The Central Design Problem

01

In 2018 IBM paid $34 billion to buy the open-source software leader, Red Hat. Eyebrows were raised among all who were watching the enterprise technology sector. The largest software company acquisition ever—for what? It certainly was not the revenue stream from the Linux- based products. The explanation for the deal was that IBM was buying an extraordinary team of very talented people. The only problem with that theory, of course, is that people can walk. The business press quickly observed that the success of the deal would depend on how well IBM managed the integration. In simple terms, how willing would Big Blue be to keep its hands off the Red Hat culture while finding ways to connect it into the existing business?

IBM's bet is focused on a future paradigm for enterprise IT called hybrid cloud. The business case is based on the prediction that companies will seek blended public and private cloud infrastructure, to combine with their legacy hardware. Red Hat provides critical capabilities as well as the credibility to make IBM a player in that market. For this gamble to work, the Red Hat assets must be separate, and, at the same time, they must become part of the larger company. Red Hat must remain platform-neutral with its legacy clients. But elements of its go-to-market model need to be integrated into IBM in order to extend Red Hat's opportunities with IBM's sales and marketing reach.

Then there is the matter of culture, or more accurately, cultures. In Red Hat, everyone is an "associate," while IBM's adherence to hierarchy remains mostly intact. Red Hat norms are cult-like, similar to those in other successful start-ups, centered on a purpose or a cause—not just open source, but making the world a better place by encouraging all users to be part of making the product better. IBM has long focused on discipline, planning, and making the numbers. Some have argued that the play should be to move the Red Hat culture to IBM. The appointment of Red Hat's CEO in early 2020 to the position of chief operating officer of IBM appeared to be a step in that direction.

This kind of organizational tension is inherent whenever a business changes its portfolio, whether organically or through acquisition. The new always challenges the old. And, as every industry reshapes as a result of the economic impacts of Covid-19, seeing and addressing these tensions becomes even more important. A number of health insurance companies in the United States are buying pharmacy benefit managers. While the potential synergies are clear, the advantages of scale and market reach have to be balanced with the need to maintain separation and neutrality with legacy pharmacy clients. These clients are healthcare benefit payers who use the pharmacy provider, a competitor of health insurance company. The new and more complex business model will need to change, and the offering will be built in at least two forms: a) integrated health services, which will be a bundled solution; and b) a more narrowly focused pharmacy service for clients who wish to retain their existing health insurance provider. Integrated with some clients; separated from others.

Red Hat CEO Jim Whitehurst asserted on the day of the announced acquisition by IBM that "Red Hat is still Red Hat and the company will function as a distinct unit within IBM" (Ohnesorge, 2019). That assertion may change over time. It is the rare organization today that doesn't need to integrate in some way. IBM/Red Hat and Cigna/Express Scripts are dramatic examples of the need to design organizations to bring the benefits of being big and being small at the same time. The puzzle of how to balance the benefits of scale and integration with the benefits of separation and focus can only be solved through sophisticated organizational arrangements.

As we move into a new and more complicated decade, a similar dynamic plays out in many of our clients and the companies we watch closely. We have found a historic metaphor helps illustrate this critical organizational problem of the 2020s.

The Square and the Tower

The history of the world is largely the story of a central tension that has played out for millennia in what historian Niall Ferguson (2018) characterized as "the square and the tower." Throughout history the tower has represented reigning authority and hierarchy. The square is the community of people that naturally form to resist hierarchy—networks that conspire against the tower.

From Luther and the Reformation in Europe 500 years ago seeking to remake the Catholic Church, to the Bolshevik Revolution in the early 19th century, to the 2010s Arab Spring that began in Egypt on Facebook, networks have sought to bring down authority in the tower and the concentrated power it represents. For most of history, the tower has overshadowed the square because the history of humanity is largely about military conquest and building defenses, and these require command and control. Those "towers" in Western and Eastern cultures established organizations capable of building great walls, pyramids, roads across continents, and powerful city-states.

There is an inherent and healthy tension between the tower and the square, between hierarchy and networks. When power is absolute and sits in one place for too long, the square must resist. But looking across the centuries, the two have co-existed and mostly to the benefit of humanity, argues Ferguson.

Fast forward to 2020. The belief of the past 30 years that we were headed toward a "single global market" now seems naïve. Britain's assault on the Eurozone and America's populist turn toward tariffs both feel like a rebellion in the square, pushing back on elites in the tower. Global corporations have had to adjust, often realigning their organizations toward more decentralized, locally oriented organizations, sometimes only a few years after having built highly centralized, global business units. And others are realigning their operating models to scale their brands and technologies globally, eliminating duplication among decentralized profit and loss units. The Coronavirus exposed the fragility of supply chains that have products moving across multiple national boundaries.

Business models are changing at an unprecedented rate, powered by technology, with converging forces across the value chain. As AI is fully woven into the customer-facing parts of the business, companies must change the way they operate. The lines between industries blur as algorithms decide how to assign Uber drivers to riders, how to price products online, and how to forecast and schedule production. The Conference Board survey in 2020 called out "creating new business models" as the second greatest concern CEOs have for their companies (The Conference Board, 2020).

These new business models shift power inside the company. The launch of Disney+ transforms Disney's place in the industry while also disrupting its own historic business model. In the organization, power is shifting in Disney from the movie studios and regional distribution companies to a global direct-to-consumer "tower."

In contrast, Royal Dutch Philips has nearly completed its transformation into a healthcare technology company, in which its imaging-systems hardware is only one component in a solution bundle that includes software and business and health services. Global product managers have handed authority over to general managers in the local markets who bundle hardware, software, and services components into customized health-system solutions that fit the varied needs of their regional customers. In Philips, the global "tower" has given way to the market "square."

Nike is now a full-force retailer, as well as wholesaler, with stunning gains in its online as well as its brick-and-mortar sales channels. In Nike the square and the tower have co-existed for nearly a decade in a carefully engineered balance that governs how much of its seasonal apparel and footwear collection will be the same around the world and how much will be unique to regional markets. The results have been exceptional in the otherwise sleepy apparel and retail businesses. Nike has mastered an organization that can be big and small at the same time.

In addition, a whole new set of expectations has emerged for top leaders in today's large, publicly held corporations. Along with having to deal with the tension between globalism and nationalism, trade wars, AI, digital business, and cybersecurity, top executives are increasingly expected to take stands on a number of social issues and meet new standards of safety in expectation of the next pandemic. Today they must balance the demands of multiple stakeholder groups who are calling for change in everything from a sustainable climate policy to income inequality. Retired PepsiCo CEO Indra Nooyi recently asserted, "There is a leadership vacuum today that CEOs are expected to step into and fill, because others are failing at the job" (Stoll, 2019). Those "others" include politicians in Eastern and Western countries alike. Blackrock CEO Larry Fink was making a practical business assessment when he told the CEOs of the firms his company invests $7 trillion in that "our investment conviction is that sustainability- and climate-integrated portfolios can provide better risk-adjusted returns to investors. And with the impact of sustainability on investment returns increasing, we believe that sustainable investing is the strongest foundation for client portfolios going forward" (Fink, 2020). If Nooyi and Fink are right, then corporations will bear a greater burden in attending to a broader community of stakeholders in the coming decade. This will only make organizations more complex systems to design and manage.

Core Tensions in Complex Organizations

The tension between the tower and the square takes many forms in today's complex organization. In your company, you may see it as a pull between local and enterprise agility, autonomy and scale, global and local, core business profitability and start-up energy, or speed and leverage. Today, the term "agility" is often used to mean differentiation (small, autonomous, local), while "scale" refers to the benefits of integration (big, connected, global) as shown in Figure 1.1.

The balance of power across these polarities not only will be unique for each company but also will need to shift ahead of or in response to changes in the environment. Let's examine some of these tensions.

When "agile" is used in its common form, we tend to think of small and separate business units that move quickly and locally. While this seems an appealing outcome, these models are also prone to duplicated resources, overemphasis on differences, and lack of connection and leverage. Another kind of agility is "enterprise agility"—the ability of the entire company to make fast adjustments regarding where to invest in markets, innovation, technology, and talent. Apple has always been an example of enterprise agility, betting big on new ideas and putting the resources of the organization behind them.

Figure 1.1 Differentiated vs integrated

Agile: Differentiated, Local	Scaled: Integrated, Global
• Locally responsive to differences • Focused on customers, product, regions • Vertical business units • Clear accountability for profit and loss (P&L)	• Fewer, bigger bets • Movement of talent, ideas, innovation • Shared resourcing and services • Global reach
✓ **Differentiated** Adapt to market variations Business unit speed Autonomous decision-making	✓ **Integrated** Adapt to new enterprise priorities Enterprise speed, portfolio shifts Harmonized, consolidated
✗ Duplicated resources P&L complexity High cost, lower return on assets	✗ Bureaucratic Distance from customer Less accountability

Both forms of agility—local and enterprise—matter in the 21st century, and the tension can be productive. The essential role of leaders is to find the right balance in order to gain the benefits of small, divisional, local units as well as the benefits of large, integrated organizations that exploit the collective assets of scale. In a truly collaborative organization, the tower and the square are both valued. Hierarchy and networks co-exist to deliver the value that shareholders expect from large companies.

Being small and big at the same time increasingly means carving out focused organizations that can create disruptive innovation—often disruptive to one's own business as well as others. The late Clayton Christensen (1997) called the disruption of one's own business model as the inevitable effect of true innovation the "innovator's dilemma." The organization must be designed to accommodate today's scaled profit engine as well as the agility of tomorrow's fledgling businesses. Mailchimp, a US-focused online marketing and sales services firm, is building an integrated marketing platform that brings comprehensive solutions to its small-business customers. It must organize to continue to grow its legacy email marketing business while scaling up the new platform.

These tensions between big and small, and integration versus differentiation, are nothing new to organization designers (Lawrence and Lorsch, 1967). Galbraith (2010) foresaw the need for organizations to become more "reconfigurable" years ago. The power of the reconfigurable organization is that leaders can move work to where talent, capabilities, and capacity are, regardless of where those resources are located in the world.

The Challenge of Being Global in the 2020s

This brings us to the unique challenges of global organizations. That the possibility of designing global, multi-dimensional organizations that can move fast exists does not mean it is easy. The tension between global and local is a familiar organization design problem. In the 1980s, Bartlett and Ghoshal (1989) laid out the fundamental dilemma facing multinational firms: how to achieve global coordination while simultaneously being able to be locally responsive. All organizations—even the digital natives built for speed from the ground up—face challenges of making decisions and organizing work across boundaries.

Historically, product and services companies have chosen to grow across national borders by replicating their success formula and delivering it in the local context (Galbraith, 2000). In this model, general managers are empowered to start with sales and marketing organizations and then invest in operational infrastructure. These "local-for-local" approaches are effective market-entry strategies, but often prove expensive to operate for the long term. Even enterprise leaders firmly committed to decentralized philosophies soon find that they cannot sustain the complexity and costs of atomized market units led by mini-CEOs.

In the 2000s, we saw the pendulum swing the other way. Technology advances led many business leaders to buy into "the world is flat" rhetoric and predictions that global tastes and needs would converge. They dialed back autonomy and decision authority from country-based teams and transferred those powers to global product groups. Many went too far, however, in centralizing and consolidating global product and brand management. As a result, they soon found themselves under attack by nimble, local competitors.

Beginning in the 2010s, we started to see a new flavor of global. Even digital companies need to localize their products, but no longer is the same infrastructure needed as in the past. When Spotify and Google move their success formula across borders, they can move into new markets without moving a lot of people. Global footprint strategies are today more about how best to optimize talent costs for research, development, and operations work.

The food-and-beverage industry provides a good example of this tension. While the PepsiCo brand is global, products in the company's expansive portfolio are highly adapted to local markets. Ingredients, flavor profiles, packaging, consumer marketing, and retail relationships must all be tailored to local tastes. Market leaders need, and are given, high degrees of authority so that they can compete in a fast-moving, low-margin business. At the same time, PepsiCo gains advantage over local players by leveraging deep expertise in food-science research and global consumer insights data. Its functional infrastructure, such as human resources and finance systems, is highly consolidated. PepsiCo builds these capabilities through strong coordination at the enterprise level while empowering geographic leaders to be very entrepreneurial in product creation and marketing execution.

Or, consider Otis Elevator, a 170-year-old industry leader that has installed its elevators in the Empire State Building, the Eiffel Tower, and the Burj Khalifa. Otis, headquartered in Connecticut in the US, has grown successfully with strong regional centers of power. Leaders pride themselves in being viewed as a "French company" in France. This is strategically useful. Variations among North American, European, and Asian building standards, construction methods, and economics continue to make it necessary to tailor technologies and product designs to real market differences.

But today, Otis also needs to incorporate sophisticated digital technologies to enable dynamic capacity management in 100-story towers, improve returns on new equipment installations, and meet complex demands from customers for internet-of-things-enabled services. More global harmonization of design and production has become critical. But a single global elevator design is simply not realistic across North America, Europe, and East Asia, so Otis had to find an organizational model that could deliver both global scale and local agility. Its 2020 organization enables the company to build common product and service platforms that can be adapted to regional variations in a profitable, customer-focused manner, competing against both global and local players who are willing to go to market at lower price points.

The current wave in global organization design avoids the simplistic dichotomies of central versus decentral management structures. Today's successful global organization must be simultaneously built to be global and local (Kesler and Kates, 2016).

Scale: The Benefits of Thinking Big

There is a simple reality in micro-economics that eventually comes to bear on even the smallest and most innovative start-up. As entities grow, economies of scale can provide competitive advantages by reducing per-unit costs. While some companies foolishly over-prioritize these benefits, as is often apparent in the merger of two companies that otherwise gain no real synergies, scale does often matter. In cost-focused organization designs, consolidating operations plays out in many familiar ways, notably, production and supply chain collaboration, promotion and costs of selling, administrative headquarters efficiency, and the like. Even in services and software, where the product is exponentially scalable without further capital investment, scale of specialization of talent or user networks quickly becomes a differentiator.

But there are innovational and growth-oriented benefits of scale and integration as well. VF Corporation is a global apparel company with familiar brands such as Timberland, Vans, and The North Face. CEO Steve Rendle had watched as each region in the world created its own marketing stories, developed its own products, and created its own retail experience for consumers for many of the brands. At the same time, it was apparent that VF's quirky but powerful Vans footwear and apparel brand worked in a much more transnational manner, and with a much greater growth trajectory. Its SoCal skateboarding culture had transplanted to China surprisingly well.

When brand stories and ethos (what the brand stands for) can be harmonized across geographies and cultures, the result is a more powerful "customer promise" that can command greater sales, higher prices, and loyalty. Global brands enable more globally consistent product, which can deliver enormous productivity gains across the value stream. Apple and Nike are clear cases in point. This kind of scale is less about cost reduction and more about value creation.

In VF Corporation, the global Vans organization had already moved to a more global organization model than the other big brands, and it served as a model for the future of the larger company. Vans had managed to build a very tight global community. The collaborative processes and forums already at work inside this trendy brand served as inspiration for realigning the other brand and regional commercial units across VF. Investments in product and brand innovation became more transnational, focused on fewer, bigger ideas.

Scale is created by bringing the best of what the tower has to offer in terms of connections across boundaries with a holistic view of the broader enterprise. When leaders use the words integration, whole, global, leveraged, center-led, and power-of-one in their strategies, then one can safely predict they will be followed by organization changes designed to gain the benefits of scale.

Agility: The Benefits of Acting Small

Agility is a much more challenging concept, and a term that is used in so many contexts in business today that it almost has no meaning. Agile methodology, originally focused on software product development, is a well-defined specific discipline and set of practices for managing complex programs that rely on small teams, led by product managers who connect the work of the development team to the user, translating requirements into technical specifications and project plans. It features short bursts of iteration with quick releases of product and immediate feedback. Teams are empowered to set their own schedules within broad frameworks. At its essence, Agile is a disciplined and rigorous way to run cross-functional work teams. The prevalence of technology companies and the need for almost every company to develop some software internally has spread Agile, and related practices, widely. At Siemens, Netflix, Amazon and others, Agile teams have long been incorporated into the way they define the customer experience, and approaches to developing new products. PepsiCo and other more conventional companies are actively experimenting with functional teams attempting to use Agile to innovate human resources and other management practices.

Increasingly, companies are seeking to scale Agile teams across the entire organization. Some have argued for a clear distinction between scaling the model by adding hundreds of agile teams, versus clean-sheet design for an "agile organization" (Rigby *et al*, 2020) This is an important principle that challenges us to think about the core operating model of the company with a clear definition of the *problem we are trying to solve*, rather than chasing shiny objects.

Some companies are realigning their corporate operating models by adopting an Agile-scaling framework, selected from among a number of emerging models. These frameworks have been branded, to a degree, by zealots who espouse their benefits, and there is no research or even expansive reporting that argues one is better than the other. Companies like ING and Bosch in Europe, Haier in China, and Home Depot in the US have famously built on the organizational thinking pioneered at Spotify that connects scores or even hundreds of agile teams into networks and teams of teams, and rethinks the roles of the top leadership teams to incorporate agile thinking into their operating models.

To be sure, large companies with multi-dimensional strategies and lines of business will not find that adopting Agile team methods always makes the organization more effective. When you have multiple products delivered to serve multiple client segments around the world, you need to find a way to both leverage your resources and move fast. Organizational agility means being able to easily form a team-of-teams across a global network. This agility only comes through the thoughtful design of vertical, as well as horizontal structures, governance forums and practices, and clear decision rights. The ability to set and communicate *strategy* (choosing what to do and not do) and *priorities* (setting a sequence of activity) requires a high degree of coordination across leadership. It is a team process, but one that must be held at the senior levels.

We are encouraged by the level of experimentation, but believe design should not follow fashion, and clear definition of a given company's design purpose is critical. (Spotify leadership have long argued that other companies should not attempt to copy their model.) We hope to contribute to the conversation with this book, although Agile itself is not our focus.

Most conflicts in the organization design process arise from differences in perspective. When any business or organization challenge is examined from the perspective of an operating unit leader, that leader will often emphasis the need for more differentiation and focus. A typical response is, "If you want me to succeed, give me control over the resources and decisions that will allow me to move fast and autonomously."

But, viewed from the perspective of the enterprise, organizing around several autonomous geographic or product-oriented profit and loss centers often creates predictable barriers to enterprise agility (Sull, 2009). These units tend to produce smaller innovations that, taken together, do not really move the meter for the company as a whole. In the case of a $20 billion provider of renal-patient care that is trying to bring an integrated, value-based solution to the market, its separate business units focused on equipment sales, dialysis centers, and disposable devices, all represent a set of silos that the sales team must battle every time they attempt to negotiate a contract for an integrated offering for a health care provider or payer. Examples abound of the crippling effects of "agile business units" that cannot work together to deliver a complete customer experience at the enterprise level. Agile teams can be embedded in the organization, but if the operating model, its management processes, and its technology backbone do not create an agile environment, empowered teams on their own are not likely to add up to an agile organization.

When leaders use the word "agile" it is often code for separate, differentiated, focused, autonomous, local, or decentralized. One must confirm if the goal is speed and responsive at an operating unit level or at an enterprise level.

Networked, Scaled, and Agile

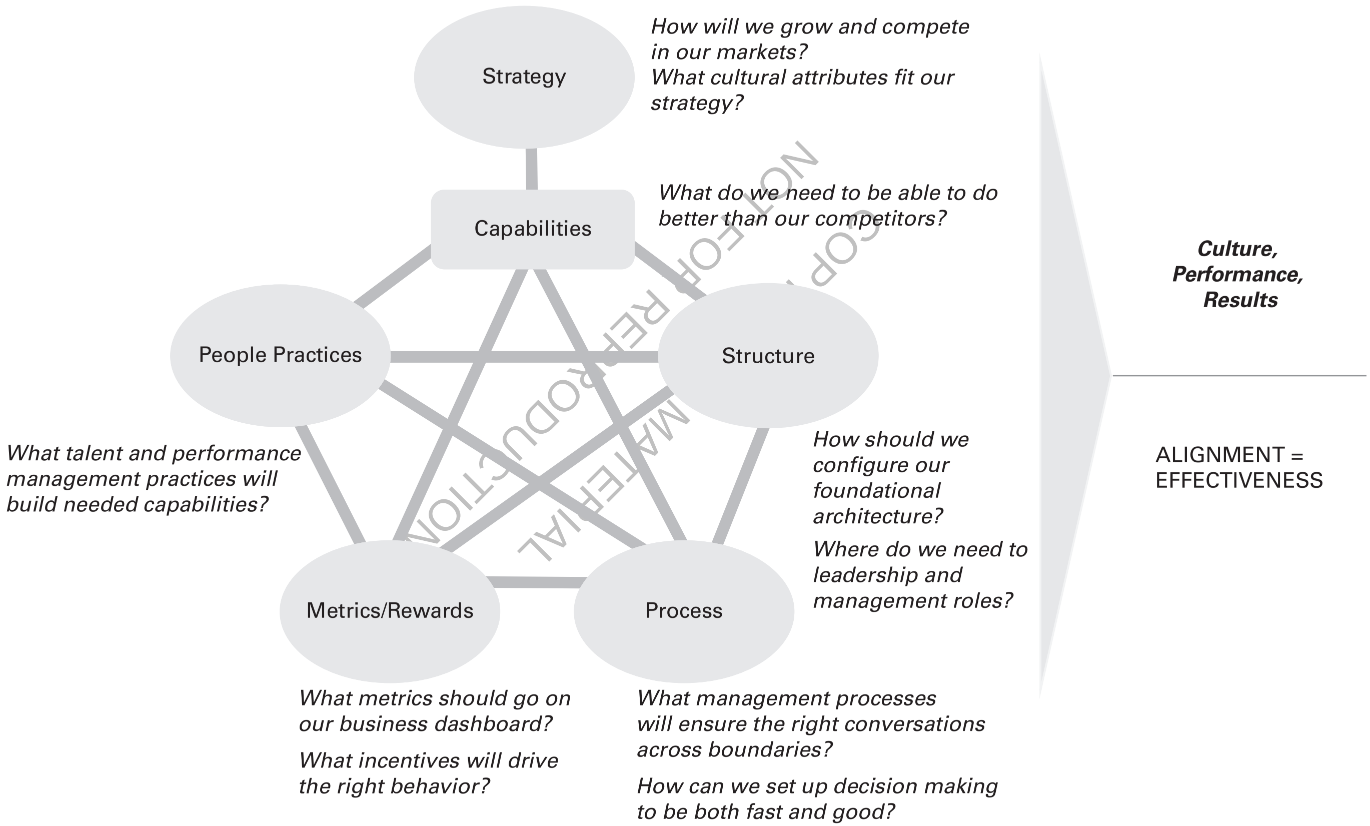
Our clients know that it is not an option to choose between agility and scale. CEOs want to know how to:

- move fast in the market while leveraging corporate assets
- run a global brand while delivering it with local relevance
- build common platforms while accommodating regulatory and technology differences across geographic boundaries.

Once the right balance is found between differentiation and integration, then linking the parts through structured, well-designed networks becomes the way to move assets, ideas, and talent across borders and boundaries. The only way to design an organization that can uniquely gain the benefits of all the tensions in a strategy is through a systemic approach. Jay Galbraith's Star Model (Figure 1.2) remains the best way to shape human behavior at the organizational level.

The Star Model gives us the levers to adjust when creating a system of organization behavior and business outcomes. But it does not tell us how to make the trade-offs between options for a given strategy. The remainder of this book provides the frameworks and tools for making decisions that will create the right mix of networked, scaled, and agile for your organization.

Figure 1.2 The Star Model



SOURCE Galbraith (1995)

Key Takeaways

- Organizations reflect the tensions that have characterized human history for hundreds of years between vertical power (tower) and horizontal power (square).
- Purposeful organization design creates the right balance between local and enterprise agility, autonomy and scale, global and local perspectives, core business profitability and start-up energy, and speed and leverage that is right for the company's strategy and context.
- It is possible to get the benefits of scale and agility using structured networks and a Star Model based system design approach.

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