

NADYA ZHEXEMBAYEVA

# OVERFISHED OCEAN STRATEGY



POWERING UP INNOVATION FOR A  
RESOURCE-DEPRIVED WORLD

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## **More Praise for *Overfished Ocean Strategy***

“Amid the sea of dry sustainability books, *Overfished Ocean Strategy* is a forceful tide of cutting-edge business stories and essential facts brought vividly to life. Zhexembayeva writes with passion and experience about radical business strategies for a smarter, not just greener, world. She engages our senses and emotions to deliver the broad brushstrokes of what it will take to succeed in the future in business. A brilliant and refreshingly fast-paced read!”

—**Chris Laszlo, Associate Professor of Organizational Behavior, Case Western Reserve University, and coauthor of *Embedded Sustainability***

“*Overfished Ocean Strategy* delivers five simple principles for transforming business, not just through the next generation of sustainability but through truly smart innovation. All those who want to create new market space while creating deeper meaning for themselves and customers need to read this book.”

—**Soren Kaplan, author of *Leapfrogging* and speaker, consultant, and entrepreneur**

“To bring three billion new middle-class consumers into the global economy will require a revolution in resource productivity in everything from farms to fisheries to factories. Zhexembayeva’s groundbreaking book provides a road map for turning resource scarcity—the ‘overfished ocean’—into a competitive advantage. She shows how forward-looking businesses are already doing this and explains how any business can do the same.”

—**Joel Makower, Executive Editor, GreenBiz Group, Inc., and author of *Strategies for the Green Economy***

“This is the best sustainability business book of the decade, no question, because it is truly a business book—it’s not about sustainability as an add-on but the future of a sensational business model innovation. If you want to lead in the circular economy, inspire new sources of value, and consistently create uncontested market space, place this book at the core of your breakthrough performance agenda. ‘This is what I’ve been looking for for a long time’—that’s exactly what I think you are going to say when you read this stunning and special book.”

—**David L. Cooperrider, Fairmount Minerals Professor and Faculty Chair, Fowler Center for Sustainable Value, Weatherhead School of Management, Case Western Reserve University**

“If you are looking for a recipe against sustainability fatigue, this book is definitely an eye-opener. Dr. Nadya Zhexembayeva makes a clear analysis of the need for a real radical, disruptive innovative approach to cope with resource scarcity. She does not aim to offer quick fixes, but she does recommend a strong thinking framework. Her business examples are intriguing and hopeful. She definitely offers the sustainability debate a new meaning and businesses the appetite to consider new business models. Refreshing!”

—**Wilfried Grommen, Chief Technologist, Hewlett-Packard**

“A resource-depleting world such as the one we currently live in entails a radical shift toward new governing principles, innovative ideas, and creative mindsets. It means taking a step back from the traditional linear economy, where everything is consumed and subsequently wasted, and finding the ‘disruptive innovation’ (as the author skillfully names it) that transforms the line into a circle. This book provides the set of rules that will guide you in taking this leap of faith, while telling the inspiring stories of the ones who have already done so. As CEO of an oil and gas company that has placed ‘resourcefulness’ as the stepping-stone of its strategy, I strongly recommend this book as an absolute must-read for any business professional ready to embark on this challenging but rewarding journey.”

—**Mariana Gheorghe, CEO, OMV Petrom, and one of *Fortune* magazine’s “Most Powerful Women: The International Power 50”**

“This book gives us five clear principles for business strategies that make sense, bring hope, and stand a good chance of success. This is a book in the new paradigm: beyond the weighty responsibilities of sustainability, here we have practical guidance and clear examples of opportunity enough for every entrepreneur and corporate reformer. This is the strategy text for now!”

—**Jonathan Gosling, Professor of Leadership Studies, University of Exeter Business School, and coauthor of *Nelson’s Way***

“What would happen if a smart researcher and businesswoman wrote a book on the broken state of our global economy and how to set it right? In the best case, the outcome would resemble the artful storytelling and crisp advice Nadya Zhexembayeva delivers us in *Overfished Ocean Strategy*. We need every person inside business and out to read Nadya’s book today. The good news: in doing so, readers will not only learn key principles for enabling a flourishing future but enjoy the process along the way. Kudos to Nadya for this fresh addition to the short list of truly hopeful and helpful guidebooks to the 21st century!”

—**KoAnn Vikoren Skrzyniarz, founder and CEO, Sustainable Brands**

“When the question is not *if* but *when*, our responses in past decades have been more like the ocean’s waves rather than tsunamis. Today, at the edge of the tipping point, businesses, shareholders, and governments need nothing less than the ‘Hitchhiker’s Guide to the New Reality.’ Some of the guidance we need is revealed here in this book. Nadya Zhexembayeva provides exquisite navigation through fundamental questions of meaning and of real needs, through the search beyond the boundaries of risk and of opportunities, and toward radical change. Enjoy the journey and hope to see you in the New Reality.”

—**Andreja Kodrin, founder and President, Challenge:Future**

**OVERFISHED  
OCEAN  
STRATEGY**



NADYA ZHEXEMBAYEVA

# OVERFISHED OCEAN STRATEGY

POWERING UP INNOVATION FOR  
A RESOURCE-DEPRIVED WORLD



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# Overfished Ocean Strategy

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*To the two most amazing Jernovois of my life:*

*Lila and Vladimir*

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# Warm Greetings!

Wherever these words find you today, I hope that there is a good cup of coffee or a heartwarming glass of wine at your side.

This is a selfish hope. We are here to explore a topic that is far from straightforward. And if you have not figured this out yet from any other readings on strategy, change, and sustainability, I am sure that by the end of this book I will have gotten you thoroughly confused. This is an essential part of my job.

I don't mean it lightly. If I ask myself what my job is as an investor, as a manager, and definitely as an academic, my number one job is asking the right questions. And the job of asking the right questions means getting yourself constantly confused. Like many other people, I get so attached to one answer, grow so sure about the rightness of my own choice, that the need to ask any more profound questions disappears. But the change that the world faces right now requires deep questions. Believe me, we will all need that glass of wine!

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**THE ONLY WAY SOME** of us exercise our minds is by jumping to conclusions.

CULLEN HIGHTOWER  
WRITER

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We live at a time of remarkable transformation. The linear throw-away economy of today—where we extract resources, process them, use them barely once, and trash them immediately as we would a

cheap plastic fork—is coming to an end. We are, simply put, running out of things to mine and places to trash. And the market is beginning to recognize it as well: after an entire century of falling costs of raw materials, the first 10 years of the new millennium have seen a whopping 147 percent increase in real commodity prices.<sup>1</sup> Do you happen to be one of millions of managers fighting the ever-rising prices of raw materials, transportation, operations, and more? Welcome to the future!

Kyle Wiens, CEO of iFixit, the largest online repair community, and founder of the software company Dozuki, describes this transformation with laserlike precision: “The economy is broken. It’s not because of partisan bickering or the debt ceiling. It’s not because there is too much government spending or too little, too many taxes or too few. The problem cuts much deeper than that; it’s systemic and it’s global. The economy is broken because the principles that make the marketplace thrive will eventually destroy it.”<sup>2</sup>

A new economy is being born, one that takes the line and turns it into a circle. At the end of the life of a product, all of the waste comes back into a production cycle as a valuable resource, infinitely. With that comes a new economic order, where we compete and win using a radically new set of rules. For decades, companies claimed their victory by finding the best spot—a unique position on the crowded competitive landscape.<sup>3</sup> Others strived to avoid the crowd by discovering a new market space—swimming into the “blue ocean” waters far away from shark-filled blood-red existing markets.<sup>4</sup>

But this old economic order is running its course. Whether red, blue, or rainbow, the oceans are getting empty, and those managers who deeply understand and master this shift are able to turn the new reality into disruptive innovation and remarkable competitive advantage. As they ride ahead of the wave, new products, new business models, new markets, and new profits follow. Overfished Ocean Strategy is for everyone who wants to survive and thrive in this new

economy: people who are looking for new solutions to their managerial challenges, entrepreneurs and business leaders eager to protect their companies and get ahead of the wave, journalists and academics searching for a new level of discussion, educators interested in connecting the dots across disciplines and generations, nonprofit leaders trying to understand and engage with the new business world, and perhaps most important, young people around the world who will become the generation responsible for making the new world work.

All this talk about resource depletion might be making you yawn, cringe, and recall the recent “green business” craze. No doubt many of us suffer from “sustainability fatigue.” So let me make one thing perfectly clear: Pursuing the Overfished Ocean Strategy is a far cry from the sustainability efforts that result in “green” products that are (let’s be frank!) ugly, poorly perform, and are grossly overpriced. The world deprived of resources demands a far more radical change than apologetic compromises or PR nods to the environmentalists. The new era belongs to an entirely new set of approaches and competencies. It is time to leave bolt-on and Band-Aid forms of sustainability in the past and look into a future filled with change of remarkable magnitude—and promise.

In this book you will learn the new rules of the trade—five essential principles that are becoming increasingly more important for individuals and companies alike: (1) from line to circle, (2) from vertical to horizontal, (3) from growth to growth, (4) from plan to model, and (5) from department to mind-set. Together, these approaches inspire fundamental change and power up radical innovation across countries and industries—and my task is to make them work for you too.

A few remarks about the flow of this book. The five principles mentioned above lie at the center of the Overfished Ocean Strategy and thus will serve as the core of this story. As I am, first and foremost, a business owner and a manager, stories and cases make up the bulk of the discussion to serve as practical illustrations of how to make the

principles work. At the end of the chapter for each of the five principles is a short list of tools and resources you might consider when building your own Overfished Ocean Strategy tool kit.

Yet to get to the principles themselves, we first must examine the big trends that are driving global economic transformation and setting the stage for the new rules of competition. Thus, we will first look at the oceans of disappearing resources, overflowing landfills, and new business ideas. Then, we will look at the death of “green” and ponder the sustainability of our marriages (that is no joke!). Real stories of real businesses will help us to navigate throughout. That is the plan.

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I started working on this book at exactly 3:18 p.m. on a cold February afternoon in the winter of 2012, standing in front of a group of executives, ready for my strategy talk. The sun had started its descent, and the faces of the business leaders in front of me seemed to be in perfect harmony with the expanse of snow outside the window: cold and motionless. My challenge was simple: to make the invisible visible. The good news was that the journey of discovery had much to offer to the strong minds there in front of me: bankers, car manufacturers, pharmaceutical stars, and traders. While most of the world (including the leaders in my room) remains in the dark, Microsoft is researching a way to turn data servers into residential furnaces—saving millions on cooling off data centers while providing a crucial utility to homes across the world. FLOW2 is making money by allowing businesses to sell their temporary overcapacity—underutilized machines, skills, and real estate—all with the click of a button. Puma is getting rid of shoe boxes in favor of the remarkable intelligence of the light and reusable Clever Little Bag, while BMW has stopped selling cars and is now selling mobility, electricity included. In Peru, the first billboard that converts air into drinkable water has gone up, while in the Netherlands, wasteful party confetti biodegrades and grows into wild-

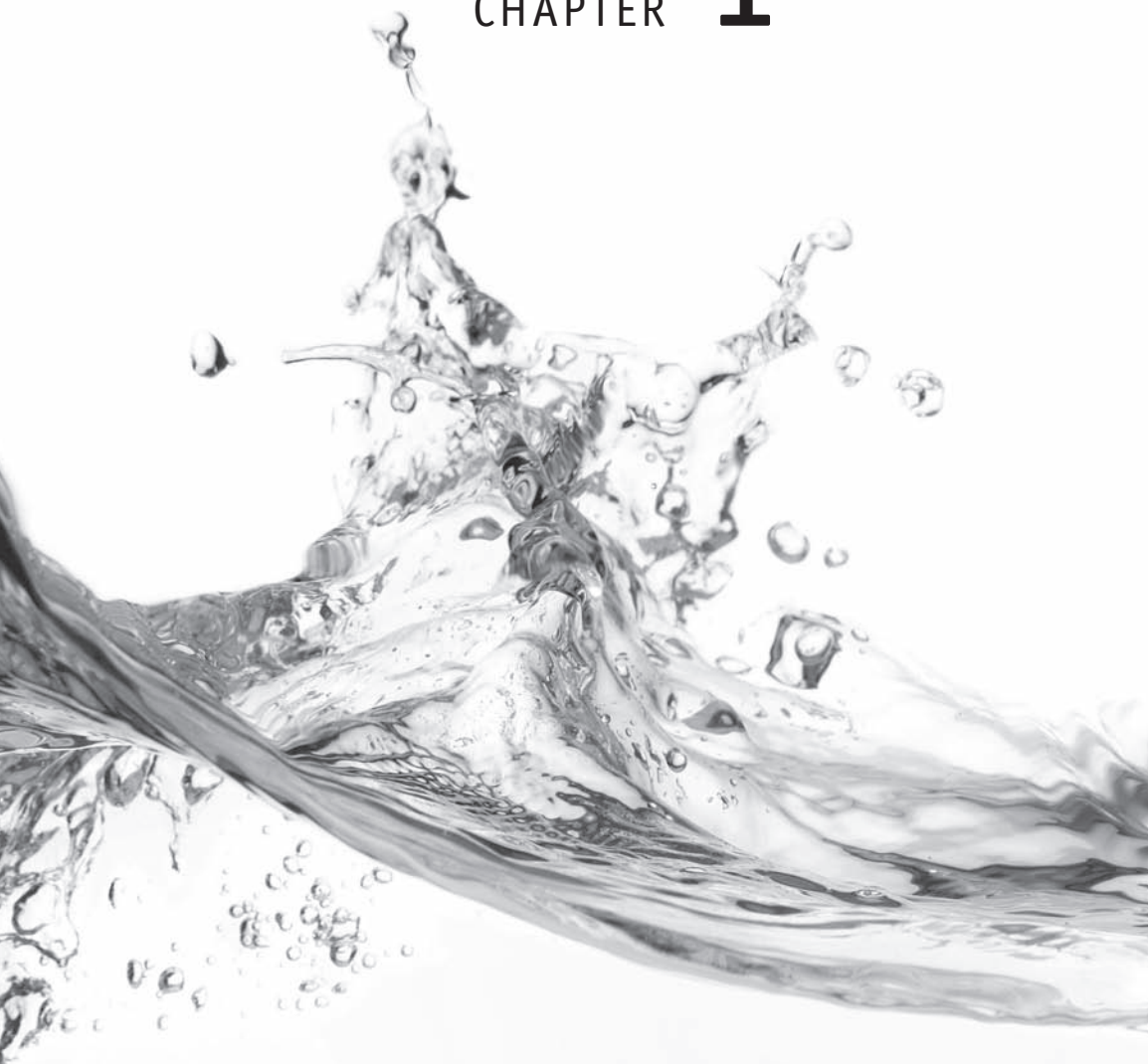


flowers. It was my job to tell these stories—and share the secrets of innovation that make each of them work. So off I went: “We live amid remarkable—though largely undetected—transformation . . .”

Whether these pages find you on a sunny summer day or a cold winter afternoon, my task is still the same. This book is here to make the new competitive reality visible—and to share the best examples of radical innovation for the resource-deprived world. I am deeply thankful to all the executives and businesses that have been my partners for over a decade, and to those who continue to open their doors to my questions and quests. The ocean of resources and ideas is getting overused, but as many of these pioneering businesses show, there is plenty for all of us. To discover the abundance of the future, we first need to recognize the scarcity of the present. To start our journey, we travel to the shores of New England in pursuit of one key question.

Where are the fish?

CHAPTER 1

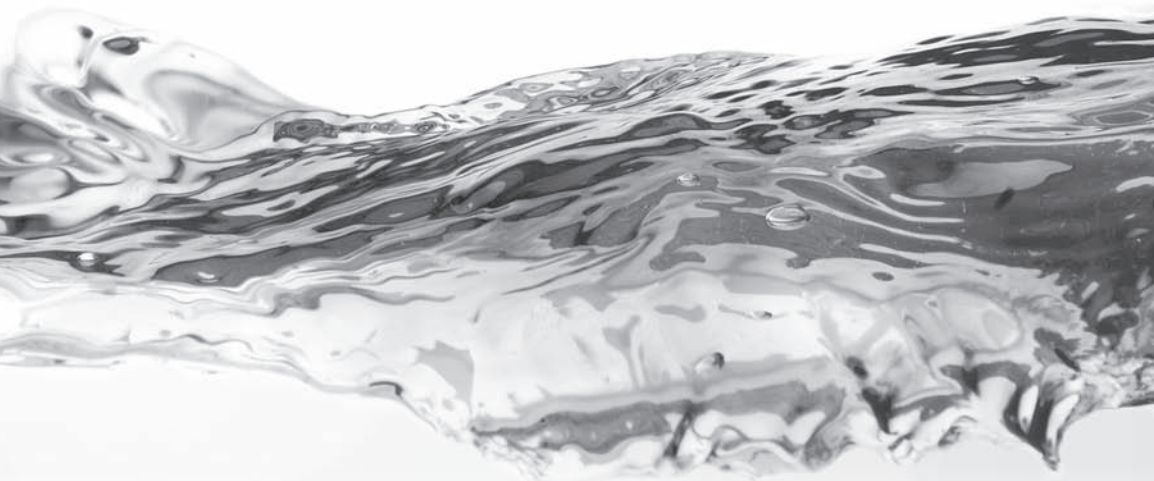


# Where Are the Fish? The New Competitive Reality

## *AT A GLANCE*

**FOR MOST OF THE** history of modern business, we have enjoyed falling prices on nearly all raw materials, which has made us dangerously oblivious to the shaky foundations of our global market economy. But the tides are turning: the new era is upon us. It is time to look into the facts—and to prepare a strategy for dealing with them.

---



Like his father and grandfather before him, Al Cattone has been living off the sea for all his life. For the Gloucester fisherman who spent over 30 years braving the Atlantic's waters, fishing is "not so much a job as it is an identity."<sup>1</sup> But this legacy is coming to abrupt end. In light of extreme declines of cod stocks, the New England Fishery Management Council voted to slash cod catch rates by 77 percent in the area from Cape Cod to Nova Scotia. The destruction of fishing communities across the region is expected to follow, with a domino effect on seafood processors, wholesalers, distributors, and retailers—an entire industrial ecosystem. But the unpopular move is backed by the harsh reality that the cod stocks today are very far from healthy, with some communities netting a bare 7 percent of moderate targets set by the National Oceanic and Atmospheric Administration.

In his struggle and sadness, Al is not alone. In the United Kingdom, the modern fishing fleet must work 17 times harder for the same catch as its sail-powered 1880s counterparts.<sup>2</sup> In northern Japan, the entire fishing industry has been in "terminal decline," with the 2011 tsunami only accelerating the collapse.<sup>3</sup> Recently, the *Financial Times* has become one of the most prominent voices about the fish crisis, warning the world of the decline in fish stocks, which is more severe than predicted. "More than half of fisheries worldwide face shrinking stocks, with most of these in worse condition than previously thought, leading to yearly economic losses of \$50bln."<sup>4</sup> And if the proven losses of the present are not enough, the projected losses of the future exceed anything that could be imagined. According to a Stanford University study, overfishing could take all wild seafood off our tables by 2048. "Unless we fundamentally change the way we manage all the oceans' species together, as a working ecosystem, then this century is the last century of wild seafood," warns marine biologist Stephen Palumbi.<sup>5</sup>

In its easy math and empty-plates impact, the story of fish serves as a perfect metaphor for the entire world of resources our economy is built on. Whether it is fish or oil, clean water or gold, vitamin C or helium, the ocean of resources is running dry, and this is creating

havoc in the market worldwide. Not one, not two, but three oceans are getting overextended: the ocean of resources, the ocean of waste, and the ocean of ideas. Here is how.

### *The Ocean of Resources*

The question of declining resources is not new. Long before current frameworks, such as the Natural Step,<sup>6</sup> put declining resources at the center of attention, the issue of resource scarcity commanded the notice of theorists and practitioners alike. From Plato<sup>7</sup> in the fourth century BC to Thomas Malthus<sup>8</sup> in 1798 to the Club of Rome in 1972, a parade of esteemed thinkers drew our attention to the looming collapse—to no avail. Hardly any changes in the behavior of businesses, governments, and consumers alike were inspired by their powerful outcry—if anything, the global market grew tired and deaf to the calls for radically new business models. Why?

While the theory of resource decline seemed strong and sound, for nearly two centuries the market reality had been telling the opposite story. McKinsey's 2011 report *Resource Revolution* puts it best:

Throughout the 20th century, resource prices declined in real terms or, in the case of energy, were flat overall despite periodic supply shocks and volatility. The real price of MGI's index of the most important commodities fell by almost half. This decline is startling and impressive when we consider that, during this 100-year period, the global population quadrupled and global GDP increased by roughly 20 times. The result was strong increases in demand for resources of 600 to 2,000 percent, depending on the resource.<sup>9</sup>

In essence, what the declining prices of resources told us for so long was that we could have our cake and eat it too—grow our population, increase our consumption, and keep cutting prices, all at the same time.

But that was then.

---

The now looks drastically different—and the speed of waking up to this new reality will determine who will survive and who will vanish in the new era. Each year, I work with about 5,000 senior managers directly, and our conversations so far suggest that the majority have not yet fully awakened to this new world of a rapidly collapsing resource base. So here are a few alarm sirens for you—the general trends that are beyond striking:<sup>10</sup>

- Since the turn of the 21st century, real commodity prices increased 147 percent.
- At a minimum, an additional \$1 trillion annual investment in the resource system is necessary to meet future resource demands.
- Three billion more middle-class consumers are expected to be in the global economy by 2030, all putting new pressures on resource demand.

The particularities are no less alarming. Whatever key aspect of business—or life—we consider, declining resources are unraveling the very foundation on which we built our economy.

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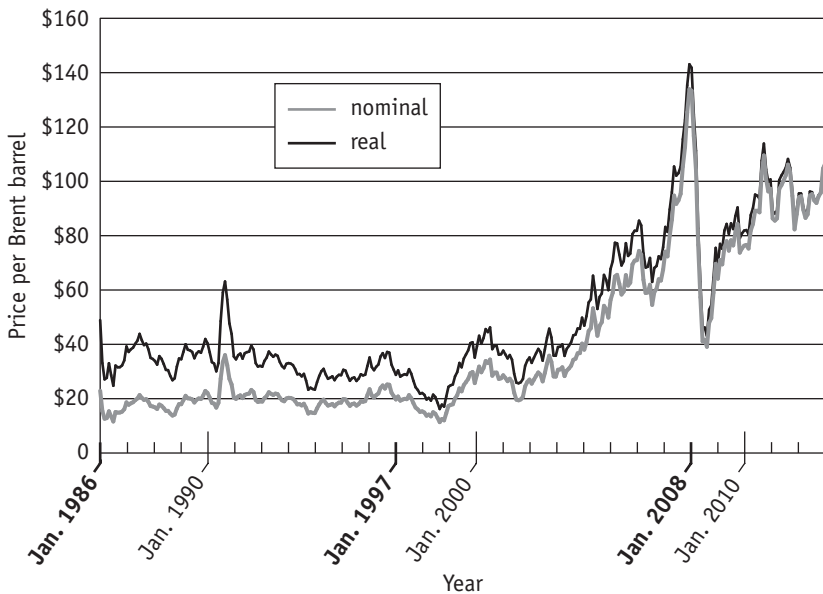
For decades, the energy debate has been struggling with the question of how much oil and other fossil fuel is left, with no agreement in sight. What we do have agreement on are the demand and the cost of energy. By 2030, world energy use is expected to exceed the 2011 baseline by 36 percent,<sup>11</sup> and the past decade has seen a 100 percent increase in the average cost to bring a new oil well on line. The demand and the supply pressures together create a perfect storm for any business—not because we are running out of oil or any other resource but because the price of energy is becoming severely unpredictable.

**THE STONE AGE** didn't end because we ran out of stones.

SHEIK AHMED ZAKI YAMANI  
 FORMER OIL MINISTER, SAUDI ARABIA

Figure 1 is a simple visualization of this volatility: using nominal data from the Energy Information Administration on spot prices of a Brent barrel of petroleum, converted to US dollars in August 2013 using the US Consumer Price Index for All Urban Consumers (CPI-U) to show a more realistic picture, I have plotted the price of oil from January 1986 to August 2013. It turned out to be a rather exciting roller-coaster ride!

Imagine that we run a company producing chairs—perhaps the very chair you are now sitting on. Much of the raw materials in the chair are petroleum derived or petroleum dependent. Now, imagine



**Figure 1. Volatility in Brent crude oil prices from January 1986 to August 2013.**

that we are trying to set a sound pricing policy for our beautiful chair—and naturally, we need a somewhat stable cost structure. How do you manage the up-and-down movement in the price of oil—and all dependent products—like what we have seen in the last five years?<sup>12</sup>

If oil prices seem remote to you, the next group of resources cannot possibly leave you uninterested. Do you know anybody who doesn't eat?

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**ASK NOT WHAT YOU** can do for your country. Ask what's for lunch.

ORSON WELLES  
ACTOR AND DIRECTOR

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Whenever one talks about food, it is assumed that availability is an issue. Yet when 40 percent of food in the United States is never eaten—amounting to \$165 billion a year in waste<sup>13</sup>—clearly, when it comes to the developed world, availability is not an issue. Instead, accessibility of food is becoming a strategic concern. Like a nice risotto or rice pudding? Of the top 10 rice-producing countries of the world, the first two—China and India—produce and control more than the other eight combined.<sup>14</sup> If your company or your supplier depends on rice production, such dependency creates real strategic concern, as exemplified by the story of the 2008 global rice crisis. The crisis took place in early 2008, when the international trading price of rice jumped dramatically, increasing more than 300 percent, from \$300 to \$1,200 per ton, in just four months.<sup>15</sup>

Perhaps rice is not your food of choice, and access to India's resources is far from your business challenges. Yet the global decline of food resources touches every person and every company, if we look at the level of the nutritional content of our most precious vegetable



crops. A 2004 study shows an average decline of 20 percent of vitamin C, 6 percent of protein, 16 percent of calcium, 9 percent of phosphorus, 15 percent of iron, and 38 percent of riboflavin from 1950 to 1999 in 43 vegetable crops.<sup>16</sup> We can already foresee a beautiful ripe tomato with absolutely no nutritional value.

A discussion of food leads straight to another essential resource, used in every sphere of business across the global value chain: water.

---

Water is the new oil, says the conventional wisdom of the 21st century. So how much water did you use today?

If you skipped the shower, you might have guessed three to five gallons (or about 10 to 20 liters). A nice bath, and you are probably hitting around 40 gallons (around 150 liters). So what would be the total water count for the day? Fifty gallons, anybody? Or perhaps 100? Think again!

If you had a cup of coffee, some toast, and an egg this morning, you have already consumed about 120 gallons (about 450 liters) of water—enough for three typical baths! And if these words catch you after a nice steak, you might be surprised that a half-pounder would “cost” you a whopping 1,017 gallons (or 3,850 liters)! These calculations are based on the Global Water Footprint Standard,<sup>17</sup> developed through the joint efforts of scientists to allow companies and consumers to deal with the growing water shortages. When it comes to disruption of corporate competitiveness and profitability, the shortages are no joke.

Already today, as the clean water supply is unable to keep up with demand, an estimated 1.1 billion people lack access to safe drinking water.<sup>18</sup> No wonder that Paul Bulcke, CEO of one of the largest food corporations in the world, Nestlé, is calling water scarcity the greatest threat to food security in the future. “By 2030, the demand for water is forecast to be 50 percent higher than today; withdrawals could exceed

natural renewal by over 60 percent, resulting in water scarcity for a third of the world's population. . . . It is anticipated that there will be up to 30 percent shortfalls in global cereal production by 2030 due to water scarcity," says Bulcke. "This is a loss equivalent to the entire grain crops of India and the United States combined. . . . Resource shortages lead to price increases and volatility."<sup>19</sup> What a world for us to navigate!

And global water scarcity is only the tip of another gloomy iceberg.

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**GREEN TECH MAY PROVIDE** a way past peak oil. There is no escape from peak water.

GUS LUBIN  
JOURNALIST

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The year 2012 was tough for the US insurance industry. "From Hurricane Sandy's devastating blow to the Northeast to the protracted drought that hit the Midwest Corn Belt, natural catastrophes across the United States pounded insurers last year, generating \$35 billion in privately insured property losses, \$11 billion more than the average over the last decade," the *New York Times* reported in May 2013.<sup>20</sup> Much of that bill was covered by the reinsurers—companies that take on insurance policies from primary insurance companies eager to spread out their risk. And if you were an insurance company affected by Sandy, you'd better pray that you had a reinsurer behind you. What about the reinsurers themselves? One of the biggest companies in this business is Swiss Re. J. Eric Smith, CEO of Swiss Re Americas, says of these concerns, "What keeps us up at night is climate change. We see the long-term effect of climate change on society, and it really frightens us."<sup>21</sup>

We might keep debating the science of climate change, going back and forth in politicized discussions of every kind. A stable climate, however, is a key resource for all countries and economies to manage in the years to come. And already today, for one crucial industry—which services much of the global market—the verdict is painfully clear: “For insurers, no doubts on climate change.”<sup>22</sup>

Just about now, it would be a good idea for me to stop this doom-and-gloom overview of the upcoming Armageddon. But my hope is that you can see past the challenges to the opportunities. When dealing with a heavy load of data, a wonderful friend and one of the best management professors in the world, J. B. Kassarjan, always offers his clients a magic phrase: “Facts are friendly.” Facts are friendly, indeed—and for all the companies pursuing the Overfished Ocean Strategy, they have become a source of competitive advantage. From one set of facts we go to another, traveling from the ocean of resources to the ocean that is getting intensely abused: waste.

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**WE BUY THINGS WE** don't need with money we don't have to impress people we don't like.

DAVE RAMSEY  
FINANCE SPECIALIST AND AUTHOR

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## *The Ocean of Waste*

As I type these words, the room is filled with light and the smell of peonies. The desk is barely visible under the messy piles of papers and books. An old bag of chips smiles at me from behind the desktop. Always on the move, I have not touched my desktop computer for more than three months. Yet about 1.8 tons of raw materials were used to produce this single machine, which on its own weighs

around 30 pounds (14 kg).<sup>23</sup> With this level of utilization, my computer will soon come to the end of its life cycle—we will simply clear up the space, getting rid of the unused device. More than 47.4 million computers were thrown out in 2012 in the United States alone, and no more than 25 percent of those devices were recycled.<sup>24</sup> If we apply that percentage to my 30-pound computer, with only 25 percent of its weight recycled, that means that barely 0.19 percent of all originally mined materials would go recycled.

Fully 99.81 percent would be wasted.

It would be wasted not because the materials mined and processed to build the computers have no value, but rather because we have not been designing products and processes with that value in mind. Our throwaway economy works on the assumption that it is easier to make a new product than to reuse resources already processed. But as we enter the 21st century, “throwaway” is going away. The UK warned that it would run out of landfill space by 2018.<sup>25</sup> Dubai already approached this limit in 2012, when one of its two key landfills reached capacity and was on the brink of overflow.<sup>26</sup> The garbage crises in Naples and Bangalore became so famous that they reached the pages of most major media outlets, the *New York Times* among them.

With global landfills overextended to the very top of their capacity, no wonder that waste overflows in every direction. Most of us have heard of giant waste fields floating in our oceans. While no scientist has provided a definitive calculation of the size of any of the fields (Massachusetts? the Netherlands? the moon?), CNN refers to one such field as an “enormous, amorphous, nasty soup that stretches for hundreds of miles.”<sup>27</sup> The title of the article is no less telling: “The Pacific toilet bowl that never flushes.” Ready for a swim?

Every time I hear these stories of waste, an impatient pragmatism in me demands: so what? For an environmentalist, the answer to this question might imply activism (and pessimism). But for an entrepreneur and manager, the implication is rather different. Archi-

tect and designer William McDonough and the rest of the Cradle to Cradle crowd made it into a simple formula: “Waste equals food.” In other words, hundreds of miles of plastic floating in the ocean is an environmental disaster indeed, but it is also a whole bunch of wasted petroleum that could, if approached with intelligence, be turned into a business opportunity. It all depends on the quality of your ideas.

### *The Ocean of Ideas*

A self-made billionaire who starts the Spanx lingerie company from a folding table . . . a 17-year-old who sells his app to Yahoo for \$30 million . . . organic baby food started at a UK kitchen sold to an American giant. . . . We have all heard those stories—and (well, I have to speak for myself here) dreamed of being part of them. Could it be that the ocean of business ideas is also running dry?

According to PWC, 2013 started with a 12 percent decline in dollars spent in venture capital investment in the United States and a 15 percent decline in the number of deals.<sup>28</sup> Such a decline is projected or already manifested in a number of US states (such as Ohio) and European countries (France comes to mind first) and runs across many industries. What is the issue?

Sandi Cesko, a Slovenian entrepreneur who grew his company from \$70 to \$700 million in sales amid global crisis to become an entrepreneurial poster child for a *Harvard Business Review* story,<sup>29</sup> put it this way: “We are going through a major transition. In the past, we sold *products*. Today, we are selling *services*. But the global overcapacity, coupled with resource crunch, means something new. We simply cannot possibly sell more and more stuff. Tomorrow, our capacity to sell will depend on our ability to stay relevant.” We will have to sell *meaning*.<sup>30</sup>

Sandi’s insights echo the work of business-trend watcher Daniel H. Pink. In his best-selling book *A Whole New Mind*, Dan speaks of

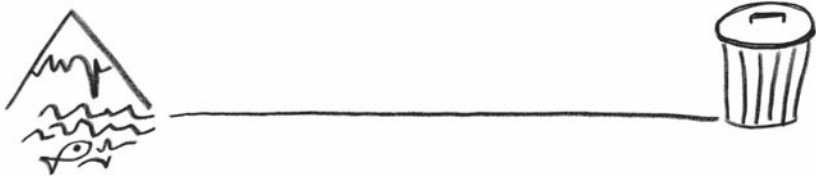
the same patterns—or ages—that the global economy has been going through:

Think of the last 150 years as a three-act drama. In Act I, the Industrial Age, massive factories and efficient assembly lines powered the economy. The lead character in this act was the mass production worker, whose cardinal traits were physical strength and personal fortitude. In Act II, the Information Age, the United States and other nations began to evolve. Mass production faded into the background, while information and knowledge fueled the economies of the developing world. The central figure in this act was the knowledge worker. . . . Now . . . the curtain is rising on Act III. Call this act the Conceptual Age. The main characters now are the creator and the empathizer.<sup>31</sup>

If our ability to compete in the future depends on the ability to create new meaning, how are we to foster *this kind* of innovation?

### *The Disappearing Line*

Swim through the overfished oceans, connect the dots, and you will get to a bigger picture. Think of the global economy in which we are living today as one long line. The line starts with all the companies that are mining, growing, or raising something—those are our only options when it comes to raw materials. The line finishes with all the companies managing a not-very-sexy but increasingly lucrative business: waste. All other businesses—large and small, products and services—are between these two poles. That is our entire global economy. One giant supply chain.



It is *linear*—there is only one straight line from the beginning to the end. It is *throwaway*—as, generally speaking, we use what we mine only once, throwing away most of the resources just the way you throw away a plastic fork after a onetime use. And it is *collapsing*—as we are running out of things to mine and places to trash.

We are in the midst of the transformation of a lifetime.

For most businesses, this transformation is invisible. For those bearing its crushing impacts, it is disastrous. Yet some see it as the greatest opportunity of the 21st century.

TerraCycle is one such business. Known as the company that produced the world's first product made from 100 percent postconsumer garbage, TerraCycle has “outsmarted waste” by engaging more than 20 million people in collecting waste in over 20 countries and diverting billions of units of waste. Now a company that turns waste into over 1,500 different products, TerraCycle was once a laughingstock of the entrepreneurship competition. The first product of the company, founded by a barely 20-year-old Princeton dropout, Tom Szaky, was far from glamorous but made up for it with a great name: Worm Poop. An all-natural fertilizer, Worm Poop is packaged in recycled plastic bottles, which the company collects in part through a US-wide recycling program. The *New York Times*' Rob Walker wrote:

You don't hear much about worms, or their waste, from the various big-box retailers, globe-trotting pundits and good-looking guests of Oprah Winfrey who appear to be leading the conversation about environmental concern these days. But TerraCycle's plant food is actually a mass-oriented variation on something that hard-core eco-people talk about all the time: the worm bin. Containers filled with shredded newspaper and worms, such bins are used for composting food scraps. Worms eat this waste and digest it, and “compost exits the worm through its tail end,” one online guide explains. These “castings” . . . happen to make good plant food.<sup>32</sup>

TerraCycle now sells at major retailers ranging from Walmart to Whole Foods Market. Look who is laughing now!

**THE STATUS QUO IS** a very powerful opiate, and when you have a system that seems to be working and producing profits by the conventional way of accounting for profits, it's very hard to make yourself change. But we all know that change is an inevitable part of business. Once you have ridden a wave just so far, you have to get another wave. We all know that. For us, becoming restorative has been that new wave, and we have been riding it for 13 years now. It's been incredibly good for business.

RAY ANDERSON  
FOUNDER, INTERFACE INC.

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There is no question that turning the challenges of the overfished ocean into a vibrant business opportunity is much easier for a start-up than it is for a corporation with a history. Don't get me wrong: I have nothing against the sweethearts of disruptive innovation for a resource-deprived economy, the Body Shops and the Whole Foods Markets of our world, built from the very start on a solid foundation of Overfished Ocean Strategy principles. Yet with all due respect, I often feel that they almost have it easy, and it is the traditional companies striving to transform into a more competitive version of themselves that are up against a real challenge. Of course, it is an immense task to build the world's best vacuum cleaner, but just imagine what it would take to transform that working vacuum cleaner into the world's best TV set? That is the scale and complexity of transformation required here.

Bayerische Motoren Werke AG—also known as BMW—is one such company navigating the murky waters of the resource crunch.



The company moved well beyond selling products to selling services—and from a car company transformed itself into a mobility company. Focusing on mobility—a service rather than a product—allows the company to power up radical innovation and open doors to a completely new business opportunity. Take, for example, the DriveNow car-sharing service, employing BMW i, MINI, and Sixt cars, which allows people in densely populated urban areas to enjoy the benefits of a personal car without owning one. The idea, as BMW explains, is simple: “The mobility concept is based on the motto ‘pick up anywhere, drop off anywhere.’ Billing is per-minute, fuel costs and parking charges in public car parks are included. Users can locate available cars using the app, website or just on the street. A chip in the driving license acts as an electronic key.”<sup>33</sup> Now, that is a service I am ready to explore!

ParkatmyHouse—a strategic investment by BMW i Ventures—is another example of BMW’s remarkable resource intelligence and ingenuity. A simple online marketplace, powered by an app, allows people who own private parking places to connect with people who are searching for one. Imagine the savings of time, fuel, CO<sub>2</sub> emissions, and more—and money made—on this simple solution. And for BMW itself, having a stronger parking infrastructure is essential for future sales: if we have good parking, we are ready to drive cars, right?

Mobility services are not the only radical innovation coming out of BMW. In an effort to protect and defend profits, the company decided to harness winds thrashing across eastern Germany to secure power as costs rise as a result of Germany’s EUR 550 billion (\$740 billion US) shift away from nuclear energy. BMW’s transitions seem deceptively simple. Yet when the market forces inspire you to shift your focus from designing cars to designing mobility, disruptive innovation follows; any designer and engineer will tell you that most innovation happens on the verge of the impossible.

Similarly deceptive is the move toward control of the entire energy value chain—but the numbers and the endorsement of business analysts, such as those quoted in *Bloomberg's* 2013 review, speak volumes.

At BMW's Leipzig plant, the four 2.5-megawatt [wind] turbines from Nordex SE will eventually generate about 26 gigawatt-hours of electricity a year, or about 23 percent of the plant's total consumption, said Jury Witschnig, head of sustainability strategy at the Munich-based manufacturer. The automaker seeks to eventually get all its power from renewables, compared with 28 percent in 2011—both to cut its carbon output and to benefit from falling prices for wind and solar energy. "There will definitely be more such projects" from renewable sources, Witschnig said. "Energy prices are part of the business case," and in Leipzig, wind power was cheaper than other options.<sup>34</sup>

But that is not all. BMW's rapid marriage with the energy business is a sign of remarkable foresight. As legislation continues to press for fewer and fewer emissions (Euro VI requirements being one such pressure), the movement away from combustion engines appears inevitable. Electric vehicles are one alternative—and judging by the fast pace of model launches in this domain, it seems to be a viable option. Yet when you manufacture combustion engines, the emissions are fully in your control, as your engineers are the ones designing an intelligent (or not so much) motor. When we move to electricity, however, that control disappears, as emissions are now dependent on the efficiencies of power plants. And that is exactly why BMW's tango with energy production is so ingenious: it puts control back in the hands of the company—way ahead of the competition.

Swiss Re is another giant riding ahead of the wave and turning disappearing resources into a thriving business model. The primary product of Swiss Re, a 150-year-old reinsurer with over \$33 billion in revenues as of 2012, is insurance for insurers, so the company can hardly be equated with coal-burning plants or methane-producing industries. A company rooted in Swiss rationality and conservatism, the reinsurer surprised the entire industry by taking on the increasing

lack of climate stability as a business risk—and opportunity—as early as 1994. By 2007, Swiss Re had introduced a number of financial tools for dealing with the risks associated with climate change. As Nelson D. Schwartz of *Fortune* magazine explained,

Buyers can bet on future heat waves or cold snaps with puts and calls on specific periods of time and temperatures, much as conventional options have a preset strike price for a stock. So a farmer in India might be able to buy insurance from a local insurer in case the usual monsoon rains fail to arrive, or, conversely, his fields are flooded.<sup>35</sup>

In the following years, the company upgraded its entire portfolio and pricing to respond to the rising costs of climate change. Speaking to Bloomberg TV in 2009, Swiss Re's senior climate advisor, Andreas Spiegel, took no prisoners, estimating weather-related losses at \$40 billion annually:

Weather-related insured losses are rising, and the intensity of weather-related events such as hurricanes is going up as well. We are integrating these risks in our pricing, trying to quantify certain aspects of climate change and integrating them into our models. Climate- and weather-related risks are a part of our core business. More and more, we see this as a business opportunity, as adaptation to climate change is about managing risks in the long term. And that is our business.<sup>36</sup>

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Whether red, blue, or rainbow colored, whether made of resources, waste, or ideas, our oceans are running dry. We can continue to ignore this trend, falling deeper into the coma of denial along with millions of other businesses. We can run and hide, pushing it to the bottom of the corporate agenda, waiting for a better time to make a move. Or we can turn the overfished ocean into the driving force for radical renewal. So what should business do?

CHAPTER 2

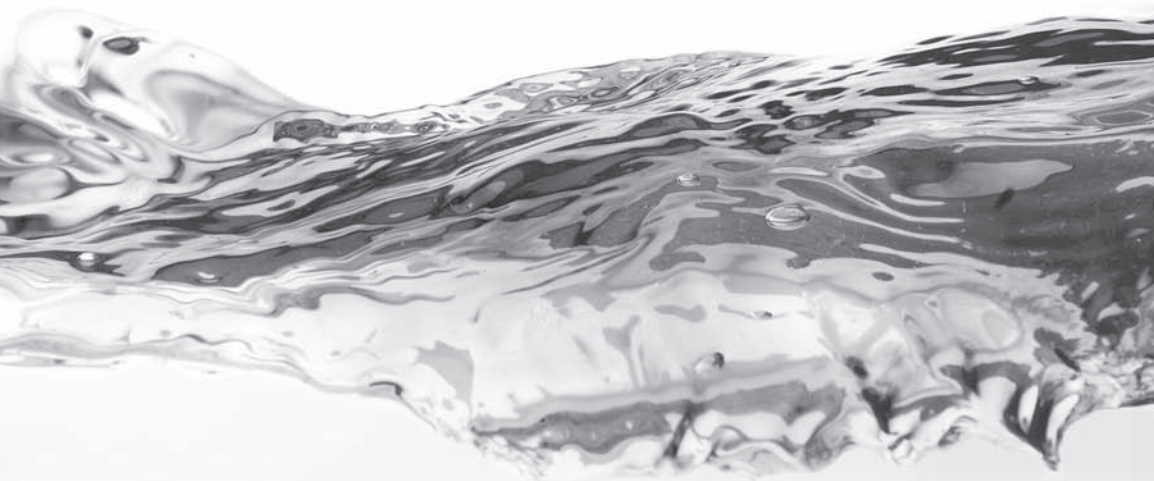


# Overfished Ocean Strategy: Five Principles That Make It Work

## *AT A GLANCE*

**IN THE ERA OF** the collapsing linear economy, the Overfished Ocean Strategy transforms today's depletion of resources into tomorrow's differentiated long-lasting profits. Five principles allow companies to power up innovation for a demanding world.

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It is green, dense, and surprisingly light. Fitting perfectly in the palm of my hand, it leaves a light, oily residue on my skin. It is fragrant (just a touch of soft, alluring smell) and textured (it looks like thousands of little worms squished together). It goes against everything we are taught by conventional strategy theory. And it is an amazingly powerful symbol of the new era dawning.

Intrigued? While you are trying to guess what exactly I am holding in my hand, let me set the context to spice up the big reveal.

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Popular strategic thought tells us that to compete well, we need to find the most advantageous position in the crowded market space and stick to it. Michael E. Porter is the guru at the helm of this thinking, and his famous menu of “generic” strategies suggests that in the tough search for ideal positioning, we are to make two primary choices.<sup>1</sup> The first choice is between price and differentiation. Do you compete on cost, striving for the most competitive (read cheap) production on the market, or do you have something unique to offer that differentiates you from other, cheaper competitors? The second choice is about focusing your efforts: do you want to target a specific segment (narrow focus) or the entire universe of consumers (broad, global market scope)? The two choices set into a two-by-two grid will present you with four possible options making up the entire landscape of the market to consider.

Play with brands of your favorite product—say, a smartphone—and you will immediately see which strategy is pursued. Today, Apple’s iPhone is conquering the market with a unique differentiation strategy—it can hardly be called the most cost-attractive smartphone on the market, but the company is pursuing a broad market scope. The Vertu cell phone, in contrast, is a differentiation-clad

product made attractive to a very narrow segment on the market—a luxury brand for a small slice of the consumer pie. The LG Optimus smartphone is a choice that pursues cost leadership—at a price one-tenth that of the iPhone—with a broad, global appeal. Huawei (ever heard of this one?)—the third-largest cell-phone producer on the market<sup>2</sup>—offers the even cheaper Y-300 model targeted at Asia’s “ant tribe community,” which refers to young people who go to the city for a better life but get stuck with low-paid jobs and high costs to live there.

Once you explore the marketplace and find your own unique position, the question becomes, how do you maintain it? What can you do to preserve your stake? The logical answer would be to keep doing what you are doing—and continue to get better at it. If you are selling a product that is uniquely different, keep pushing it forward and upward; add features; build new bells and whistles, and more of them. If you are going for cost leadership, keep driving down the cost with more efficiencies and better processes. And that is exactly where the problem lies.

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**IT’S NOT THAT WE** need new ideas, but we need to stop having old ideas.

EDWIN LAND  
FOUNDER, POLAROID

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“For those of you who haven’t made a lot of steel, historically there are two ways to make it. Most of the world’s steel has been made by massive integrated steel companies. The other way to do it is to build a mini mill. In a mini mill, you melt scrap in electric furnaces, and you

could easily fit four of them in this room.”<sup>3</sup> The author of an impressive collection of books and one of the most celebrated strategic thinkers of our time, Clayton Christensen is telling a story of disruptive innovation he has shared with thousands before.

“The most important thing about a mini mill is that you can make steel for 20 percent lower cost than you can make it in an integrated mill. Now, imagine you’re the CEO of a steel company somewhere. In a really good year, your net profit will be 2 to 4 percent. Here is a technology that would reduce the cost of making steel by 20 percent. Don’t you think you’d adopt it?” The answer to Christensen’s question is so obvious, it almost turns the inquiry into rhetoric. Yet why is it that no integrated steel companies anywhere in the world have built a mini mill—even though it would save them from bankruptcy, which caught up with all but one integrated mill by 2012? The answer, as Christensen suggests, is the core dilemma for any innovator in any industry, anywhere in the world.

In the steel industry, as in your own industry, many tiers make up the market. The lowest-cost products are at the bottom of the market: for steel, that would be concrete reinforcing bar, or *rebar*. Any company can make rebar, while steel for cars, appliances, and many other pricier products is much harder to produce. Rebar happened to be the only market that mini mills were capable of serving at the beginning. Then, mini mills used scrap to produce steel, and the quality was low. Reinforcement bars get buried in cement, have almost no specifications, and thus can be made of low-quality steel. And thus, mini mills set off to conquer the rebar market with all their might.

What about the integrated mills? Well, they were happy to give up the rebar market. As a commodity, reinforcement bar is a low-margin product, so dropping it would allow for shifting the focus on angle iron and thicker iron and rods and bring home a higher margin.



While the mini mills built-up their rebar capacity, the integrated mills shut down rebar lines—and enjoyed a higher gross-margin profitability. Everyone was happy. The mini mills were enjoying a piece of the pie, while the integrated mills got better performances. And then came 1979.

It was the year when mini mills celebrated their final victory, driving the last of the integrated mills out of the reinforcement bar market. But the happiness was short-lived: the price of rebar fell by a whopping 20 percent. It turned out that a low-cost strategy makes you competitive only when there is a high-priced competitor. With all the high-cost integrated mills out of the game, mini mills had to look for a new way to make money. Making better quality steel was the only way forward—and for the integrated mills, it was a new chance to get rid of another low-margin product. So the story repeated itself again and again.

This climb up the hill to the top of the market—continuous improvement of bells and whistles in products, services, and processes—is what most big companies do as they try to survive. They do exactly as demanded by the customer, trying for a better version of the product, hiking up the market tiers, until there is nowhere else to climb. And at just about that time, a newcomer comes along, offering a completely different—cheaper or more appealing—alternative, sending the big companies down the drain. Remember the story of Kodak, a company that misjudged the charm of digital photography and went bankrupt in 2012? Or how about the struggle of Nokia, once the top-of-the-world producer of cell phones, which failed to notice the growing appeal of smartphones? As with the slow collapse of the integrated steel industry, they, too, were not too big to fall. Christensen calls this all-too-familiar story of old-versus-new “disruptive innovation.”

And it is precisely this kind of innovation that I am holding in my hand in Figure 2. So what is it?

Take a close look. A soap bar? A spinach hamburger? A sponge? Some sort of energy tablet? An eco-macaroon? A new-age vitamin pill? A breakthrough detergent? Before you is the equivalent of not one, not two, but *three bottles of shampoo*—all squished into one solid bar. That is the way to disrupt!

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What do we sell when we sell shampoo? What end benefit do the customers get? What is the value? Clean hair, indeed. What ingredient need not be supplied to ensure this desired outcome, as it is always available? Water, indeed. So why do we pump water, process water, bottle water, package water, store water, transport water, sell water, and waste plastic post-water to wash our hair, when water is the only ingredient that is not necessary to provide?

That was exactly the starting point for Lush Fresh Handmade Cosmetics, a 20-year-old UK brand, when it started working on



**Figure 2. Pop quiz: is this a beauty product, a fertilizer, or something good to eat?**

its solid-shampoo line. According to the company, “The inventors worked with Stan Krysztal”—one of the leading cosmetic chemists of Great Britain—“to create these very clever little bars; an effective, hardworking shampoo base, quality ingredients, beautiful fragrances and, best of all, require no packaging. Handy for travelling, compact and easy to use, each bar is roughly the equivalent of three plastic bottles of shampoo. These humble bars are (probably) one of the greatest inventions we’ve ever come up with.”<sup>4</sup> The Lush team loves to talk about it. But what about the customers? Naturally, a number of customers would refuse such a strange-looking shampoo option. My baby brother is one of them. Whenever he visits us in Europe, I have to make a conscious effort to restock his bathroom. “I am a normal person,” he claims. “I like my soap solid and my shampoo liquid, and not the other way around!”

Yet by any measure other than my brother’s comfort zone, Lush’s solid invention has been a great success since its launch in 2007, capturing rave reviews and a solid (pun intended!) customer following. Here is one such review from a rather conventional consumer—a Boston.com writer’s take:

Trust me, I was skeptical too. A rock of shampoo, eh? Sounds about as effective as a steel wool pad as conditioner. But after trying it multiple times at an adult sleepover—don’t judge—I slowly became convinced. The stone of shampoo seems to last forever (if you keep it in a dry place after use), and it comes in a variety of scents. I recently picked up cinnamon and clove. But most importantly, it’s pretty damn effective. The shampoo itself lathers nicely (sorry to sound like a Prell commercial . . . wait, do they still make that?) and at about \$10 a rock, it’s a better deal than it appears.”<sup>5</sup>

But the glowing reviews and growing revenues are not the only business victories for Lush solid shampoo; on the other side of the business continuum, the company is also doing well with costs. As of 2013, Lush has avoided producing, bottling, and distributing six

million plastic bottles globally by selling shampoo bars—count in 2.6 ounces (or 75 grams) of plastic saved per shampoo bar, and multiply that by all the savings in energy and labor costs that would have been incurred designing, producing, bottling, and storing the bottles.<sup>6</sup> Annual water savings from producing the solid shampoos are nearly 120,000 gallons (or 450,000 liters) globally, while transportation savings are beyond surprising: when calculated per wash, transportation costs are *15 times less* than those of liquid shampoo. Additional resource intelligence comes in a form of raw-material savings: the bar has no preservatives, as there is no liquid content requiring preservation. And with a scale of 830 stores in 51 countries carrying the product (which nearly doubled from 2007's 438-strong chain), strengthened revenues and intelligent cost structure for the unusual product are a welcome performance outcome for the once-tiny underdog of the cosmetics industry.

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The story of Lush solid shampoo is a story of radical innovation. While the traditional majority of cosmetics companies are fighting for a share of the difficult consumer market with more appealing packaging and stronger advertising campaigns, and while the eco-conscious minority is struggling with recycled plastic and third-party “green” certification, Lush goes well below the surface and delivers an entirely new way of looking at a product. Once a barely known company that started with a sausage machine in the messy workshop of a nearly bankrupt husband-and-wife team, Lush has put into question the essential value delivered by traditional shampoos and paved the way for an entirely new way of thinking.<sup>7</sup> Lush's solid-shampoo bar exemplifies the company's production standards. About 70 percent of the products sold require no packaging, much of the product range has no synthetic raw materials, and over 70 percent of the range is totally unpreserved. For Lush, this approach to resources is simply business as usual. For most of us, it is anything but.

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