Unlocking Value in Broken Markets
A Framework for System Change Entrepreneurs

by VALERIA BUDINICH and ARCHIS MAHAJAN
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This paper lays out a new framework for understanding the different ways in which entrepreneurs unlock value in broken or dysfunctional markets. Based on the study of how successful business and social entrepreneurs are transforming markets for growth and impact in both emerging and developed economies, the framework identifies four types of “broken market” entrepreneurs, according to their responses to certain fundamental problems that cause market dysfunction. This framework is intended to help System Change Entrepreneurs identify the types of entrepreneurs they will need to become and guide them through the strategic choices they will face when transforming broken markets.

VALERIA BUDINICH is a Systems Entrepreneurship Advisor at the Legatum Center at MIT Sloan. As a leading system changer, she has contributed to solving complex problems and leveraging market systems for all. At Ashoka, she co-created over 50 hybrid business models, impacting the lives of millions of people. She is the co-author of “Scaling Up Business Solutions to Social Problems” (Palgrave, 2015).

ARCHIS MAHAJAN is a Mechatronic Engineer with an MBA from INSEAD. He has worked as a consultant in engineering for oil & gas operations and is currently working in supply chain management. He was born in India, raised in Nigeria, and is passionate about history, macroeconomics, and strategy.

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What types of entrepreneurs can unlock value trapped in markets facing systemic challenges?

On a hot and sunny day in 1998 in Nigeria, Archis Mahajan’s family driver, Abubakar, announced that he had to take leave to travel to his village to transfer some money to his family for an upcoming festival. That same week, Archis’ father traveled to a nearby town to hand cash to one of his suppliers. Making a trip just to transfer money might seem odd, but making financial transactions was challenging for everyone in the area due to the lack of banking services. Viable banking customers, irrespective of their income levels, were left underserved due to the high cost of establishing conventional banking services in their market. Similar market limitations can also exist across services such as medical care, reliable power supply, and clean water. These availability challenges are often present in developing and developed economies in various forms.

Lack of availability also exists on the demand side for emerging technology. Applications are not always obvious, and consumers are unwilling or slow to adopt new business methods. For example, highly capable drones are now readily available but have limited civilian applications. Similarly, the 5G network rollout in the United States and other developed nations has been slow due to high costs and limited-use-cases. And while low-cost, low-earth-orbit satellites and gene editing are no longer science fiction, the development of transformative use cases is still gradual. Use cases remain unclear despite the billions of viable customers in developing and developed worlds alike who would likely welcome alternative solutions to their availability problem.

This lack of availability on both the demand and supply sides due to dysfunctional or emerging market systems thus represents a “broken market.” A common barrier to unlocking such markets is that they are often conflated with low-income consumers who suffer from an affordability challenge. Rather than stemming from a consumer-level affordability issue, “broken markets” exist because of systemic or structural challenges at the market level that limit value creation. These structural challenges are the single biggest reason that incumbents largely choose to ignore “broken markets,” thereby forgoing vast amounts of trapped value. Importantly, the social and environmental issues resulting from absence of services represent the most daunting global challenges for societies and governments worldwide.

Incumbent businesses can choose to ignore “broken markets” because they have already carved out a market for themselves and are focused on holding back competition. This is why “broken markets” need a new generation of business leaders who rather than worrying about competition, recognize the distinct lack of it and focus instead on why value creation has failed. The examples in this research illustrate how entrepreneurs forge unlikely partnerships and address the systemic barriers that result in availability challenges so that the market can finally be unlocked.
This paper describes a new framework based on the study of such business and social entrepreneurs. We hope this will trigger a new understanding of the strategic challenge entrepreneurs face—the type of solution they and their allies need to deploy. The examples also demonstrate the types of “broken market” entrepreneurs, defined by their answers to the fundamental problem causing the market dysfunction. This study aims to present these “broken markets” as an opportunity for change rather than a barrier.

The following section explores the strategic challenges and opportunities that shape an entrepreneur's path. This establishes a framework to guide entrepreneurs’ choices to transform broken markets.

**BOX 1**

Snapshots of the Consequences of Broken Markets and Not Addressing Systemic Market Barriers

- **28.9 million nonelderly individuals lack access to health insurance** in the US in 2019 and the number continues to increase.¹
- **1.7 billion people in the developing world are unbanked**—without an account at a financial institution or through a mobile money provider—and rely on cash for their survival though two-thirds of them have a mobile phone.²
- **About 2 billion people lack access to safe water,** including millions in cities and rural areas in the United States.³
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Understanding the end customer must be a keystone of any sound business strategy. Therefore, we must understand why customers lack access to products and services. One possible explanation is that the business and its competitors are not effectively operational in the target region and have failed to make the product readily available. Alternatively, there may be a lack of access despite the operationality of the business and its competitors.

FIGURE 1: Begin by asking why consumer cannot access the products.

4 Reasons Why Customers Lack Access to Products and Services

- **Why the lack of access?**
  - Business not operational?
  - Business is operational but...

1. **Unviable market due to cost structure?**
2. **Market specific barriers to business?**
3. **Basic product delivered, but need “better value”?**
4. **Unaffordable for some?**

As shown in Figure 1, these questions form the basis of the four unique strategic contexts that businesses operate in, each of which has a unique strategic challenge:

1. **UNVIABLE MARKET**: Abubakar and Archis’ father lacked access to banking services because the market had an insufficient concentration of viable customers. Incumbents faced no barriers to operating but could not justify the investment needed to establish operations. A broader customer base was necessary to support the cost structures of conventional operations. Note: this is a **market-level affordability** problem, not customer-level.

2. **MARKET-SPECIFIC BARRIERS**: As described in more detail later, rural Tanzania lacked access to good quality fertilizers despite a sufficient concentration of viable customers. Fertilizer companies were unable to address a viable market due to market-specific barriers to operating. The lack of roads to reach customers and long delays at ports were just some of these barriers.

3. **THE SEARCH FOR “BETTER VALUE”**: A customer might be happy to pay a lower price for a pair of sneakers until they learn that a child might have made it at the cost of their childhood in a sweatshop. While the product’s function is available, it does not necessarily represent the overall...
value that a customer might want. This “better value” that customers might seek could be social, environmental, or personal. Conventional businesses only focused on lowering the price of a product compared to their competitors are not well poised to make “better value” available.

4. IT IS TOO EXPENSIVE (NOT A “BROKEN MARKET”): A bar of soap is made as cheaply as possible by incumbent businesses and is readily available. Still, a poor laborer in a developing country might not be able to afford it. Likewise, access to internet connections for low-income people in developed economies and frontier markets may still be unaffordable for most low-income people. Conventional businesses have limited options to solve non-consumption due to affordability and focus mainly on extracting maximum value possible from available market segments.

Note that while lack of access in the first three scenarios is due to a lack of availability at the market level, the fourth scenario refers to lack of access due to affordability for lower-income market segments. While affordability is a challenge that most businesses are ill-equipped to solve, lack of availability is a business failure since viable customers remain untapped despite competitive pressures to reach them.

Given that these four barriers to access are unique strategic challenges, businesses need to ask themselves what it will take to overcome these roadblocks fundamentally. Each potential scenario gives rise to a different type of entrepreneurship that addresses the specific nature of each situation.
THE FOUR TYPES OF ENTREPRENEURS

THE “TRANSFORMER”
If a market is unviable because the cost of establishing the value chain is too high, then entrepreneurs must be willing to find a way to transform the cost structure to make the product available.

THE “FIXER”
If a conventional business can work, but externalities prevent them from operating, then a ‘fixer’ entrepreneur must focus on repairing and improving the ecosystem to enable the company to perform.

THE “EXPLORER”
If the value that customers seek is much greater than the product itself, then a successful entrepreneur would need to explore ways of creating that value.

THE “DARWINIAN”
The product is readily available at reasonable price points, and the business is locked in a Darwinian struggle of survival of the fittest (or most suitable). An entrepreneur in this ocean of competitors must focus on extracting maximum value from the value chain at the expense of competitors, substitutes, suppliers, distributors, and even customers.

While the first three types of entrepreneurs affect systemic changes in their target markets, the Darwinian is operating and extracting value within a specific value chain. The following examples illustrate how systemic solutions can range from improving infrastructure, reframing incentives, triggering new mindsets, and more. These entrepreneurs are, in effect, ecosystem warriors who focus instead on transforming the very nature of how value is being created in their target market (See Box 2). The framework below considers the four entrepreneur types and related market dynamics.

FIGURE 3: Framework to identify the type of entrepreneurship needed for a given set of market dynamics.
Examples in the following section illustrate the work of these “System Change Entrepreneurs,” detailing the nature of the interventions, their impact, and limitations. But first, let's look at some important definitions in Boxes 2 and 3 below.

**BOX 2**

**Defining Value Creation**

For Verdin and Tackx, value creation is defined as “the perceived benefit to the customer” and value extraction refers to the provider having “sufficient revenue and profits for its shareholders.” By applying a dynamic framework to more than 119 companies across 18 industries, they were able to distinguish between the impact of creating, and that of capturing, concluding that “it is your capacity to continuously innovate and add value to the customer that will determine strategic success.”

In his book, *The Theory and Practice of Value Creation*, Leon Miller widens the economics-centric definition of value to offer an integrative approach to value creation, one where “cooperative relations can be organized at multi-levels to ensure that the global value creation network – in addition to increasing material prosperity – operates in a way that increases human well-being, that promotes sustainability, and promotes the fair use and distribution of natural resources.”

**BOX 3**

**Defining Entrepreneurship and System Change Entrepreneurs**

At the heart of Schumpeter's concept of “creative destruction” is entrepreneurship as a means to achieve a new market equilibrium. As entrepreneurs and their teams engage in continuous innovation and contribute to economic growth, old industries are replaced by new ones creating superior value across markets and industries (Schumpeter, 2015).

In today's world, startups are key actors in this process. These entrepreneurs don't get to choose the type of entrepreneur they want to be: the right entrepreneurial strategy is defined by choosing a market and the problem they are intending to solve. As explained by Gans, Scott, and Stern, “the strategic opportunities for new ventures can be categorized along two dimensions: attitude toward incumbents (collaborate or compete?) and attitude toward the innovation (build a moat or storm a hill?).” Based on an analysis of hundreds of startups over 20 years, the authors developed “The Entrepreneurial Strategy Compass,” a coherent framework to guide entrepreneurs through decisions regarding customers, technologies, identity, and competitive space. These tough strategic choices have long-lasting implications and are key to a successful start-up commercialization strategy.

In this paper, we include cases of business and social entrepreneurs whose innovations led to a change in the dynamics of a market system, and as a result, triggered the conditions to make product and services available to millions of consumers. For this reason, we refer to them interchangeably as “System Change Entrepreneurs” or “Systems Entrepreneurs” to underscore that the cases discussed in this paper are creating value by transforming the architecture of market systems.
**THE “TRANSFORMER” OF VALUE-CREATING COST STRUCTURES**

How do businesses reach viable customers in a market that most believe to be unviable?

The market in which they are operating is deemed unviable because it is unlikely to generate sufficient returns to justify the upfront investments required to establish operations. This challenge needs an entrepreneur willing to create the same end value in such a dramatically different way than the old cost structures tumble. *This is the opportunistic energy of a Transformer.*

As shown in Figure 3, this is a strategic compulsion for the entrepreneur since the business cannot operate optimally without achieving this outcome. When old structures tumble, a new, more vibrant market emerges.³ The examples of Tabit and Zipline illustrate how the unconventional use of technology or forming partnerships in unconventional ways can form the basis of disrupting the value-creating process.

**TABIT AND SMALLHOLDER FARMERS IN TURKEY²⁰**

In Turkey, 3 million farmers are smallholders, and due to their low agricultural yields, the sector contributes only 8% of the GDP even though it accounts for 20% of employment. This high labor absorption for a smaller share of the GDP implies lower income levels and a lower standard of living.

Smallholder farmer productivity may sometimes be low because farmers have insufficient access to industrial practices. They also lack specific soil nutrients, likely rain patterns, crop diseases, and pests that might affect the region and crop insurance they could purchase. Perhaps most harmfully, smallholders lack access to an efficient marketplace to advertise and sell their goods. The problem is that the cost of training smallholder farmers in modern techniques and establishing an efficient marketplace where they can get a fair price for their produce is prohibitive.

In 2004, Tülin Akin, a social entrepreneur with a marketing background, founded Tabit, an initiative dedicated to solving the immediate lack of access to an efficient marketplace in Turkey.

**An e-commerce platform, the seeds of a solution**

Initially, Tülin launched “Tarimsal Pazarlama,” an advertisement service and web-based marketplace connecting smallholder farmers to potential buyers, becoming Turkey’s first agricultural platform. Farmers could simply message pictures of their produce over mobile phones, and Tabit would share them online with willing buyers.

Connecting these potential buyers directly with the sellers, the system ensured deals were struck quickly, and farmers received fairer compensation for their produce. This marketing service through the e-commerce platform was combined with Tabit’s capacity building and training services, including internet use, accessing government services, and technical advice and inputs—to hundreds of local cooperatives. All these services and “Tarimsal Pazarlama” continue until today. ¹¹

While the original e-commerce platform was highly successful and reached tens of thousands of farmers, this scale represented a small fraction of the smallholder market in Turkey. Furthermore, the Tabit team had to spend countless days training farmers on using the platform and convincing them of the power of web-based advertising. This made Tabit less viable and harder to scale, given the high cost per farmer in training and new customer acquisition.
Luckily, Tülin and her team had traveled to over 12,000 villages since 2004 and had identified widespread mobile phone usage as an untapped opportunity. Tabit had also gained the trust of many small farmer organizations and other key actors in this space, which opened the door for more ambitious goals and a new and more rapidly scalable solution.

The Vodafone’s Farmer Club—An unconventional partnership to transform cost
Tülin recognized that most of her target audience was already using mobile phones, and shifting to a mobile service would make it easier to reach them and scale more effectively. In 2009, Tülin took the concept of a mobile phone-based platform to two of the leading telecommunications companies in Turkey, but both declined. While many may not associate Vodafone with agriculture, the breakthrough for Tülin came when Vodafone, a relatively new entrant in Turkey, agreed to a two-year prototype partnership. Serpil Tamuray, the new CEO of Vodafone in Turkey, had prior experience in the agricultural sector and saw the potential of Tülin’s vision to transform small farming markets through the introduction of a mobile app.

Tabit launched a subscription-based service branded as Vodafone Farmer’s Club on Vodafone’s mobile platform in this partnership. Farmers were able to send messages with photos of their produce directly to potential buyers and access agriculture-related content generated by Tabit. The access to marketplace and market information was, thus, made conveniently, but the cost of the entry was also dramatically lowered. Vodafone also paid for an advertisement in a local newspaper that gave farmers additional opportunities to market their products. This also meant that farmers had an incentive to shift service providers in favor of Vodafone.

Today, there are 1.6 million users on the app, and 300,000 of them are subscribed to premium services like a daily weather service and weekly market price information of selected crops. The previous message-based service has been replaced with the ability to upload the information about the farmers’ production for sale directly on the app and then transfer it to multiple other agricultural platforms with whom Tabit has marketing partnerships. In addition, Tabit manages the e-commerce marketplace, continues its capacity-building programs through in-person trainings, and operates the Vodafone Farmer’s educational truck, which reaches every corner of Turkey. This unconventional partnership proved highly successful in improving millions of farmers’ lives, incomes, and working conditions. It not only incentivizes the agricultural sector to switch to Vodafone while engendering brand loyalty among users. The final evidence of the success came when Vodafone replicated this new platform concept in five other markets—Tanzania, Ghana, Kenya, New Zealand, and Egypt.

BOX 4

Vodafone’s Role in Banking Sector Disruption with M-Pesa

In 2007, Vodafone was similarly instrumental in another cost structure disruption when they launched M-Pesa in Kenya in partnership with Safaricom to make payments possible over their network. This was an unconventional offering for a telecommunications company at the time, but they made it possible for money to be transferred instantly to remote areas using just text messages. This functionality significantly alleviated some of the banking gaps for consumers like Archis’ father, Abubakar, and millions of others who operate in underdeveloped markets. Vodafone & Safaricom benefitted by creating a vast and loyal customer base across Kenya, with 20 million people benefitting from the service out of a total population of 49.7 million. The concept of mobile banking was so successful that it is even now reshaping the banking sector globally in developing and developed markets alike.
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The process is straightforward. When a hospital needs blood, it requests it digitally on a cellular network, and the Zipline crew loads the blood in a drone’s belly. From the point of departure, the drone is fully autonomous and delivers the blood by airdropping it at a collection area using a simple paper parachute. Digital platform means that the hospital can track location in real-time and are notified of imminent delivery and asked to head to the collection area. Zipline Rwanda operates as an on-demand commercial logistics system that facilitates hundreds of drone deliveries a day in less than 45 minutes per flight.

The system has successfully met the needs of all its partner hospitals, and it is expanding rapidly across Rwanda and to neighboring countries like Ghana and Tanzania. It has also successfully ensured that no blood is wasted—a first in the health care sector. The problem of balancing access with waste has been disrupted altogether, thus disrupting the cost structures of conventional logistics networks by 40%.

Zipline has delivered unrivaled success in the sector by using an emerging technology unconventional in healthcare. Moreover, they have become potential transformers of several value chains since the solution also lends itself to a cascade of other innovations and disruptions. Combining technology and processes can also be leveraged to disrupt logistics in different sectors, including retail, mail delivery, and food delivery. Autonomous drones can be deployed in policing, border patrols, infrastructure project monitoring, gaming, etc. And gaining credibility and expertise in operating such a system will finally make it easier to gain acceptance and credibility in developed markets. In effect, Zipline has created the potential for transforming entire ecosystems.

Zipline is thus a case of an entrepreneur using emerging cutting-edge technology in “broken markets” and potentially rewriting the rules of a business for everyone in the process.

BOX 5

The Solution from a Developing Nation Migrating to a Developed Nation

In 2021, Walmart announced a partnership with Zipline to launch an on-demand delivery service of select health, wellness, and consumable items from the Walmart Neighborhood Market. This should help dramatically lower the cost of last-mile delivery in the rural United States, a prospect with vast scaling potential incoming.
THE “FIXER” OF ECOSYSTEMS

Just as a train cannot run without tracks, businesses cannot operate if their ecosystem is broken. This is the world of the Fixer, where filling gaps in the ecosystem is the only way to make business happen. The Fixer will form unlikely alliances, reframing value for partners and competitors alike, or making an extra effort to overcome chronic barriers. All this is just to be able to do business and make the product available in an untapped market.

However, their reward is to see their business reach its full potential in an underperforming market. As we will see shortly through examples, Yara became a fixer in Tanzania by forming alliances with competitors, government, and civil society to collectively operationalize the value chain. AllLife, on the other hand, demonstrates the power of the fixer for breaking silos created by a focus on the value chain alone.

YARA’S CHALLENGE

Yara, headquartered in Oslo with 17,000 employees and USD14.3 billion in 2013, is a global leader in fertilizer sales. Yet the company struggled to reach farmers in Tanzania due to corruption at the port of entry that stalled clearance of goods for months, lack of road connectivity that restricted access to smallholder farmer market segment, and lack of access to credit for these farmers to pay for the fertilizers. They faced market-specific challenges that were too big for individual businesses to deal with alone, even for larger companies like Yara.

Furthermore, this case is a clear illustration of the first-mover disadvantage. For instance, even if Yara could invest in building the roads, they would also enable their competition, who would also benefit from that road. Examples abound of such “broken markets,” a business equivalent of a strategic stalemate. These games have no winners, only losers since vast value remain trapped for longer than it needs to. So how can innovators break this stalemate?

Yara started differentiating itself from the competition by offering products and value-added services to farmers that improve agricultural productivity and sustainability. To realize the full potential of this strategy, Yara needed to address the poor port and road infrastructure in many African countries and smallholder farmers’ limited access to financing and markets. Tanzania, the country where the company was performing lowest in the region, offered the most potential for significant growth and impact at the farmer level.

By 2010, Yara had already made significant commitments to African development. It had responded to Kofi Annan’s call in 2005 for a green revolution with a series of initiatives to eradicate hunger and support the development of agriculture. It partnered in Tanzania with the Agricultural Council to support local agribusiness and farmers’ organizations at the local level. Globally, it played a vital role at the 2009 World Economic Forum in developing the “New Vision for Agriculture.” Later, it co-chaired the Grow Africa initiative, a public-private platform to accelerate the transformation of African agriculture.
The FIXER cooperates rather than competes to overcome first-mover disadvantage

When an entrepreneur faces overwhelming challenges and being the first mover is a disadvantage, it is time for ‘collective effort.’ These businesses must begin by recognizing that they are not alone and that their competitors are likely facing the same challenge. Therefore, these companies should cooperate towards common interests to make the pie bigger rather than competing for a smaller pie.

In close collaboration with Tanzanian partners, Yara managed to “fix” the ecosystem in Tanzania for fertilizer delivery by mobilizing ‘collective effort.’ They brought together their competitors, government agencies, and social sector activist to create a platform to achieve this. They identified the systemic problems, quantified necessary investments, and clearly stated the roles and opportunities for all involved stakeholders. Targeted investments made possible by pooling resources helped fix infrastructure woes. Government intervention through social sector participation and campaigning helped reduce delays at customs, and the social sector helped regulate the unlikely alliance to ensure that the bigger pie now available was shared fairly and as per agreement. Once this playing field had been evened, the businesses could concentrate on establishing the value chain.

By 2014, the fertilizer market was finally unlocked, benefitting the businesses and tens of thousands of smallholder farmers in Tanzania. As a result of these efforts, the Tanzanian fertilizer market increased by 50% in just three years, and Yara’s market share by 52%. These ecosystem changes increased net profits by 90% for participating farmers. While the potential of ecosystem changes—particularly in terms of agricultural financing—was not fully realized due to changes in government, this system change effort translated into significant growth and economic impact for Tanzanian farmers and agribusiness. A key achievement in a country where 70% of the population is employed in agriculture.

LIMITATIONS OF COLLABORATING WITH COMPETITORS

While Tabit and Vodafone’s partnership is in mutual interest and is thus more binding, Yara’s cooperation with its competitors will unravel once the market becomes fully functional. However, the cooperation will unlock a much larger market for participants to fight over eventually.

LIFE INSURANCE IN SOUTH AFRICA FOR INDIVIDUALS LIVING WITH HIV AND DIABETES: A MISSED OPPORTUNITY FOR “COLLECTIVE EFFORT”

Until 2004, individuals in South Africa living with HIV could not buy life insurance. An inability to purchase life insurance makes it more difficult for these individuals to ensure financial security for their loved ones. It also makes it impossible for them to approach banks for anything from a car loan, home loan, or business loan since banks consider them to be in a high-risk category. In effect, lack of life insurance equates to a lack of financial inclusion.

While this is a grim outlook for individuals, consider this financial exclusion’s impact on a country like South Africa, where about 17% of the population (7.2 million) lives with the virus and roughly 8% globally lives with diabetes. And consider the vast numbers of viable customers that the insurance industry and the banking sector willingly overlook because they do not fit their business model.
Three engineers and a doctor, the four founders of AllLife, recognized this systemic challenge in financial inclusion and aimed to tackle the problem with an open mindset. They took on the mantle of serving this vast client base by becoming HIV specialists and understanding that if proper care is taken and necessary health services are provided, patients living with chronic illnesses can live long, reasonably healthy, and equally productive lives. AllLife team set up a system where they became partners of their clients in their journey of ensuring wellbeing. Clients must take regular medical tests, and AllLife keeps regular contact to ensure they take the necessary medications. The risk of having an HIV or diabetes patient as a client could now be quantified and minimized, allowing AllLife to offer life insurance at reasonable premiums.

This additional effort from an insurance company and their willingness to look beyond the silos of conventional business thus helped them unlock a vast market for themselves and the banking industry. More importantly for the clients and AllLife founders, the financial security of these market segments vastly improved. People with chronic illness could now plan and improve financial wellbeing for themselves and their families.

In recent years, AllLife deepened its market penetration to people living with diabetes, a significantly larger market. The company estimates that following advice on diabetes can reduce the costs of clients’ policies by up to 40% across its lifetime. Today, AllLife serves 100,000 clients in South Africa and continues to grow. Two of the founders, Ross Beerman & Michael Dalby, launched a new startup focused on people living with diabetes in Europe.

A Darwinian entrepreneur may compete in established markets in some places but still have to act as a fixer in other markets. Businesses are dynamic, and so is the range of strategic options entrepreneurs and business leaders need to deploy in different conditions.

BOX 7

Partnerships to Avoid Tunnel Vision

17% of South Africa’s population with HIV were not only great clients for AllLife, but could have been equally good clients for the banking sector. This oversight generally happens when businesses find themselves siloed in their own value-creating process. The focus and energy required to run big operations efficiently and the race to keep ahead of competition often ensures that such opportunities are deprioritized. The banking sector no doubt viewed the systemic challenge of insurance as an externality and most likely did not even consider tackling it. Is there not an incentive for the banking sector to help companies like AllLife prosper? How many more opportunities to play the fixer lay unrecognized in industries with similar systemic issues rising from interconnected and interdependent value chains?
THE “EXPLORER” OF BETTER VALUE

In 1994, customers might have been content to buy a book from a store, but Amazon changed that for many after they made online delivery prolific. If we refer to Figure 2, the strategic challenge Amazon tackled in its initial years was that businesses existed to deliver books, but did the existing companies capture all the value the customers desired? This was not just a move of the physical store to an online platform, but an entire restructuring of the supply chain in the back end to make it possible for increased convenience to become a core value of the product on offer.22

Similarly, a customer might be happy to pay a lower price for a pair of sneakers until they hear about the sweatshop child laborer who made products at the cost of their education and childhood. An ethically concerned consumer finds that the conventional value chain caters to personal needs but is “broken” regarding the customer’s sense of duty to society. Businesses must be able to adapt if growing consumer awareness threatens their very “social license to operate.”

Entrepreneurs and innovators seeking to make “doing good” an integral part of the value for customers thus must explore value-creating processes beyond conventional systems, just as Amazon did to deliver convenience. Therefore, an explorer’s quest is pursuing “better value” that customers will come to want, but only after the ecosystem and value-creating process have been re-designed and the better value is clearly articulated.

CANOPY: INFLUENCING CORPORATE PURCHASE DECISION TO SAVE OLD-GROWTH FOREST

Nicole Rycroft is the founder and executive director of Canopy,23 a Canadian civil society organization dedicated to protecting the forests. For two decades, Canopy has harnessed the power of the marketplace to help protect the world’s endangered forest and transform supply chains to be more sustainable. Canopy works with the forest industry’s biggest customers and their suppliers to develop game-changing business solutions that protect the last frontiers of ancient forests.

Central to Canopy’s work is that original forests are 40 times more effective than plantation forests in sequestering carbon dioxide. Yet nearly 20 million acres of forest are destroyed every year, accounting for 15% of greenhouse emissions. Depending on the region, 35-60% of the world’s forests continue to be felled to manufacture the products we consume, from T-shirts to toilet paper. The loss of these critical forests puts species, communities, and our climate at risk. Canopy casts a light on an overlooked ingredient in global manufacturing: fibers from endangered forests.

Transforming Book Publishing—The first step in a 20-year exploration

Nicole’s exploration for a scalable solution started when she approached the Canadian book-publishing sector. Instead of relying on individual consumers to make the “ancient forest free” choice, Nicole went straight to leading publishers with the bold idea of making the Canadian book-publishing sector into an ancient forest free industry.

Nicole’s team has changed consumption patterns throughout the supply chain by actively working with major publishing companies—including Penguin Canada, Random House Canada, and Doubleday Canada. The Canopy team has negotiated new paper product specifications with producers, oversaw test runs with printers, and assisted publishers in managing demand issues.
Paper producers coordinate with logging companies, tree farm owners, and recycling companies. Once this transformation of the paper supply chain started gaining traction, Canopy also figured out ways to engage the Canadian public and shift mindsets about an issue that affects everyone. Just before the final volume of the Harry Potter series was ready to print, Nicole convinced its author, J.K. Rowling, to persuade the publisher to use only ancient forest-friendly paper. This one print run alone has saved more than 15,000 old-growth trees. This media success triggered many other authors and publishers to make similar choices in Canada and beyond. Since 1999, more than 100 Canadian book publishers, a 1.7 billion dollar industry, have committed to ending sourcing from ancient and endangered forests.

**Rapid Scaling to 750+ companies representing over 300 billion USD committed to sustainable supply and distribution chains**

Building on its experience with publishers, Canopy applied its methodology and approach to two of the largest wood fiber consumers: the fashion industry and the cardboard and paper packaging industry. Through the CanopyStyle initiative, Canopy partners with fashion brands, designers, and viscose suppliers to keep the world’s endangered forests out of viscose or rayon clothing. Its Pack4Good campaign targets large consumers of forest products to eliminate ancient and endangered forests from their cardboard and other paper packaging and support the development of innovative solutions.

Today, Canopy works with 750+ of the forest industry’s largest customers globally, from book publishers and printers to leading clothing brands and fashion designers, to help reshape their purchasing practices. Canopy has transformed the purchasing patterns of hundreds of the world’s largest brands, catalyzed two of the world’s most significant conservation initiatives, and mentored similar initiatives in 13 countries. Its initiatives are safeguarding the biodiversity and the long-term survival of ancient forests by shifting heavy paper-consuming sectors away from products that originate in the ancient rainforests of British Columbia and forests globally.

At the same time, Canopy and its corporate partners are creating market demand for ecologically viable alternatives. Instead of relying on individual consumers to make the “ancient forest free” choice, Nicole went straight to corporate purchasers: a strategy that combined the possibility of her innovation growing to scale and building in the economy of scale for environmentally sound alternative papers and construction materials. Companies who sign on are rewarded by Canopy’s strong social media marketing and product branding campaigns, which add value to their brands while educating consumers about the issue and reinforcing their purchases with these companies.

As more and more companies come on board and the demand for ancient forest-friendly paper increases, the cost of using such paper continues to decrease. As consumer awareness increase, businesses who have joined forces with social entrepreneurs like Nicole to pioneer socially and environmentally responsible solutions are gaining a strategic market advantage.

**Canopy’s next audacious goal is to remove 50% of the wood fiber from the pulp for paper and Manmade Cellulosic Fibers (MMCF) supply chain by 2030**

Canopy developed a ten-year action plan to save 30% or more of the world’s forests by 2030 by replacing 50% of the forest’s global pulp supply with alternative fibers, like agricultural residues, which are currently burned, and cotton textile waste, which is currently landfilled. Compared to conventional wood pulp, manufacturing with Next Generation alternatives uses low carbon feedstocks that require on average 90% less water, 70% less energy, and far lower and greener chemical inputs. This is an audacious solution, backed by well-researched numbers, and
presented as a business case for investing in mills to make these alternatives and in new well-sited, and well-managed forests.

The work of the Explorer with an ambitious strategy to change the world never ends. Nicole and the Canopy team continue re-imagining supply chains and enabling ways to engage entire industries to be change agents in saving the forest.

**THE “DARWINIAN” SURVIVOR**

No victory is permanent, and neither is any edge that an entrepreneur might temporarily gain through business model innovation. The “broken market” will eventually mature through the right interventions, competition will intensify, and availability will no longer be an issue. This is the world of the Darwinian survivor who finds ways to differentiate themselves from competition to survive and thrive.

For example, in 2007, M-Pesa was the first text message-based payments system to address the payments gap in Kenya. The uniqueness of the solution and utter lack of competition in the early days meant they grew rapidly and came to dominate the Kenyan market. Their forays into other countries were also successful. Soon new competitors arose who recognized the power of the solution and decided to copy and relentlessly improve on the original idea. As the mobile payments market dynamics and its business model evolved, the role of entrepreneurs shifted from the transformer to the Darwinian.

It is not unfair that competitors can catch up by copying. Instead, this is the ultimate testament to the power and efficacy of the new ecosystem and value creation process that the entrepreneur has created. Furthermore, this means that the entrepreneurial idea is self-sustaining, given wide adoption by customers and competitors alike. However, the business is now in an ocean of competitors, so it becomes increasingly necessary to differentiate the value proposition. The weapons typically deployed in this new war range from operations excellence, scaling for economies, branding for higher margins, and building temporary moats through intellectual property, network effects, etc. This is the reality that the Darwinian deals with where availability is no longer a barrier to access and focus shifts to “winning the value chain” to survive and thrive.

**ALL ROADS LEAD TO “DARWINIAN”**

You don’t choose the type of entrepreneur you want to be. The reality is that the business’s strategic challenge often dictates what entrepreneurs must do. **Since business challenges are ever-evolving, so must the entrepreneur.** If an entrepreneur does manage to choose the right interventions along the way, they will eventually have to learn to master being a “Darwinian.” The following section explores this journey of an evolving response to evolving business challenges by examining the 5G roll-out.

The 5G network currently being rolled out is expected to revolutionize many industries, including gaming, healthcare, education, entertainment, etc. The problem is that the cost of even a limited roll-out is high, and telecommunications companies are struggling to justify making significant investments before demand is apparent. A more profound conundrum is the branding challenge. The conventional unique selling proposition (USP) of telecommunications companies is generally based on speed and range of connectivity. The shift to 5G, however, will make speed irrelevant and range will be limited instead by high roll-out costs.
Thus, incumbent Telecommunications companies who were comfortable playing the role of Darwinian (see step 1 in the figure below) now find themselves in the strategic context of the fixer since the cost of a nationwide roll-out is too high for an individual business to overcome.

Bain Consulting Group suggests that telecommunications companies could pool resources to create a shared network to minimize the cost associated with the network rollout. This strategy overlaps with the fixer recommendations in our framework. Bain asks a further question: What will the company’s USP be since speed and range will no longer be differentiators?

If speed and range are not relevant considerations for future customers, then Bain recommends businesses focus on learning new skills, such as introducing services like gaming and financial transactions, and improved customer service. In effect, the fixer will have to morph into an explorer (step 3) of new and better value once the network availability challenge is overcome. This will need the forging of yet new partnerships and new mindsets for value creation and value sharing. Success will enable businesses to finally morph into a Darwinian (step 4) as unique ecosystems mature and competition intensifies for the new services.

Telecommunications companies with 5G, Tabit with smallholder farmers, Zipline with drones, and others, might unlock vast value as they attempt to become architects of new ecosystems. The ultimate testament to their success in changing the world will be for their business model to be widely copied and improved upon, and for them to become one of the many businesses offering the same product. However, the advantage is a considerable head start! As Elon Musk once said, “Moats are lame. What matters is the pace of innovation—that is the fundamental determinant of competitiveness.”

Figure 4: As the strategic challenge evolves, so does the type of entrepreneur you need to.

While having a new product or technology like 5G is a good start, a business and the entrepreneur leading it must be flexible to adapt to strategic challenges and new iterations of its business model. Often, this journey can be far more of a challenge than the development of the technology or the product itself.
FOR ENTREPRENEURS & INNOVATORS: UNDERSTAND THE ENDGAME TO WIN THE GAME

Businesses must understand the game before winning it and the game is defined by the problem that needs to be solved. “Broken markets” are shaped by the three distinct features: cost structure challenges, market-specific barriers, and the need for “better value.” The “broken market” entrepreneurs—transformer, fixer and explorer—are playing three different games. These entrepreneurs can only manipulate the outcome of the game by shifting market dynamics in their favor.

Winning the game implies that this idea has reached the full scale possible, addressing the availability challenge to its fullest potential. But what is that scale for each of these three strategic approaches? What are the barriers to achieving that scale? In other words, what does “winning” look like? Understanding this upfront will help set the right expectations with all stakeholders.

FOR THE TRANSFORMER: COMMON PROBLEMS HAVE GLOBAL SCALING OPPORTUNITIES

1. COMMON PROBLEM: Problems related to payments, lack of efficient marketplaces, cost of blood storage, etc., held the potential for replication since they are common challenges in many markets. A true transformer can hence hope for the idea to spread globally.

2. BUSINESS, NOT CHARITY: Vodafone enabled Tabit’s distribution operations in economic self-interest rather than corporate social responsibility initiatives. Vodafone captured a loyal customer base in Kenya and Turkey, and everywhere the idea was replicated. This ensures that strategic partnerships are on equal footing and sustainable.

3. NO CHANGE IN CORE OPERATIONS: Tabit and Vodafone enabled each other, rather than requiring them to change their core operations dramatically. This ensured that the strategic partnership was easier to establish and sustain.

4. AN ATTRACTIVE SOLUTION FOR ALL MARKET SEGMENTS: More convenient payments offered by M-Pesa were attractive for even higher income segments, which helps improve overall margins and makes it more viable for global adoption.

Failure to meet any of the requirements above could result in a business model that might scale but not necessarily become profitable or sustainable. Note that we are talking about the idea (or the new value creation concept) winning, not only an individual business. Success of an individual business in expanding globally will depend on the speed and quality of execution compared to new competitors who will try to fill in gaps.
FOR THE FIXER:
SPECIFIC PROBLEMS LEAD TO A SPECIFIC SCALE

1. SPECIFIC PROBLEM: Both Yara and All-Life targeted market-specific challenges in Tanzania and South Africa, so replicating solutions to other markets is unlikely to happen organically since challenges in each market and competitive landscape will be unique.

2. INVEST IN OTHERS: Tanzania fertilizer market needed investment in infrastructure, port operations, etc., to become viable. “Fixers” must think beyond the silo of their businesses when making investment decisions.

The fixer is thus a transformer of the ecosystem within a target market. At the same time, Tabit and Zipline are disruptors of the value-creating process itself, leading to the transformation of ecosystems across markets.

FOR THE EXPLORER:
BE MINDFUL OF THE COMMERCIAL COST OF “DOING BETTER”

1. PRICE KILLS MARKET SIZE: Successful explorers like Nicole know that looking to make “doing good” or making “social license to operate” an integral part of business generally comes at a cost. This cost has to be passed down to the end consumer, limiting the potential market size for a solution and impacting how many businesses adopt similar resolutions. The most ubiquitous example of this is the premium placed on organic foods in grocery stores. However, Canopy’s approach of industry-wide mindset change offers a viable path.

2. TECHNOLOGY TO THE RESCUE: Amazon has demonstrated over the decades that technology can help businesses deliver “better value” at a lower cost. The scale, then, will only be limited by the company’s speed and quality of execution.

3. A SMALLER INFLUENCER CIRCLE MEANS A GREATER CHANCE OF SUCCESS: Canopy first focused on a few influential authors like J.K. Rowling to help change mindsets in Canada in the publishing industry. Likewise, Canopy concentrated its first decade of work on engaging champions in the supply chain who played a crucial role in adopting purchasing practices that prioritize wood fiber from plantation forests. So if a business wants to influence, we recommend targeting consolidated industries with fewer players or few influencers who can have a large scale impact on behavior.

FOR CORPORATES & GOVERNMENTS:
ENABLE OTHERS AS A SHORTCUT TO INNOVATION

Big corporates can often be clunky, bureaucratic, slow-moving organizations where innovation is usually stifled. Governments can safely be assumed to be the worst form of corporate structure in most cases—bloated and wasteful. Regardless of whether a business is lean or clunky, innovation is possible without fundamentally changing operations. Vodafone played the role of an enabler to Tabit to become part of the transformer tag team, creating verticals in the process it could integrate into its operations if the initiative proved successful. Rwanda maximized the impact of its relatively small healthcare budget by enabling Zipline, and in the process, it saved millions of dollars and thousands of lives. Publishers in Canada partially outsourced their marketing to Canopy by allowing themselves to be branded for specific values. Unconventional partnerships where the more prominent player enables the minor player in an unrelated industry can thus be a low effort, high reward pathway.
It is essential to recognize that anyone trying to extract value from the same market is vested in seeing the markets operate to their full potential, and these market players are potential allies. These allies can include product competitors, suppliers, distributors, and even the workforce. Even more broadly, partners can appear in interconnected value chains like AllLife in insurance for the banking sector and Vodafone in the agriculture sector for Tabit.

**FOR INVESTORS:**
**THE PIE IS BIGGER THAN IT LOOKS**

Investors need to appreciate that more than one disruption could lead to a cascading effect on related industries. Businesses must capture the total value created in the more comprehensive system rather than being limited to the impact within the confines of a single value chain or individual investment.

For example, the smallholder farmer in Turkey who was a Tabit customer might use the same platform for making calls as accessing market-related information. If Vodafone offers payment services, the farmer will also make financial transactions on the same platform. The combination of payment services, audio calls, and market information would further enable the integration of agriculture-related services under one platform. The sale of fertilizers could happen more smoothly, marketing materials could also be better targeted, and crop insurance could be purchased more seamlessly. Zipline’s fleet of autonomous drones offers an opportunity for similar integration of solutions in logistics and in other sectors.

Investors will be well advised to consider whether they are dealing with a standard business opportunity or a disruption platform that will potentially integrate multiple revenue streams into its operations. An analyst once predicted that Amazon was overpriced because it would have to sell every book in America to justify its valuation.

**FOR ALL STAKEHOLDERS:**
**NEW SKILLS AND MINDSET**

While identifying the problem resulting in the “broken market” and devising the right solution is essential, it is not enough. Skills that served businesses well in the past will become obsolete through the evolution of these markets. Achieving market adoption of such ideas may require mindset change from customers and a more comprehensive range of stakeholders, including entrepreneurs.

The 5G roll out example illustrates this since the speed of the network is no longer a differentiating factor, use cases are still evolving, which hampers market adoption, and telecommunications companies will have to learn new skills to devise new service offerings that make 5G essential for customers before they make generate meaningful ROI.

Mindset change is a more profound challenge because invariably, the problems these entrepreneurs are solving are rooted in the mindset or worldview of both the entrepreneurs and those affected by it and in a position to solve it. For Tülin, this translates into farmers distrusting the unfamiliar and resigned to depend on local loan sharks and accept the low prices they were paying for their products. For Nicole, it is a question of getting better at influencing critical players in the publishing industry’s supply chain and consumers more broadly to provide them with a compelling reason to become champions of the new way of sourcing wood fiber.

Constantly learning new skills and transforming customer mindsets are complex challenges. But it is also why the opportunity is there to exploit to begin with.
Conclusion: Have a crack! it’s worth it.

“Broken markets,” where viable customers suffer from lack of availability, are the graveyard of conventional businesses. The “Darwinians,” with instincts developed to dominate their value chain, find themselves at a loss when the market systems are dysfunctional, and neither they nor their competitors can effectively compete.

Businesses need to envision new value creation and develop new business models that trigger a strategic and fundamental long-term shift in market dynamics. From the Darwinian drive to compete, the business focus needs to shift to creating “new value.” Entrepreneurs, businesses, investors, and Governments who want to tackle such markets need to understand the root cause of the “broken market clearly,” and the type of solution they need to deploy to unlock it. When systems entrepreneurs can find a way to change how value is created, they can unlock demand and make products available at a whole new scale.

This framework is intended to support entrepreneurs, their teams, and their allies to see availability challenges in their own industries’ demand and supply chains. Businesses like Tabit and Zipline chose to make interventions directly with critical enablers from other organizations. Canopy, Vodafone, and the Government of Rwanda made indirect interventions by enabling the primary player. From fertilizer delivery in Tanzania to the 5G network rollout in the United States, “broken markets” come in a diverse range of exciting challenges for innovators looking to use business to make their mark on the world.

BE BOLD
Forge a path to solving “broken markets” by thinking systems rather than silos within a value chain, and you will unlock vast value for your business and the society in the process. Migrate your energies from a race to compete to a race to create. Leapfrog the challenges of the old markets by creating new value creating systems. You might just change the world by changing how business is done.
Appendix.
What type of entrepreneur do you need to be?

You have hopefully gained insights into the nature of “broken markets” and the type of strategies that you need to deploy to overcome them. But where do you begin to apply this to your own business? As we recommended earlier, start by understanding the access challenges faced by your customers. Figure 5 below presents the framework in the form of a decision tree. It is designed to guide you in determining the type of entrepreneur you need to be based on the nature of the strategic challenge you are facing in reaching your end customer. As we have seen through the various cases, three of these entrepreneurs are changing systems, but the Darwinian is focused on business as usual. Hence, the focus is optimizing an existing value chain.

Figure 5: What type of entrepreneur (or even intrapreneur) do you need to be? Understand your strategic challenge to identify the right approach and the kind of entrepreneur or corporate intrapreneurship you need to deploy.

The Three Paths to System Change

1. **The Transformer**
   - Unviable market due to business cost structures
   - When cost structure is too high, you have to disrupt it

2. **The Fixer**
   - Broken eco-system hampers business
   - When value creating eco-system is broken, you have to find a way to fix it

3. **The Explorer**
   - Customers missing “better value”
   - When you want to add “better value,” you need to change how value is created

Unviable customer due to low income

The Darwinian
- Extract maximum value from existing market or squeeze margins to reach low income segment

BUSINESS AS USUAL

SySTEM CHANgE PATHS
- Examples in article:
  - TABIT–Vodafone
  - MPesa–Vodafone
  - yara
  - AllLife
  - Canopy
  - Amazon

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4 For a definition of entrepreneurship and system change entrepreneurship, please see Boxes 2 and 3.


7 Tabit and Canopy are led by two social entrepreneurs - Tülín Akin and Nicole Rycroft, respectively—who choose to change markets by operating as civil society organizations. While their organizations have sustainable sources of revenues, they operate under non-profit business models to ensure their neutral convening power and capacity to deliver impact at scale.


9 Note that we are not referring to product innovation, which while convenient, is not always possible. Squeezing margins could also result in barriers to scaling and poor customer experience. Moreover, it is hardly new.


11 See the original online marketplace at https://www.tarimsalpazarlama.com/ Its name means “Agricultural Marketing” in Turkish. This marketplace continues to provide web-based services to farmers that are proficient with the internet (as opposed to those who prefer the Vodafone’s Farmer Club mobile app).

12 Tabit also persuaded the local bank to offer credit cards to small farmers, ending their dependence on “loan sharks” and opening the possibility of additional banking services to many of the 3 million Turkish farmers.


18 For an in-depth discussion on why, after almost two decades, the mega public-private partnership known as the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) has only been partially implemented, see Emmanuel Sulle, “Bureaucrats, Investors and Smallholders: Contesting Land Rights and Agro-Commercialization in the Southern Agricultural Growth Corridor of Tanzania,” Journal of Eastern African Studies 14, no. 2 (2020): 332–53.

19 Interview with Ross Beerman, one of the AllLife co-founders, on May 4, 2020.


21 For a description of how Kaliber has built a new offering for insurance providers in Europe serving the significant diabetic customer base, see https://www.kalibre.life/

22 While Amazon has grown into a behemoth since 1994 with commercial interests in multiple industries, back then, Amazon was still a young business focused on book delivery. It is only the strategic choices made by Amazon around book delivery in 1994 that we are considering above.

23 Learn more about Canopy’s Campaigns, Tools, and Resources at http://canopyplanet.org/


25 MMCF such as Viscose/Rayon, Lyocell, and Modal are the second most important group of cellulosic fibers after cotton, with an average demand of 5-6 million tons annually. MMCF, usually made of wood or bamboo, are produced mostly in Asia (over 80%). See “Standards - Textile Exchange,” accessed December 30, 2021, https://textileexchange.org/standards/


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Unlocking Value in Broken Markets
A Framework for System Change Entrepreneurs

The Legatum Center for Development and Entrepreneurship at MIT believes that innovation driven entrepreneurship is a key driver of global prosperity. Toward this end, we engage in research and thought leadership focused on understanding the role that innovators and entrepreneurs play in solving complex global problems and leveraging market systems for all. We focus on developing new ideas of who an entrepreneur is, where innovation happens, and what cultures of entrepreneurialism look like. This lens helps us in identifying the specific role that entrepreneurship and innovation plays in scaling the solutions that drive deep impact.