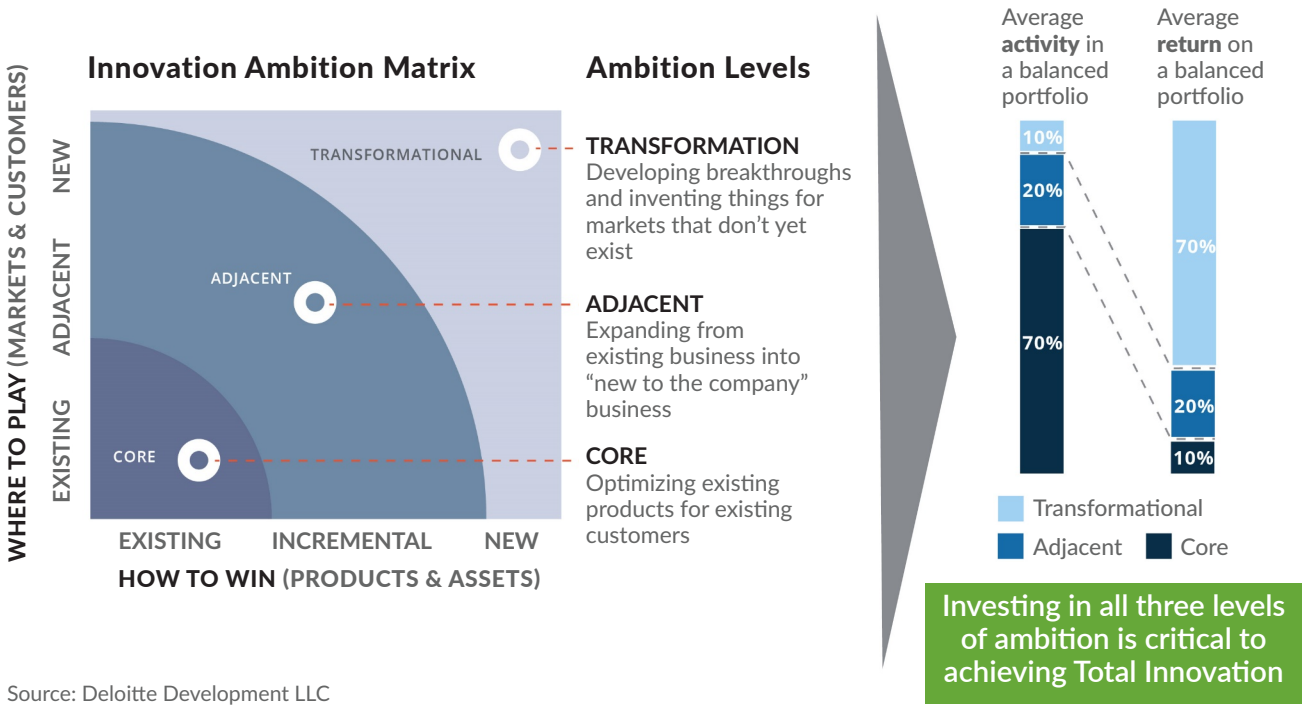
Editor's note: Sources for data underlying all figures available from the authors.

Figure 5

Medtech Companies Should Manage Their Innovation Portfolios for "Total Innovation"



Source: Deloitte Development LLC

Solutions Approach Sets IBM on Road to ROC Recovery

IBM experienced a massive ROC death spiral in the early 1990s but recovered after enacting measures to help restore and grow its failing PC business (*see Figure 1*).

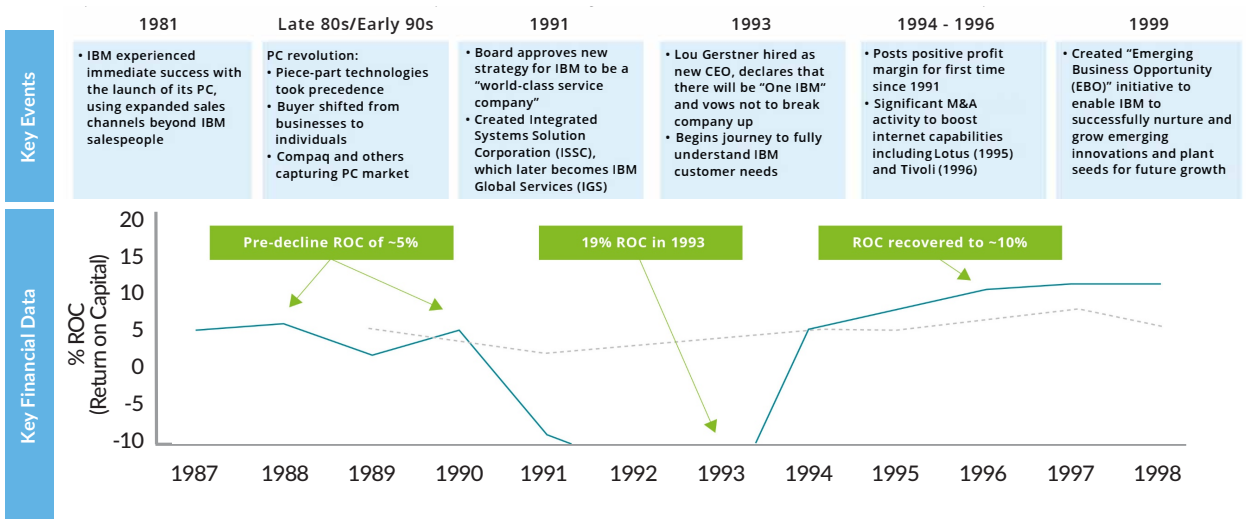
IBM adopted a strategy that moved the company from core to transformational solutions innovation by truly addressing unmet customer needs; the approach resulted in success as the company's revenue shifted from hardware to services. Among key strategies IBM employed to aid its turnaround were:

- Moving from a pure product focus to become a "world-class service company" (*see "IBM Global Services: A Brief History," May 2002*, https://www-03.ibm.com/ibm/history/documents/pdf/gservices.pdf)
- Creating an Integrated Systems Solution Corporation (ISSC), which later became IBM Global Services (IGS) (*again, see "IBM Global Services: A Brief History," May 2002*, https://www-03.ibm.com/ibm/history/documents/pdf/gservices.pdf).
- Listening to customers to discern where their needs were not being satisfied and forming strategy around these gaps as an integrated solutions provider. Investing additional funding and refinement to spur growth of IBM Global Services (IBM's offering that brings together hardware, software, and services, while being equipment-agnostic); and moving product offerings toward open systems because that's what customers wanted (*see "He Loves to Win. At I.B.M., he Did,"* The New York Times*, March 10, 2002*, http://www.nytimes.com/2002/03/10/business/he-loves-to-win-at-ibm-he-did.html; https://www-03.ibm.com/ibm/history/history/year_1995.html; https://www-03.ibm.com/ibm/history/history/year_1996.html.)
- Reinventing and reinvigorating company culture, including creating the "Emerging Business Opportunity (EBO)" initiative to spur portfolio innovation (see http://www.hbs.edu/faculty/Publication%20Files/Kerr-Innovation15_439c4e1b-9b5f-4565-8f22-d9ff0acfe260.pdf; and http://www.bus.umich.edu/KresgePublic/Journals/Gartner/research/114100/114129/114129.html),

Based on Deloitte analysis of ROC using CapitalIQ data, IBM's strategy shift helped it rebound from a -19% ROC in 1993 to ~10% three years later. Unfortunately, other computer hardware vendors did not fare as well. For example, Deloitte analysis showed that Digital Equipment Corp. (DEC) also experienced ROC declines, but stayed focused on manufacturing its profitable microcomputer product and serving its current best customers, even though consumer preference was shifting to PCs. Ultimately, DEC's inability to address the PC revolution and the company's lack of clear strategy led to its selling off assets and, finally, its acquisition (see https://www.inc.com/minda-zetlin/the-1-mistake-that-causes-most-innovators-to-fail-according-to-a-brilliant-harva.html).

Figure 1

A Path Toward Success–IBM Case Study



Source: Deloitte Development LLC