

Chapter 1: The Three Pillars That Drive the Success or Failure of Healthcare Innovations

From my successes and failures as a healthcare entrepreneur and my many other healthcare innovation experiences—as a member of the board of directors of many public and private healthcare firms and the creator of MBA courses on Innovating in Healthcare at Harvard Business School—I distilled the Three Pillars on which a successful healthcare innovation rests, as shown in Figure 1.1.

Figure 1.1 The Three Pillars of Successful Healthcare Innovation. [c01f001.png]

The Three Pillars that support a successful healthcare innovation are:

Figure 1.2 Pillar One: The Type of Innovation. [c01f002.png]

Pillar One: Identifying what the innovation should accomplish.

Many innovators think their innovation can solve all healthcare problems—control costs, improve consumers’ lives, and disseminate a technology. But it is virtually impossible to achieve all three goals simultaneously or even to achieve two of the three.

It is essential that you clarify which one of these three goals the innovation is intended to effect—disseminating technology, increasing consumer convenience or empowerment, or cost-cutting. Each of the three types of healthcare innovations and their key success factors are discussed in the successive Part II of the book.

Figure 1.3 Pillar Two: Six Factors Alignment. [c01f003.png]

Pillar Two: Assuring that the innovation is aligned with the Six Factors in the environment that can make it or break it. The Six Factors and how to align your types of innovation with them are described in Part III of this book.

Figure 1.4 Pillar Three: Business Model Elements. [c01f004.png]

Pillar Three: Building a business model (Figure 1.4) that contains the ten essential elements for a successful organization. The ten (yes, ten!) essential elements for a successful business model and how you can best implement them are described in Part IIV of this book.

These Three Pillars characterize every successful healthcare innovation. They consist of nineteen elements (Figure 1.5). The absence of one or more of these pillars or their elements causes the failure of many innovations. Their prevalence accounts for their successes.

In the next three parts of this book, I describe how you should implement each of these Three Pillars to assure the success of your healthcare innovation.

Figure 1.5 The Big Nineteen Elements of Successful Healthcare Innovations. [c01f005.png]

Pillar One: Successful Healthcare Innovations Identify Their Unique Type of Innovation

There are three different types of healthcare innovations (see Figure 1.6).

Figure 1.6 The Three Different Types of Healthcare Innovations. [c01f006.png]

These three kinds are briefly described in Table 1.1.

Table 1.1 Pillar One: Type of Innovation.

[insert TC icon]	Technology-Commercializing innovations. This type of innovation is based on commercializing technology to provide the new diagnostics, prevention, treatments, cures, sensors, monitors, and connectivity that improve the quality of healthcare.
[insert CC icon]	Cost-Cutting innovations. This type of innovation relies on cost-cutting strategies to achieve improved healthcare efficiency and enable better access, without diminishing quality.
[insert CF icon]	Consumer-Facing innovations. These innovations increase consumers' empowerment and convenience so they can readily encounter better healthcare.

You Cannot Do Them All

No one managerial team can usually accomplish all three, or even two, of the three different types of innovations simultaneously because of the differences in their mission.

The three types of innovations are so distinctly different from one another that they cannot be accomplished simultaneously. Entrepreneurs who try to implement all three, or even two, of these different types of innovations in one firm are bound to fail.

As a simple illustration of why they are so different, think about the different exit strategy for each type of innovation if your eventual goal is to sell it to another, larger firm:

- **Technology-Commercializing Exit Strategy:** Healthcare technology innovations are typically purchased by other technology firms. These purchasers understand the product and already have customers and a sales force for it.
- **Cost-Cutting Customer:** Innovations that control healthcare costs are of interest to other cost-controlling firms, such as health insurance companies, governments, or employers who provide healthcare to their employees.
- **Consumer-Facing Customer:** Healthcare innovations that empower and/or add to the consumer's convenience are of interest to other Consumer-Facing firms that already sell to that customer, such as pharmacies or direct-to-consumer healthcare apps.

Or think about the differences in the sales and marketing strategy appropriate to each type of innovation:

- ***Technology-Commercializing Customer:*** Healthcare technology is typically purchased by other technologists. The sales and marketing strategy primarily focuses on the ability of the technology to meet their needs.
Doctors and other clinical personnel must be involved in the dissemination of clinical medical technology. The strategy must take their needs and wishes into account. They are key for the sale of, for example, therapeutics; preventatives, such as vaccines; medical devices; instruments; sensors; and monitors.
Information technologists are similarly essential for the dissemination of various kinds of healthcare information technology.
- ***Cost-Cutting Customer:*** Innovations that control healthcare costs must be vetted by a cost-controlling customer. The sales and marketing strategy primarily focuses on how the innovation controls costs, without impairing quality or access.
Typically the key financial person in the purchasing organization is the most important decision maker for this kind of innovation.
- ***Consumer-Facing Customer:*** Healthcare innovations that empower and/or add to the consumer's convenience are usually sold directly to the consumer or through agents, such as employers or insurers, acting on their behalf. The sales and marketing strategy primarily focuses on how the innovation enhances the customer's life by increasing their convenience or empowerment.

Then too each different kind of innovation requires a different kind of CEO:

- ***Technology-Commercializing CEO:*** This kind of innovation requires an entrepreneur with a substantial record of commercializing medical technology and deep knowledge of the facts, theory, and practice underlying the technology.
- ***Cost-Cutting CEO:*** This kind of innovation calls for a financial type of entrepreneur who has controlled healthcare costs without impairing its quality.
- ***Consumer-Facing CEO:*** This kind of innovation needs an entrepreneur who has improved consumer empowerment and convenience in healthcare.

As you see, the three different types of innovations require different types of CEOs, sales and marketing strategies, and relationships with the firms that will provide their eventual exit.

Yet, despite these differences, many established firms fail because they misclassify the type of innovation.

See, for example, what happens when a **Technology-Commercializing** firm thinks that its technology is so fabulous that **consumers** will fall in love with it. The failure of Google Glass illustrated how this fabled technology firm failed to serve consumers.

type="caseStudy"

Google Glass

[insert c01uf001.png]

Source: Photo by Unknown Author is licensed under CC BY-SA.

Google Glass was a pair of glasses introduced with much fanfare by the fabled technology firm **Google**. It enabled users to call up the Internet and to take pictures on their glasses. It was intended for healthcare consumers, among other users.

But the glasses were unattractive, did not work consistently, and cost a hefty \$1,500. They were products that only a technologist could love, designed by and for a technology lover and not an average consumer who wanted empowerment and convenience. The product died an early and unheralded death.

But Google did not give up in its attempts to reach the healthcare consumer. It bought **Fitbit**, a firm whose patented wearable sensors had attracted tens of millions of social media users. But Fitbit was not nearly as good at disseminating wearable sensors as **Apple**. FitBit lost enormous market share to Apple.

Google finally returned to its **Technology-Commercializing** identity and deployed Fitbit's sensors to gather some of the data needed for clinical trials of new medical technologies.¹

Pillar Two: The Six Crucial Factors in Business and Government

Each of the three types of healthcare innovations must be well aligned with the Six Factors in the external healthcare environment that can make or break that type of innovation (see Figure 1.7).

These factors provide the context in which the business model is built. They include the sources of **Financing** of healthcare innovations; the trends in **Technology** and in **Public Policy**; the needs and powers of healthcare **Consumers**; and the demands for **Accountability**. The key sixth factor is the **Structure** of the healthcare environment and the alignment with the friends and foes who lurk within it.

Figure 1.7 Six Factors Alignment. [c01f007.png]

These Six Factors are introduced in Table 1.2. Their specific impact on the three different types of healthcare innovations are discussed more fully in Part II.

Table 1.2 Introducing the Six Factors.

<p>[insert Struc icon]</p>	<ul style="list-style-type: none"> • Structure <p>Most of the <i>status quo</i> technology manufacturers and providers of services and insurance in the healthcare system have the clout to be your good friends or your mortal enemies. You must align with them, either by converting these whale-sized foes to friends or by staying out of their gunsights.</p> <p>But there are also minnows swimming in the healthcare innovation sea. Some of them are your potential competitors and some are your potential partners. Most will not succeed. In this book, you will learn how to identify the likely winners and how to partner with or neutralize the losers.</p>
<p>[insert Fin icon]</p>	<ul style="list-style-type: none"> • Financing <p>The Financing factors include reimbursement for healthcare services, insurance, and technology and the sources of money to begin and grow the innovation.</p> <p>The primary sources for healthcare debt or equity capital</p>

	<p>financing have different strategies and vary in their interests in the three different types of innovations. You should understand their strategies and likely fit with your type of innovation before you approach them for the capital you need to start and to continue funding your innovation.</p> <p>Healthcare reimbursement is complicated. You can align it with your innovation by understanding how it is formulated and implemented. In developed countries, you should understand how the third parties—insurers, employers, and governments—pay for most healthcare services and technology with complex methodologies implemented through multiple powerful groups. In developing countries, in contrast, you should understand how to reach the consumer groups who primarily pay directly for healthcare out of their own pocket.</p>
<p>[insert Tech icon]</p>	<ul style="list-style-type: none"> • Technology <p>You should align your innovation with technologies that either enable or compete with it. Every one of the three types of healthcare innovations involves the Technology factor in some way. Even Consumer-Facing and Cost-Cutting innovations rely on it.</p> <p>There are many <i>caveats</i> in the Technology factor. For example, do not jump right in—the first mover in a new medical technology venture typically is not the winner; do not get siloed by focusing on only one type of technology; and do not permit yourself to get outlawyered. Healthcare technology is governed by a thicket of laws, ranging from regulations that must be followed before the innovation can be commercialized, to patents, production, copyrights, and licenses. You should know how to align with all of these important areas.</p>
<p>[insert Acct icon]</p>	<ul style="list-style-type: none"> • Accountability <p>Empowered consumers, regulators, and cost-pressured financing sources demand accountability from Consumer-Facing innovators; Cost-Cutting innovators must demonstrate that they can achieve cost control without diminishing quality and access; and Technology-Commercializing innovators must show cost effectiveness and long-term safety.</p> <p>Play offense, not defense, when it comes to accountability. Successful innovators not only respond to accountability demands but also help to shape them. Unlike public policy regulations, which emanate from a government, the Accountability factor's requirements come from private sector stakeholders.</p>

<p>[insert Con icon]</p>	<ul style="list-style-type: none"> • Consumers <p>Consumers are all too often dismissed as ignorant or nuisances by stakeholders and policy experts. Powerless too: after all, they are called “patients,” as in “you be patient because my time is more valuable than yours.” These negative attitudes can hamper dissemination of your innovation.</p> <p>Make consumers your friends, not your enemies. Consumers feel strongly about healthcare and influence it in many ways. They are time stressed—they do not want to be “patient”—and they want to be empowered.</p>
<p>[insert PubPol icon]</p>	<ul style="list-style-type: none"> • Public Policy <p>Regulators can flex their muscles at any time and stop your innovation dead in its tracks.</p> <p>They are influenced by each of the other Five Factors. The Consumer factor, for example influenced public policy when patients with rare diseases convinced Congress to pass the Orphan Drug Act, which spurred the creation of a number of drugs for their rare diseases.</p> <p>Regulation of all healthcare innovations is murky and extensive. The successful innovator understands the regulations and the pressure from the other Factors that shapes them. She figures out how to influence them so that the regulations best align with her innovation.</p>

Pillar Three: Finding the Right Business Model Elements for Your Innovation

To run an innovative venture, you need a business model that puts together all the elements that are consistent with the type of innovation and its alignment with the Six Factors. The business model should include all ten of the elements shown in Figure 1.8.

Ten elements to build a successful healthcare business model may seem like a lot; but remember that the size of the healthcare sector in the U.S. exceeds

the entire GDP of India. Constructing a viable business model for India surely requires at least ten business elements.

The ten elements are fully discussed in Part III.

Figure 1.8 The Ten Business Model Elements. [c01f008.png]

These elements are common to all three types of healthcare innovations, but they are applied in different ways in each type.

For example, Element 5, the competitive advantage element for a **Consumer-Facing** type of innovation, will likely differ from that of a **Technology-Commercializing** one. The Consumer-Facing venture’s competitive advantage may rely on its management, the consumer-friendliness of the innovations, and its skill in responding to consumers, while that of a Technology-Commercializing venture will rely much more on the strength of its intellectual property and the safety and efficacy of the technology.

The most critical elements are outlined in Table 1.3.

Table 1.3 Introducing the Crucial Elements of a Healthcare Innovation’s Business Model.

<p>[insert Cav icon] [insert Basic icon] [insert NoLit icon] [insert TB icon]</p>	<ul style="list-style-type: none"> • Caveats <p>Tough-minded market research helps to establish what your customers want and the value of the market.</p> <p>But all too many innovators are true believers, flush with enthusiasm. All too often, they skip this step to create what they want, with little knowledge of their customers’ desire for the innovation and/or of the size and competitive structure and sales channels of the market they are entering.</p> <p>For this element, basic is beautiful—the innovators need to assure that their ideas tie to basic, well-researched facts about the sector he plans to innovate.</p>
<p>[insert WAI icon]</p>	<ul style="list-style-type: none"> • What Am I? <p>The process of building a business model requires clear identification of what you hope to accomplish: Technology-Commercialization; Cost-Cutting; or Consumer-Facing innovations.</p>

<p>[insert 6FA fig]</p>	<ul style="list-style-type: none"> • Six Factor Alignment <p>In this element, you evaluate the alignment between your type of innovation and the Six Factors in the environment and develop strategies to align it as best as possible.</p>
<p>[insert SMA icon]</p>	<ul style="list-style-type: none"> • Strategic Market Assessment <p>In this element, you research the essential characteristics of your market: the product attributes your customers value; the size of that market, typically called the TAM (total addressable market); the characteristics of your innovation versus those of your main competitors; and the length of the sell cycle to your customers.</p>
<p>[insert CS icon]</p>	<ul style="list-style-type: none"> • Competitive Strategy <p>Here you develop a compelling managerial, legal, pricing, product design, and/or economic competitive strategy for the sale and marketing of your innovation. Timing is also an important strategic element: should you be a first mover or hang back and learn from others' experiences?</p>
<p>[insert FV icon]</p>	<ul style="list-style-type: none"> • Financial Viability <p>Here you determine if your innovation is financially viable by calculating how much market share—i.e., share of the TAM—you will need to break even: earn revenues that equal expenses. If your innovation requires a hefty market share to achieve break even, it is likely not viable.</p>
<p>[insert MA icon]</p>	<ul style="list-style-type: none"> • Managerial Assessment <p>In this crucial element, you determine the characteristics of the CEO who can attain your goals.</p>
<p>[insert Sust icon]</p>	<ul style="list-style-type: none"> • Sustainability <p>Here you determine how to sustain the revenues, costs, and management of the innovation. Successful innovations in large TAMs attract strong competitors that diminish</p>

	<p>their sustainability. In this element, you also delineate the financial risk of the innovation and how best to manage it.</p>
[insert Val icon]	<ul style="list-style-type: none"> • Valuation <p>This element assesses the value of the firm and who is most likely to finance it, given its risks and opportunities. You then should assess whether this valuation is consistent with your personal values and strategic goals.</p>
[insert DG icon]	<ul style="list-style-type: none"> • Do Good <p>This element helps you to determine whether your innovation is doing good for society. Increasingly firms are reporting on granular aspects of their Environmental, Social, and Corporate Governance (ESG) attainments, which typically include:</p> <ul style="list-style-type: none"> • Environmental <ul style="list-style-type: none"> ▪ Climate crisis; Sustainability • Social <ul style="list-style-type: none"> ▪ Diversity; Human rights ;Consumer protection; Animal welfare • Corporate governance <ul style="list-style-type: none"> ▪ Management structure; Employee relations; Executive compensation; Employee compensation. <p>Healthcare innovations that “do well” financially but do not “do good” for society are simply not an option.</p>

Lessons Learned from My Successful and Failed Entrepreneurial Experiences

In this section, I describe how this Three Pillar framework partially evolved from my entrepreneurial successes and failures.

Pillar One: Successful Healthcare Innovations Identify What Kind of Innovation They Are

All Three Pillars worked well with our latest successful innovation, a **rapid infusion pump** that pumped heated blood into people who were bleeding to death from various traumatic injuries, such as automobile accidents or gunshot wounds. It was also used for women who unexpectedly massively bled after giving birth.

The pump was used by hospitals with **trauma centers** and by **militaries** all over the world.

[insert TC icon]

It was a **Technology-Commercializing** innovation—we had a new medical device for medical providers, a high-tech pump that rapidly infused blood into people who would otherwise bleed to death.

The device appealed to technologists—trauma surgeons, anesthesiologists, nurses, and medics who used their technological skills to stop patients from bleeding to death. It had features they wanted—it heated the blood, vented air bubbles in the fluid that could cause strokes, and enabled them to control important variables, such as the flow rate. Our sales and marketing strategy emphasized these features. We thought that if we wanted to exit, our innovation would likely be bought by another technology firm that sold complementary products.

Pillar Two: Successful Healthcare Innovations Are Well Aligned with the Six Factors

Successful healthcare innovations are well aligned with the Six Factors in the business and healthcare environment that can make or break an innovation. Our business was well aligned.

[insert Tech icon]

We had good intellectual property and regulatory clearances for our **Technology** that gave us distinct advantages over competitive pumps.

[insert Acct icon]

We had good **Accountability**—our product had ample evidence that rapid infusion saved lives.

[insert Struc icon]

We were aligned with the **Structure** force—the healthcare delivery sector responded well to medical technologies that demonstrably saved lives.

[insert Fin icon]

We had good sources of **Financing**—trauma centers and militaries all around the world were already set up to pay for technology that saved the lives of their citizens and soldiers.

The ready availability of these reimbursement sources enabled us to finance the firm ourselves.

[insert Con icon]

We had good **Consumer** alignment—every aspect of the product was carefully designed to meet the needs of the technologists who used it.

[insert PubPol icon]

We were well aligned with **Public Policy**—treating trauma was recognized as an important public health goal and we passed all the global regulatory hurdles for medical technology. Without due attention to the regulatory environment, we would not have been able to market the product legally.

Pillar Three: Successful Healthcare Innovations Have Great Business Models

We organized a good business model, too; but it was hardly conventional. Our business model broke many Business 101 rules.

To fulfill the needs of our type of innovation and the alignment we sought with the Six Factors, our asset-intensive business model went against considerable conventional wisdom: our organization was vertically integrated; we manufactured all the machines and the accompanying disposables that held the blood instead of outsourcing their manufacture. In addition, we made them in high-labor-cost Massachusetts. And we hired our own sales force, rather than using distributors. And we also kept a whole lot of inventory. And, because the motto of our Ph.D.

physicist CEO was “100 percent,” our quality control staff was the second largest in the firm after manufacturing.

Business 101 would have decreed this as an excessively costly business model. This business model needed a lot of capital to buy manufacturing equipment and space; pay manufacturing, quality control, and sales expenses; and tie up money in inventory.

Sounds like a recipe for financial disaster, right?

We were doing things that a **Cost-Cutting** type of venture would never do: we were manufacturing and selling ourselves rather than outsourcing these functions to lower-cost vendors; keeping lots of inventory of pumps and disposables in our warehouse; and investing lots of money in our own sales force and in quality control.

Kaching!

Yes, this was an expensive model, but our customers knew that we could always rapidly supply them with the life-saving equipment they needed in case of emergencies. They also knew that we had sufficient internal resources so we could quickly do our best to correct any problems.

[insert CS icon]

Our **competitive business strategy** was also unconventional. We were *not* the **first mover** in the field. Many people will advise you that being a first mover is a great strategy. Not for this business and not for many other healthcare innovations. We learned from the failures of the first mover by being a second mover.

Some also advise you to “**fail fast**,” but we did not want to fail—fast or slow—with this life-saving equipment. And we did not want to waste the precious time of the physicians who learned to use a device we would later dub a failure.

Instead, we waited and learned from the mistakes of the first mover. With time, we saw that the competitor’s product had some technological flaws. We spent a lot of money to design a product that corrected them. We spent a lot of time to test the product. We did not “fail fast.” We “succeeded slow.”

The first mover, a huge firm, was the rabbit that initially had much more market share than we did; but the tortoise second mover, us, eventually overcame the hare with our superior technology.

[insert Val icon]

We also had an unusual capital financing strategy: we funded the firm ourselves so we could do good and not only do well.

[insert DG icon]

We could make decisions that helped us sleep well at night. For example, during the Great Recession, although business revenues fell, we did not lay anybody off. Our manufacturing and sales staff were like members of our family. When the recession ended, those well-trained personnel were ready to go.

Further, because we financed the firm, we could invest considerable engineering resources money in perfecting an infusion device for a product that yielded small revenues and was technologically challenging—a rapid infuser for infants who suffered from traumatic injuries. If we did not engineer it right, rapid infusion could blow up their tiny, fragile circulatory systems.

Many venture capitalists would have stopped us from “wasting this money” on such a small market with such challenging engineering requirements, but because we owned the firm, and worried about children with traumatic injuries, we could do what we thought right.

Table 1.4 The Key Business Model Elements of the Rapid Infusion Technology-Commercializing Innovation.

<p>[insert Cav icon] [insert Basic icon] [insert NoLit icon]</p>	<ul style="list-style-type: none"> • We made sure our business model was based on cold, hard facts and not fantasy fiction. We conducted research to understand the needs of our customers and the hospitals, clinical staff, and militaries that employed them. We did not tell them what they should do. They told us what they needed.
<p>[insert SMA icon]</p>	<ul style="list-style-type: none"> • We conducted strategic market assessment with our customers to determine the size of the market, the most desired product characteristics, the sales channels, the marketing strategy, the price, the sales strategy, and the length of the sell cycle.

<p>[insert CS icon]</p>	<ul style="list-style-type: none"> • We implemented managerial, legal, economic, and product design competitive strategies that made it hard for our competitors to dislodge us. • We implemented a compelling second-mover competitive strategy for sales and marketing by learning from the first mover’s successes and failures. • We used a razor (a low-priced pump) and razor blade (disposable blood bag) product and pricing model that created high switching costs. • We devised value-based pricing strategies; i.e., our prices were partially based on the savings we created for hospitals.
<p>[insert FV icon]</p>	<ul style="list-style-type: none"> • Although we increased our break-even point by keeping a lot of inventory and human resources capacity so that we could rapidly respond to our customers’ needs in cases of mass trauma, such as bombings, our customers knew they could count on us to supply their needs as rapidly as possible.
<p>[insert MA icon]</p>	<ul style="list-style-type: none"> • The scientist/entrepreneur CEO inspired our employees with his competence—he programmed the machine in machine language, an astounding programming feat—and his motto of “100 percent” quality for our life-saving device.
<p>[insert Sust icon]</p>	<ul style="list-style-type: none"> • We assured that our costs and revenues were sustainable by having many different sources of revenue and many different vendors. We did not put all our eggs in one basket. • We assured managerial sustainability by treating our employees as family, enabling ownership, and walking the talk: we did not lay people off at times of recession. • We minimized financial risk by relying on internal capital sources.
<p>[insert Val icon] [insert FinRisk icon]</p>	<ul style="list-style-type: none"> • Our firm was not another Apple but, instead, a great medium-sized business with few

	<p>financial risks.</p> <ul style="list-style-type: none"> • We were awarded grants from federal government programs that financed small innovative technology businesses. • We financed the company ourselves. This slowed our growth but allowed us to make the research, manufacturing, and employee retention decisions we thought were right.
[insert DG icon]	<ul style="list-style-type: none"> • Many of our customers—bless them—assured us that our innovation kept people alive.

When One of the Three Pillars Fails

I have had many failures, too. Because the lessons people learn from their failures are painful and seared into them, they often learn more from failure than from success.

I sure did.

UTI Drink: What Am I? Mistake

[insert CF icon]

This **cranberry extract** drink was vetted by a “Professor of cranberries” for its excellence in avoiding or ameliorating ubiquitous, painful **chronic urinary tract infections (UTIs)**. I thought it was a **Consumer-Facing** business and went after the big retail pharmacies as a distribution channel. The healthcare consumer business called for tens of millions in marketing expenses and terrific social media expertise. My team had neither.

[insert CC icon]

But the **type of business** was not **Consumer-Facing**; it was about **cutting the costs** of those who treated UTIs. The product should have been sold to **nursing homes** and hospitals in which UTIs are rampant. It could have saved substantial labor costs and helped the patients as well; but by the time we figured this out, my team and I were sick and tired of the product.

We had a bad **business model**, too. We were the wrong management team for the Cost-Cutting type of innovation. We had people from major healthcare retailers on our team. Instead, we should have brought in new management who were experienced in selling Cost-Cutting innovations to healthcare institutions; but we had run out of steam by spending too much time on the wrong type of business model.

Bundled Healthcare: Six Factors Alignment and Business Model Mistakes

[insert CF icon]

Bundled Healthcare was a **Consumer-Facing** healthcare supermarket that enabled people who needed a surgical procedure to shop for a bundle of care. If they needed a new knee, for example, they would obtain the price and quality ratings for providers who gave them everything they needed. They would no longer need to shop separately for a hospital, a doctor, an imaging site, and physical rehabilitation and pain therapists.

Here I wasted a lot of money by ignoring two of the Three Pillars. Although I did identify the innovation as a **Cost-Cutting** one, the bundling supermarket was a first mover—the first of its kind. Mistake one. I also developed a poor **competitive strategy** that aligned badly with the Six Factor of Financing. I put all my eggs in one Financing basket. I invested considerable effort in obtaining one source of funding from the Center for Medicare and Medicaid Innovation of the U.S. federal government. The Feds did not understand this first-off, complex, entrepreneurial model. When the funding did not materialize, the company folded.

[Insert Text Break Here]

Applying the Three Pillars to Your Innovation

In the next parts of the book, we will discuss how to identify innovations as one of the three types, how to align them with the Six Factors, and how best to create the key elements of their business model.

The book concludes with the strategies and challenges for innovating established healthcare firms and a review of the golden future for healthcare innovation.

You are likely reading this book because you want to innovate health care. To get started, please list the innovation(s) you have in mind and assess how they fit with each of the Three Pillars. You will be able to expand your answers after each of the three successive parts of this book.

Practice: My Healthcare Innovation and the Three Pillars.

Pillar One: Type of Innovation		
Technology-Commercializing	Consumer-Facing	Cost-Cutting
<u>[insert TC icon]</u>	<u>[insert CF icon]</u>	<u>[insert CC icon]</u>
Pillar Two: Is It Well/Poorly Aligned with the Six Factors? (choose either Well or Poorly)		
	Well Aligned	Poorly Aligned
<u>[insert Struc icon]</u> Structure <u>[insert Fin icon]</u> Financing <u>[insert Con icon]</u> Consumers <u>[insert Tech icon]</u> Technology <u>[insert PubPol icon]</u> Public Policy <u>[insert Acct icon]</u> Accountability <hr/> <hr/>		
Pillar Three: Have I Fully Considered the Following Elements of My Business Plan?		
<u>[insert Cav icon]</u> Caveats <u>[insert SMA icon]</u> Strategic Market Assessment <u>[insert CS icon]</u> Competitive Strategy <u>[insert FV icon]</u> Viability <u>[insert MA icon]</u> Management <u>[insert Sust icon]</u> Sustainability <u>[insert Val icon]</u> Valuation <u>[insert DG icon]</u> Do Good		

Notes

1. For more, see Regina E. Herzlinger “FitBit,” HBS Case No. 317-007 (Boston: Harvard Business Publishing 2021).

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