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Working Paper

# The Business Architecture

*The Hidden Code of Industry Disruption*

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“A problem well stated is a problem half solved.”

– John Dewey

Before Orville and Wilbur Wright successfully flew the first airplane at Kitty Hawk, North Carolina in 1903, people had been trying to fly by mimicking birds. Some documented attempts a thousand years earlier consisted of little more than gluing feathers on one’s arms and flapping furiously. More sophisticated forays strapped curved wings made from springs and feather-covered whalebones onto the body. The most advanced efforts were mechanical contraptions with flapping appendages, like Leonardo da Vinci’s “ornithopter.”

We know today that every one of these attempts to fly like a bird was doomed to fail from the start, no matter how many experiments were attempted. That’s because the solution’s underlying “architecture”—the basic logic by which a thing works—was flawed. Physics tells us there is no credible way that flapping wings can generate enough lift to overcome the force of gravity exerted on a human body.

Numerous “disruptive industries” today appear to be futilely flapping their wings in an effort to make a business model fly, from app-based food delivery (e.g., Deliveroo, DoorDash, Uber Eats), peer-to-peer car sharing (e.g., Turo, DriveNow, car2go), online women’s designer clothing rental and personal shopping (e.g., Rent the Runway, Le Tote, Stitch Fix), to buy-now-pay-later consumer financing (e.g., Klarna, Affirm, GreenSky, and Afterpay). In each one, dozens of startups have relentlessly experimented for a decade or more in search of profitability, only to come up short.

Having worked at the intersection of disruptive innovation research and practice for two decades, and collectively led or guided over two dozen new corporate ventures and startups, we believe the source of the problem is the same one that sunk early attempts at human flight: they all rest on compromised business architectures.

Just as all fix-winged aircraft share a common underlying architecture, so too do the businesses that make up an industry. A business architecture is the fundamental commercial logic by which a core functionality is productized and sold to a customer group. It’s like a product architecture, but for the entire business.

A business architecture manifests in a business form factor—a high-level concept that captures the essential form and function of the product, and how the business works. For example, automotive companies like Ford, Toyota, and Mercedes profitably provide the core functionality of “land-based transportation via engine power” through a business form factor that can be described as “assembly line-based, standardized passenger cars for multi-person transportation sold, financed, and serviced through branded car dealerships.”

The business architecture sets out the essential rules of the game in an industry—the basic shape of the product; the basic way it’s made, sold, and monetized; and the basic margin structure and cost parameters of operations. It establishes the proverbial sandbox within which companies’ business models are designed and continuously innovated.

And while each company’s performance depends on how effectively and efficiently their particular business model works relative to the others, the business architecture constrains the performance potential of any single company and its business model. It sets a ceiling on how

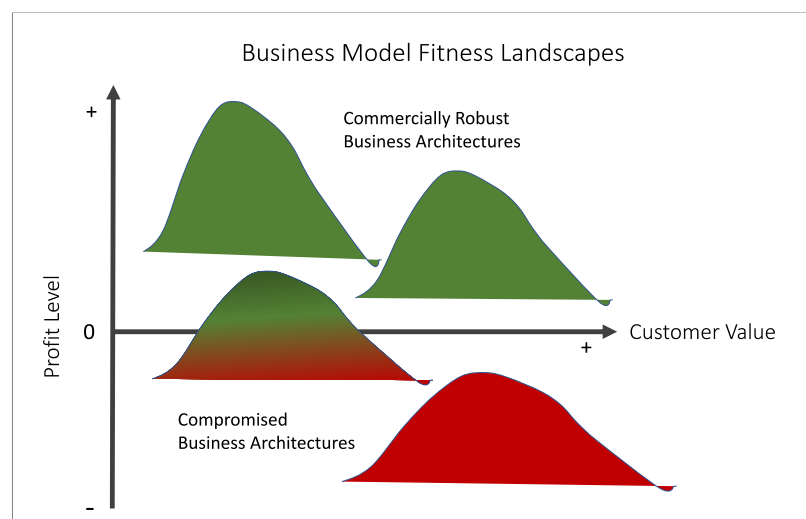
much value can be created for and extracted from the customer, and a floor on the cost structure. To use a term from evolutionary biology, it establishes a “fitness landscape” of all potential business models.

That’s why the performance of companies across an industry converges over time, as optimal design strategies and operational processes diffuse. Ford’s, Toyota’s, and Mercedes’ gross margins all fluctuate between 16%-20%, and their five-year average net profit margins between 3%-7%.

When industries are “disrupted,” an entrepreneur innovates a commercially-viable business architecture for a new core functionality or technology that performs the same basic job as the incumbent core functionality. Think digital camera versus a film camera. The new business architecture, however, significantly shifts the fitness landscape—it drops the cost floor and/or ratchets-up the ceiling on the value potential to the customer relative to the incumbent industry’s fitness landscape. As the late disruptive technology guru Clay Christensen pointed out, when that happens, the incumbent industry collapses as it simply cannot compete.<sup>1</sup>

The key point is that a new technology only becomes a disruptive technology inside a commercially-viable business architecture. The disruptive innovator’s true dilemma is that not all business architectures are commercially viable – some are compromised.

A compromised business architecture is one where some or all of the fitness landscape is under water. So, in the best-case scenario, there’s a very narrow path to profitability. That translates into investing more time and money experimenting with different business models in order to discover one that’s profitable.



At worst, there simply is no way to get a core functionality

to a customer in a way they want, at a price they’ll pay, and at a unit cost required for profitability. In other words, the business architecture is “out of the money”—even the most optimally-configured business model won’t be profitable. It’s trying to fly by flapping wings. Startups toiling away under these conditions are zombie businesses that will ultimately have to shutter or do a “hard pivot” to a completely new business architecture—a new way of productizing the core functionality and make, sell, and monetize it.

And unless you are deliberately probing for it, the business architecture is invisible—like the DNA inside our bodies, or steel rebar inside the concrete walls of a skyscraper. You can see

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<sup>1</sup> Christensen, C. M. (2016). *The Innovator's dilemma*. Harvard Business Review Press.

product features, distribution partners, marketing campaigns, and salespeople, but someone has to explain the underlying logic of why they even exist and look the way they do.

To avoid wasting time and resources futilely experimenting with business models resting on compromised business architectures, disruptive innovators need to start the venture creation process by engineering a robust business architecture – one whose fitness landscape is all in the money.

It's not a novel idea for those whose job it is to innovate new, complex systems, which is exactly what a business is. That insight, which dates back to the total quality management movement of the 1970s, forms the basis of how companies today are managed.

Systems engineering is a discipline whose core competence lies in innovating new, complex systems where the level of uncertainty is extremely high. It's used to design everything from next generation satellites, deep-space rovers and military aircraft, to awe-inspiring bridges and buildings, mass-transportation systems, and global telecommunications software. The key first step systems engineers take is to create a “logic framework”—a map of the cause-effect relationships that explain how a complex system works at its most basic, first-principles level.

In this article, we explain the relationship between a business architecture and a business model, and then introduce a tool called the Business Architecture Framework (BAF). The BAF is a logic framework for business that we've developed over the past decade working with approximately two dozen new venture teams at global corporations including Pearson, Barclays, and Procter & Gamble, as well as several startups. It defines precisely the core problems and barriers on which commercial viability rest.

While it can be used to probe the underlying business architecture of existing ventures, the BAF's real power lies in innovating commercially-robust business architectures at the start of the entrepreneurial journey. While it requires a few months of deep research, analysis, and number crunching, it avoids the millions—even billions—of dollars of losses that can come from years of laboring under a compromised business architecture.

## The Business Architecture Versus the Business Model

All systems—things comprised of interacting parts connected in such a way that the whole can do things the individual parts can't—have architectures.

Business innovation has long recognized that products are “mini systems” with their own architectures.<sup>2</sup> Product architectures define the high-level pattern of parts and components that allow it to perform the high-level functions it's meant to. Today, product designers are trained in systems engineering to ensure product architectures are optimized before diving into detailed designs.

But, like the engine of a jet airplane, products are themselves parts of a larger business system, or business model. Every business model brings products together with countless other parts to solve a customer problem profitably and keep competitors at bay—from raw material suppliers,

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<sup>2</sup> Henderson, R. and Clark, K. (1990). Architectural innovation: The reconfiguration of existing product technologies and the failure of established firms. *Administrative Science Quarterly*, 35(1).

manufacturing and distribution facilities, to brands, marketing strategies, retailers, salespeople, and customer service managers. Just like a product, every complex business model is an expression of a deeper structure or pattern—its business architecture.

To understand the difference between the business architecture and the business model and the different roles they play, think about the architecture as a “deep structure” and all the detailed parts as a “surface structure,” like the shared human DNA inside our diverse bodies.

A system’s deep architecture codes for the most basic functions essential for its viability. That’s why it operates at a “specie” or group level—it’s a platform. It’s made up of only a handful of broad mechanisms that are tightly woven together into an overarching solution. A change here can crash the whole.

The detailed surface structure solves functions essential for a system’s adaptability—that is, for it to work under diverse conditions and in the face of continual change. That’s why it operates at the level of the individual. The responsiveness and adaptability come from those detailed parts doing a countless number of detailed jobs tailored to a specific case. Some parts are clustered together and work together closely, while others are loosely connected, thereby allowing experimentation to happen without crashing the whole.

Much of the confusion around what a business model is and does, and the reason why a wide-range of definitions exist<sup>3</sup>, arise in part from the conflation of a business’s deep structure and surface structure.

A business’s deep structure—its business architecture—is where a business’ potential to generate “self-sustaining value” originates. A product made for \$5 and sold for \$5 generates self-sustaining value, as the business can live on without external subsidy.

A business’s surface structure—its business model—is where that potential is realized and “competitive value” originates. It takes the product made for \$5 and sells it for \$5.50. These economic rents allow a firm to do research and development, experiment, and evolve as new technologies and competitors emerge.

For self-sustaining value to exist, three things have to happen: surplus value has to be created; it has to be exchanged; and it has to be retained. The key word here is “surplus”—it’s what breathes life into a business. It means \$2 of inputs are brought together in a way that solves a problem worth \$4 to the customer.

**Create Surplus Value:** Make a solution that generates more value for customers than the whole cost of the solution, including return on capital.

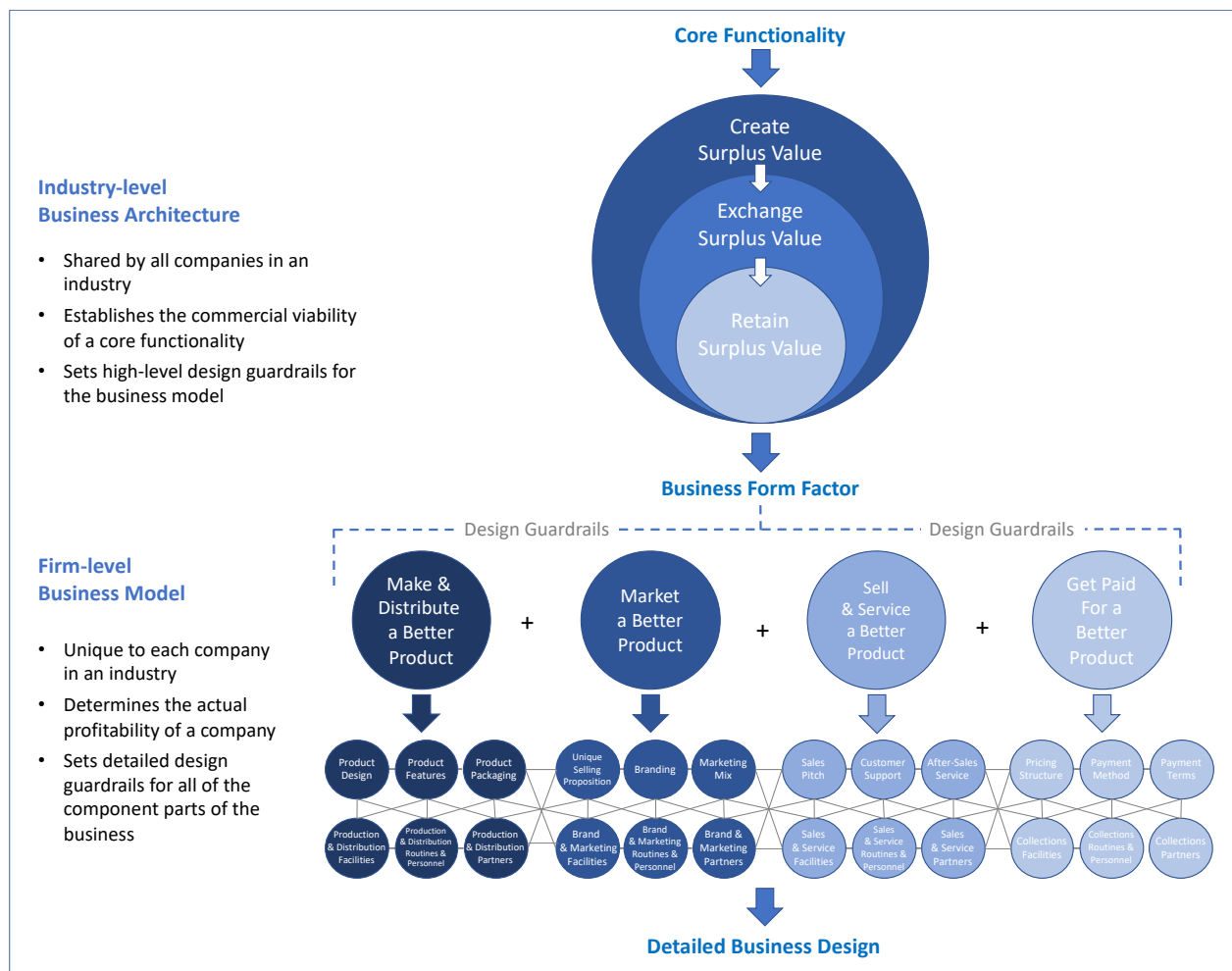
**Exchange Surplus Value:** Convince customers to pay a price for the solution that is equal to or greater than the whole cost of the solution.

**Retain Surplus Value:** Hold onto a portion of what customers pay that is equal to or greater than greater than the whole cost of the solution.

The business architecture solves for these three functions working from the original core functionality the founding entrepreneur sought to bring into the world. Think of core functionality

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<sup>3</sup> Da, C. M. and Trkman, P. (2013). Business model: What it is and what it is not. *Long Range Planning*, 46(1).



as the “core capability” of a product. It’s the most basic expression of the “job” that companies’ products do, and how they do it. A flashlight’s core functionality could be defined as “task-level lighting via battery-powered LED”; a bicycle’s as “mobility on land via user-powered gears.” A core functionality precedes every industry’s eventual product.

The unique challenge at the architectural level is that functions are nested and tightly connected. The way you choose to create surplus value affects the challenge in exchanging and retaining it; but you can’t solve for exchanging and retaining surplus value, until you’ve created it; and the cost of resources and activities needed to exchange and retain surplus value impact the ability to create it in the first place.

As a result, you get intense interaction effects: using a direct sales channel may help customers better understand a new offering’s value and spur sales, but significantly drive-up customer acquisition costs, thereby decreasing surplus value created and shrinking the surplus value that can be retained. That’s why good business architectures are simple and elegant—it avoids these negative interactions. It’s something we’ll discuss later in the article.

Solving the functions converts the core functionality into a core solution—a business form factor—that now holds commercial potential. The “business form factor” isn’t a finished, ready-to-go business that is guaranteed to be profitable. It’s like a sourdough starter that holds the potential to become a delicious loaf of bread. And there’s a basic recipe that must be followed—i.e., the design guardrails. But the exact loaf of bread that comes out and its quality depends on the baker and the detailed recipe they use.

The business model is what releases the potential in the business form factor and determines a company's actual profitability. It does so by assembling a slew of detailed parts to solve for four firm-level functions: make and distribute a better solution optimally, market a better solution optimally, sell and service a better solution optimally, and get paid for a better solution optimally.

**Make & Distribute a Better Solution Optimally:** Make a product in most efficient manner possible that provides better functionality and/or is sold at lower cost than competitors.

**Market a Better Solution Optimally:** Define the unique selling proposition and create an optimal customer journey.

**Sell and Service a Better Solution Optimally:** Establish the lowest cost sales channel with the highest rate of customer acquisition, and the lowest cost customer service with the highest rate of customer retention.

**Get Paid for a Better Solution Optimally:** Set pricing and payment terms, and establish payment method that capture the greatest absolute return.

The key words here are “better” and “optimally:” better performance for the customer, and in the most cost-efficient way possible. They are the two sides of the competitive value creation equation. The better and more optimally the business model executes within the design guardrails relative to others, the better the company does.

The big difference with business model functions is that they are loosely connected. It's a result of having design guardrails. As long as you optimize a product design or a marketing mix within the design guardrails set by the business form factor and the underlying business architecture, you're not going to throw off the rest of the business model.

But, step outside those boundaries, and problems happen. Consider WeWork—the dethroned co-working company. Despite Adam Neuman's charismatic claims to WeWork being a disruptive innovation, at the architectural level it was a co-working property management company—an industry that had been operating profitably since the 1980s. In other words, there was a commercially-viable business architecture that defined the fundamentals that WeWork's business model had to adhere to in order to be profitable.

WeWork grew fast and lost a lot of money by violating those parameters—they simply gave customers and property owners a lot more than what the business architecture allowed. Property managers were offered long-term leases at higher per square foot rates to secure choice properties, while customers were treated to expensively refurbished office spaces and endless free food, coffee baristas, craft beer, and other perks while being charged less.

Regus and established competitors working profitably within the constraints of the business architecture couldn't match that, which allowed WeWork to grow fast. Once the buzz died down and the unsustainability of WeWork's co-working business model became apparent, its valuation collapsed, leading to its ultimately aborted IPO. Under the new CEO, WeWork has

begun restructuring its product and operational model to align with the commercial fundamentals of a co-working property management business form factor.<sup>4</sup>

The challenge for true disruptive innovators is that there is no commercially-viable business architecture to provide design guardrails for the business model and its parts. And if you jump straight down into the detailed parts of the business model by first building a minimum viable product and launching a boot-strapped business, you end up unwittingly creating a business architecture, as every business model ultimately contains one.

Here's where the business architecture's tightly-connected functions become a factor. When the business architecture isn't deliberately designed, chances are high that the business form factor is clumsy, leading to negative interaction effects in creating, exchanging, and retaining surplus value.<sup>5</sup> The underlying business architecture becomes compromised.

The meal subscription kit market, whose business form factor could be defined as "pre-measured and pre-cut recipes and meals shipped direct to people's homes on a subscription basis," shows strong signs of a significantly compromised business architecture.

Shipping pre-assembled recipes to people's homes highlights and reinforces the stress-reducing and time-saving element of meal kits, which drives the exchange of surplus value. It also helps the product stand out from the other-wise crowded grocery store shelves, which bolsters the retention of surplus value. But shipping fresh, perishable ingredients to people's homes requires overnight shipping. By industry estimates, shipping alone accounts for 20-30% of the average box cost.

When added to the cost of curating and pre-assembling the ingredients, the total unit cost likely exceeds the time savings and stress reduction value to the customer—which explains why 50% of customers cancel after a single month when the discounted trial ends, and another 30% drop off in the following four to five months. Lowering the price to help retain customers only pushes the business into the red.

And you can't simply eliminate overnight shipping without triggering other negative interaction effects. Several meal kit startups attempted to sell the kits through grocery stores, for example. Doing so, however, makes it harder to convince the customer that there's a lot of time-savings to be had, which comprises the exchange of surplus value. The meal kits are now also sitting on shelves alongside all of the prepped and pre-made foods that grocery stores increasingly provide, which significantly undermines the retention of surplus value.

It explains why, aside from a temporary Covid lockdown blip, almost every subscription meal kit company is struggling to achieve sustained profitability, including the far-and-away market leader Hello Fresh, despite more than ten years of intense experimentation by dozens of meal-kit startups.

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<sup>4</sup> Huet, E. (2023, February 16). *WeWork Misses on Quarterly Profit but Shows Cuts Paying Off*. Bloomberg. <https://www.bloomberg.com/news/articles/2023-02-16/wework-misses-on-quarterly-profit-but-shows-cuts-paying-off>

<sup>5</sup> Simanis, E., Manuel, T., Khater, M., Palmer, E., and Bergmann, J. (n.d.). *The Business Form Factor: Getting from Zero to One the Right Way*. YNOT Institute Working Paper, University of Cambridge.



Those same signals are present in the food delivery app industry, where—despite the accelerated growth that the Covid lockdown enabled—none of the market leaders, including Uber Eats and DoorDash, are profitable. And the hard pivots we’re seeing by former startup darlings struggling with continued losses is a strong sign that their original business architectures were likely out of the money. For example, Rent-the-Runway, the online renter of high-end design women’s clothing, is expanding into home décor and furnishing rental with the stated goal of being the Amazon Prime of rentals. Scooter startup Lime is moving away from being a scooter-rental company, to a “micro-mobility platform.”

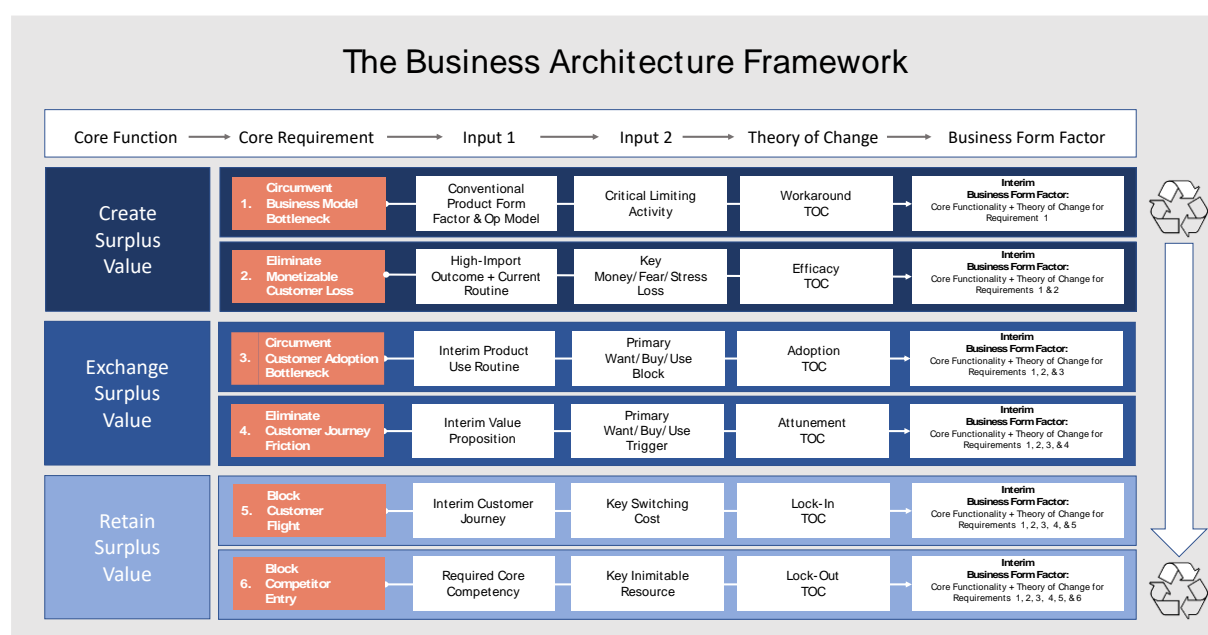
Having discovered the critical importance of the business architecture to disruptive innovation, we set out over a decade ago to better understand it. The result of our research and collaboration with approximately two-dozen corporate venture teams and startups is the Business Architecture Framework—a logic framework that reveals the otherwise hidden code of industry disruption.

## The Business Architecture Framework

The Business Architecture Framework (BAF) guides the innovation of new business form factors that have a robust path to profitability. It was developed out of research and work applying systems engineering to new venture creation.

In every case, the key first step in solving for a system architecture is rigorously defining the system’s high-level functions and the core requirements that support them. In other words, what are the most basic things the system has to do (functions), and what are the most basic things it has to do to credibly perform them (requirements)?

The Business Architecture Framework breaks down the three essential business architecture functions of create, exchange, and retain surplus value into six core requirements and a chain of inputs for getting to a solution (see below).



Each function lists two core requirements—one that faces the customer side of the equation, and one the operations side. The core requirements, like the functions, operate at a first-principles level. They define what's *minimally necessary* for the business functions to be performed. In other words, if *these* requirements aren't met, the business architecture will be compromised. The sequence of inputs holds to that pattern—they specify two essential pieces of information needed to minimally solve each requirement.

### Create Surplus Value Chain of Logic

Two things must minimally happen in order to create surplus value: the venture has to get around a bottleneck that prevents existing business models from already having profitably commercialized the core functionality, and it has to eliminate a significant “loss” from something customers are doing today that holds monetary value for them.

To know how best to **circumvent the business model bottleneck**, you need to map out and model the conventional or “default” way of productizing and selling the core functionality. Next, you need to isolate the critical limiting activity—the business activity can't be brought down below some threshold and causes the cost of a solution to exceed the target customers' ability to pay.

To know how best to **eliminate a significant monetizable loss**, you need to first define the customer outcome (or customer job to be done) that the core functionality can meaningfully impact, and which holds the greatest intrinsic value. Next, you need to identify the greatest money, fear, or stress “loss” (in that order) that can be monetized and eliminated from the customer's current routine. With a money loss, the product saves the customer money. With a fear loss, the product reduces the fear of not accomplishing the outcome. With a stress loss, the product reduces the difficulty of managing the current routine.

### Exchange Surplus Value Chain of Logic

Two things must minimally happen in order to exchange surplus value: the venture has to get around the key, knee-jerk reason customers would reject the novel offering, and it has to eliminate the key source of friction that would then make it hard for customers to adopt.

To know how best to **circumvent the customer adoption bottleneck**, you need to map out the product routine customers would have to follow for the product to work as intended (based on the shape of the interim business form factor), and then isolate the biggest want/buy/use block to adoption. With “want blocks,” customers aren't aware of the “loss” in their current routine. With “buy blocks,” customers doubt or can't immediately tell whether the company's product would help eliminate a loss. With “use blocks,” customers have to learn a significantly new routine and/or disrupt their existing ones to use the product correctly.

To know how best to **eliminate customer journey friction**, you need to first define the value proposition (based on the shape of the interim business form factor). Next, you need to isolate the overarching want/buy/use context that simultaneously triggers an attunement to the customer loss, a belief in the product's efficacy, and the learning of the product use routine.

### Retain Surplus Value Chain of Logic

Two things must minimally happen in order to retain surplus value: the venture has to make it undesirable for current customers to leave for competitors' products, and it has to make it difficult for competitors to launch competing products of the same quality and price.

To **block customer flight**, you have to first map the customer journey (based on the shape of the interim business form factor). You then need to identify where in the product's use routine the most significant switching cost can be created. Switching costs, as with customer losses, come in the form of money (switching to a competitor will cost extra money), fear (switching to a competitor may compromise achieving the outcome), and stress (switching to a competitor will come with extra hassle).

To **block competitor entry**, you have to first isolate the required core competency on which the customer value proposition depends. Next you have to define the most critical, non-commodifiable resource that makes up the required core competency.

### Theories of Change

Solutions for the requirements aren't in the form of specific business model parts, like "30-day risk free trial," but in the form of a "theory of change." A theory of change articulates the core strategy for solving the requirement and why it works best. It allows solutions to be broad enough that they can be productized by the business form factor—the output of the Business Architecture Framework. By productizing, we mean the core shape of the business form factor supports all six theories of change.

- 1. Workaround Theory of Change:** What is the best strategy for replacing the critical limiting activity in the default business model, or eliminating the need for the activity entirely, and the reasoning behind it?
- 2. Efficacy Theory of Change:** What is the best strategy for achieving a meaningful level of "cost" reduction in the target customers' key money/fear/stress loss in their current routine, and the reasoning behind it?
- 3. Adoption Theory of Change:** What is the best strategy for getting around or eliminating entirely the customer's key want/buy/use block to adoption, and the reasoning behind it?
- 4. Attunement Theory of Change:** What is the best strategy for eliciting the meta-context that catalyzes customers' predisposition to want/buy/use the offering, and the reasoning behind it?
- 5. Lock-in Theory of Change:** What is the best way to significantly increase customer switching costs in the product routine for efficacy, and the reasoning behind it?
- 6. Lock-out Theory of Change:** What is the best strategy for shielding the key resource on which the core value proposition depends, and the reasoning behind it?

With the BAF, a business form factor is innovated progressively and iteratively, with the form factor reconceived following the definition of each additional theory of change. It's like learning to juggle, where you start with one ball, add in a second, then a third, and so on. Each re-conception answers the questions, "*what business form factor best supports all of the theories of change up to this point?*"

Solving for a business architecture at this first-principles level cuts through the otherwise paralyzing complexity and uncertainty that sits at the business model-level and allows a basic solution to be holistically designed. Designing holistically is key to innovating elegant designs, as it creates the opportunity for synergies—solutions that support multiple functions simultaneously.<sup>6</sup> It's what makes a business form factor robust.<sup>7</sup>

To bring the Business Architecture Framework to life, we describe the innovation of a business form factor for a legal-tech startup venture called “Calmly.” Calmly was co-founded by the second author and is being piloted today. Please note, we've anonymized and disguised aspects of the case in the interest of intellectual property.

### Applying the Business Architecture Framework in LegalTech

Calmly was started with the goal of profitably bringing the core functionality of “resolves legal disputes through non-court measures” into the domain of small claims disputes—a notoriously overburdened area of the legal system in almost every country. To figure out the best way to commercialize this core functionality, the team used the BAF.

Over the course of four months, the Calmly team researched over two-hundred actual disputes in order to arrive at the six theories of change. The inputs and theories of change for each core requirement are summarized below.

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<sup>6</sup> Lovins, A. (2010). *Integrative Design: A Disruptive Source of Expanding Returns to Investment in Energy*. Rocky Mountain Institute. <https://rmi.org/insight/integrative-design-a-disruptive-source-of-expanding-returns-to-investments-in-energy-efficiency/> (Accessed 30 May 2023).

<sup>7</sup> Simanis, E., Manuel, T., Khater, M., Palmer, E., and Bergmann, J. (n.d.). *The Business Form Factor: Getting from Zero to One the Right Way*. YNOT Institute Working Paper, University of Cambridge.

### 1. Circumvent the Business Model Bottleneck:

Conventional mediation is cost prohibitive for small claims because it requires a skilled facilitator to spend significant time diffusing heightened levels of emotional distress when two disputants come together. To eliminate the need for a skilled facilitator, the **Workaround Theory of Change** draws on conflict de-escalation theory: By disintermediating the settlement process and creating “breathing spaces” where each party vents before reflecting rationally on their case, the parties are significantly more likely to make settlement offers that overlap.

### 2. Eliminate Significant Monetizable Loss:

Both parties end up losing approximately \$500 and have high fear of the disagreement escalating through conventional resolution approaches. To get both parties in their “breathing spaces” to think rationally and shift their positions enough to overlap, the **Efficacy Theory of Change** draws on rapport-based negotiation theory: By connecting individuals with supportive, trustworthy peers that engage in fact-based discussion and debate, parties are significantly more likely to change their minds and “own” the result.

### 3. Circumvent Customer Adoption Bottleneck:

The greatest block to customers believing the peer-supported breathing spaces would change the other side’s mind is the credibility of the peers. To overcome doubt about efficacy of the peer-based support, the **Adoption Theory of Change** requires a peer community knowledgeable about legal process and costs but with no monetary interest in the outcome. “Law students participating as a way of learning” was determined to best meet these requirements.

### 4. Eliminate Customer Journey Friction:

The overarching context that most effectively triggers customers to want, buy, and use the peer-powered de-escalation platform is “local community sites for public benefit,” as it brings together key concepts of impartiality, fairness, and reputational risk. The **Attunement Theory of Change** draws on consumer insights that revealed the effectiveness of leveraging the presence of a local, “truth-seeking” non-profit.

### 5. Block Customer Flight:

The main opportunity for switching costs in the product use routine for small enterprise owners, Calmly’s most frequent customer group, would come from having to “educate” potential clients about how to avoid disputes, and then convincing them to use Calmly to amicably resolve disputes should they arise. The **Lock-in Theory of Change** draws on job platform research that revealed the strategic importance of helping users have a positive transaction and retain a positive, cooperative mindset even when things go wrong.

### 6. Block Competitor Entry:

The key resource of the non-profit enabled, peer-powered dispute de-escalation platform are the university law students. The **Lock-out Theory of Change** draws on university law school research that revealed the strategic importance of applied learning in law schools, and the significant shortage of opportunities and difficulty of sourcing them.

Calmly’s business form factor productized the six theories of change in the following way:

*“Online small claims dispute de-escalation platform where peers and law students participating via a non-profit-sponsored course help each side independently understand likely costs and*

*make an undisclosed minimum/maximum settlement offer that the platform automatically 'clears' at the mutually optimal level."*

Calmly's core value proposition comes out of this business form factor: *Calmly eliminates hundreds of dollars of cost and cuts down the fear of escalation that come with resolving small claims disputes through traditional face-to-face mediation, lawyering-up, or going to court.* It's a true disruptive technology.

By design, the business form factor contains strong synergies, making it hard to disentangle the six theories of change. For example, the use of the law students sourced via the non-profit simultaneously supports the creation of surplus value by eliminating the need for a paid mediator, the exchange of surplus value via instilling a sense of credibility and trustworthiness; and the retention of surplus value by creating close ties with top law schools. These synergies are a sign of a robust business form factor.

Over the course of several disruptive innovation ventures we piloted, we discovered the critical role of two additional functions on boosting the commercialization potential of the business form factor: "normalizing customer value" and "monetizing customer value." An unavoidable challenge with all disruptive innovations is that they require customers to learn and embed a new product use routine into their lives and budgets. Using marketing to trigger and get customers through these two learning processes is too costly to do profitably.<sup>8</sup> We've created a part "B" of the Business Architecture Framework that breaks out core requirements and inputs for these two functions so that the business form factor can be harnessed to solve for them, as well. Additional information about can be found at [www.seivc.org](http://www.seivc.org).

To be clear, once a business form factor has been innovated, you don't assume the business architecture is robust. Following the practice of systems engineering, the business architecture should be modelled, simulated, and stress-tested before getting into the details of the business model. We've developed these additional modelling and simulation tools as part of the broader methodology. They, too, can be found at [www.seivc.org](http://www.seivc.org).

## Conclusion

Disruptive innovation is business at its very best. It brings new, life-enhancing functionality into the lives of every-day people and creates enormous money-making opportunities along with it. We hope the Business Architecture Framework helps the world's entrepreneurs and venture builders unlock the code to innovating the robust business architectures on which the transformative markets of tomorrow ultimately depend.

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<sup>8</sup> Sharp, B. (2010). *How Brands Grow: What Marketers Don't Know*. Oxford University Press.

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