The Use of Design in Business Strategy: What's Beneath the Surface?

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Design knowledge has proven to be useful in areas as diverse as engineering, medicine, and communications. The reason is that design can be conceived as an assessment of "how things could be," which reveals its innate tendency to focus on the future while seeking to put systems, products, and services into a prospective context.[1] The same is true for business strategy. The basic function of strategy is to focus on the future while continuously identifying the actions necessary for firms to create and appropriate economic rents. For exactly this reason, strategy scholars have sought design inspiration in recent years. Attempts to bring these two fields closer together have occurred on two fronts. On the one hand, management research has emphasized the role of design in organizations.[2] On the other hand, business schools have increasingly incorporated innovation and design programs into their curricula.

Despite these efforts, our understanding of the relationship between the two disciplines remains superficial.[3] For a growing number of managers, a good strategy is supposedly one that is designed by heterogeneous groups, preferably in a studio, and one that manifests itself through a creative flash that can only be expressed in colorful sticky notes. The most relevant conclusion so far is that design plays a relevant role in building "more meaningful strategies." What does this assertion mean, exactly? The risk we face today is that enthusiasm for thinking about design issues becomes trivialized, thus losing its meaning.[4] The discomfort with this risk stems from the fact that relevant dimensions of design seem to be deliberately set aside to make the practice of design more acceptable to managers.[5]

What the debate lacks is a deeper understanding of how design and strategy can be effectively connected beyond the usual claim that design thinking is a key component of innovation in business. Starting from this fundamental question of their connection, I sketch in this article the broad contours of a more theoretically grounded dialogue between the fields of design and

1 Hebert Simon, *The Sciences of the Artificial* (Cambridge, MA: MIT Press, 1969).

2 See, e.g., Tim Brown, "Design Thinking," *Harvard Business Review* 86 (2008): 84–92; Beatrice D'Ippolito, "The Importance of Design for Firms' Competitiveness: A Review of the Literature," *Technovation* 34 (2014): 716–30, https://doi.org/http://dx.doi.org/10.1016/j.technovation.2014.01.007; Heather M. A. Fraser, "The Practice of Breakthrough Strategies by Design," *Journal of Business Strategy* 28, no. 4 (July 10, 2007): 66–74, https://doi.org/10.1108/02756660710760962; Vern L. Glaser, "Design Performances: How Organizations Inscribe Artifacts to Change Routines," *Academy of Management Journal* 60, no. 6 (2017): 2126–54; Roger Martin, "Design and Business: Why Can't We Be Friends?," *Journal of Business Strategy* 28, no. 4 (July 10, 2007): 6–12, https://doi.org/10.1108/02756660710760890; and Eric M. Olson, et al., "Design Strategy and Competitive Advantage," *Business Horizons* 41, no. 2 (March 1998): 55–61, https://doi.org/10.1016/S0007-6813(98)90035-0.

3 Ulla Johansson-Sköldberg et al., "Design Thinking: Past, Present and Possible Futures," *Creativity and Innovation Management* 22, no. 2 (June 2013): 121–46, https://doi.org/10.1111/caim.12023.

4 Lucy Kimbell, "Rethinking Design Thinking: Part I," *Design and Culture* 3, no. 3 (2011): 285–306, https://doi.org/10.2752/175470811X13071166525216.

5 Cameron Tonkinwise, "A Taste for Practices: Unrepressing Style in Design Thinking," *Design Studies* 32, no. 6 (2011): 533–45, https://doi.org/10.1016/j.destud.2011.07.001.

https://doi.org/10.1162/desi_a_00649

strategy. My intention is neither to be exhaustive in my investigation, nor to present a complete theory. Instead, my goal is to point out a more consistent path for discussion, thus opening up new possibilities for conversation. Specifically, this article highlights the examination of strategy problems as design problems, the role of paradoxes in strategy thinking, and the nature of design as a strategic meta-capability.

The Current Conversation Between Strategy and Design

The investigation of the relationship between design and business has been very fruitful in the past few years.[6] Studies linked to this tradition vary widely in terms of methodological perspectives and objects of study. For example, some authors have turned their attention to designers and the design process, trying to identify what is called a design attitude[7]; others have examined the specific patterns of human interactions within design firms or between design firms and other organizations.[8] Another relevant strand of research has examined design as an organizational resource capable of influencing the performance of firms.[9]

Specifically, design activities are said to influence management and strategy in four main areas.[10] The first recognizes the ability of design to leverage the firm's positioning by shaping customer perceptions and experiences—either directly through products and services or indirectly through corporate image and brand activities.[11] Second, design enables integration and mediation between professional domains.[12] According to this reasoning, the design of artifacts, experiences, and environments allows employees, partners, rivals, and customers to be introduced to a company's strategy.[13] Third, design serves to shape corporate culture and improve knowledge management within firms by means of communication design and graphic design.[14] Fourth, design activities at the leadership level help to build a holistic view of complex systems and to create a shared strategic vision. This fourth aspect is the one that I explore more closely in this article.

Interestingly, the term "design strategy" does not have a unique understanding in the literature.[15] In some cases, the term refers to long-term planning that focuses primarily on a company's brand and product attributes.[16] In other cases, "design strategy" is used generically as a reference to the potential of creativity when applied in strategic formulation.[17] However, even with this perspective, identifying different characterizations is possible: Design can be examined as a method to be coupled with the usual strategic management processes[18]; or it can be seen as a general way of thinking, such that design becomes a metaphor for the elaboration of the strategy—the so-called design thinking approach.[19]

6 For a review, see D'Ippolito, "The Importance of Design for Firms' Competitiveness: A Review of the Literature."

7 See, e.g., Davide Ravasi and Ileana Stigliani, "Product Design: A Review and Research Agenda for Management Studies," *International Journal of Management Reviews* 14, no. 4 (2012): 464–88, https://doi.org/10.1111/j.1468-2370.2012.00330.x; and Kamil Michlewski, "Uncovering Design Attitude: Inside the Culture of Designers," *Organization Studies* 29, no. 3 (2008): 373–92, https://doi.org/10.1177/0170840607088019.

8 See, e.g., Ileana Stigliani and Davide Ravasi, "Organizing Thoughts and Connecting Brains: Material Practices and the Transition from Individual to Group-Level Prospective Sensemaking," *Academy of Management Journal* 55, no. 5 (October 2012): 1232–59, https://doi.org/10.5465/amj.2010.0890; and Birgit Helene Jevnaker, "Vita Activa: On Relationships Between Design(ers) and Business," *Design Issues* 21, no. 3 (Summer 2005): 25–48, https://doi.org/10.1162/0747936054406753.

9 See, e.g., Micki Eisenman, "Understanding Aesthetic Innovation in the Context of Technological Evolution," *Academy of Management Review* 38, no. 3 (July 2013): 332–51, https://doi.org/10.5465/amr.2011.0262; Marc Gruber et al., "Managing by Design," *Academy of Management Journal* 58, no. 1 (2015): 1–7; Philip Kotler and Alexander G. Rath, "Design: A Powerful but Negleted Strategic Tool," *Journal of Business Strategy* 5, no. 2 (March 1984): 16–21, https://doi.org/10.1108/eb039054; James Moultrie and Finbarr Livesey, "Measuring Design Investment in Firms: Conceptual Foundations and Exploratory UK Survey," *Research Policy* 43, no. 3 (2014): 570–87, https://doi.org/10.1016/j.respol.2013.08.005; and Ryan R. Rosensweig, "More than Heroics: Building Design as a Dynamic Capability," *Design Management Journal* 6, no. 1 (October 2011): 16–26, https://doi.org/10.1111/j.1948-7177.2011.00025.x.

10 John Stevens and James Moultrie, "Aligning Strategy and Design Perspectives: A Framework of Design's Strategic Contributions," *The Design Journal* 14, no. 4 (December 28, 2011): 475–500, https://doi.org/10.2752/175630611X13091688930525.

A designer's way of thinking is expressed in the strategy discourse in different ways.[20] The first form, perhaps the most popular among practitioners, is the conception of design thinking advanced by Tim Brown from IDEO.[21] The focus is on describing the circular design process and how it can help generate innovative ideas. The second form of expression is design thinking as a way to address undetermined organizational problems. This aspect is strongly identified with the writings of Roger Martin from the Rotman School of Management.[22] Martin is less concerned with design as a work process; his emphasis is on design thinking as a set of cognitive characteristics that enable managers to go beyond purely analytical reasoning. Third, some authors examine design thinking as a part of management theory. The main reference for this perspective is the book, *Managing as Design*.[23] In this edited volume, most contributions explore design situations illustrating how different theoretical frameworks are applied; yet the work does not formulate a unified theoretical body.[24]

In fact, much of the literature has a "you know a design-based strategy when you see it" flavor. Part of this lack of precision stems from the fact that the discourse on management and strategy rarely refers to the theoretical principles already developed in the design literature, thus impairing the cumulative construction of knowledge.[25] What is lacking in the debate is a deeper understanding of how design and strategy can be effectively connected. To move in this direction, I discuss in the next section the essential theoretical components of design thinking and how they can be broadly associated with strategy.

The Building Blocks of a More Meaningful Conversation

The main blocks for a more productive dialogue between strategy and design are identified below and include: the meaning of strategy, the concept of strategy problems as design problems, the role of paradoxes, and the idea of framework.

The Strategic Endeavor

Every business strategy aims to chart the path by which a firm is capable of creating and appropriating economic value. In doing this, the strategists generally encounter three materials. The first is the formal material—that is, the basic elements that are available for the development of a strategy. The second is the material given to them—namely, a situation or problem that involves a set of demands from different stakeholders. This material tends to be

11 Christopher Lorenz, "Harnessing Design as a Strategic Resource," *Long Range Planning* 27, no. 5 (October 1994): 73–84, https://doi.org/10.1016/0024-6301(94)90229-1.

12 Charles B. Stabell and Øystein D. Fjeldstad, "Configuring Value for Competitive Advantage: On Chains, Shops, and Networks," *Strategic Management Journal* 19, no. 5 (May 1998): 413–37, https://doi.org/10.1002/(SICI)1097-0266(199805)19:5<413::AID-SMJ946>3.0.CO;2-C.

13 Glaser, "Design Performances."

14 R. H. Hayes, "Design: Putting Class into 'World Class,'" *Design Management Journal* 1, no. 2 (1990): 8–14; and Olson et al., "Design Strategy and Competitive Advantage."

15 Ulises Navarro Aguiar, "Design Strategy: Towards a Post-Rational, Practice-Based Perspective," *Swedish Design Research Journal* 12 (June 28, 2016): 43–52, https://doi.org/10.3384/svid.2000-964X.14243.

16 Cai Jun, "An Evaluation of the Positional Forces Affecting Design Strategy," *Design Management Journal* 3, no. 1 (June 14, 2010): 23–29, https://doi.org/10.1111/j.1948-7177.2008.tb00003.x; and Debasish N. Mallick, "The Design Strategy Framework," *Design Management Journal (Former Series)* 11, no. 3 (June 10, 2010): 66–73, https://doi.org/10.1111/j.1948-7169.2000.tb00032.x.

17 Jeanne M. Liedtka, "In Defense of Strategy as Design," *California Management Review* 42, no. 3 (April 2000): 8–30, https://doi.org/10.2307/41166040.

18 See Ravi Chhatpar, "Analytic Enhancements to Strategic Decision-Making: From the Designer's Toolbox," *Design Management Review* 18, no. 1 (2007): 28–35; and Ron Sanchez, "Integrating Design into Strategic Management Processes," *Design Management Review* 17, no. 4 (June 10, 2010): 10–17, https://doi.org/10.1111/j.1948-7169.2006.tb00057.x.

19 Aguiar, "Design Strategy."

20 Johansson-Sköldberg et al., "Design Thinking: Past, Present and Possible Futures."

21 See Brown, "Design Thinking"; and Tim Brown, *Change By Design: How Design Thinking Transforms Organizations and Inspires Innovation* (New York, NY: HarperCollins, 2009).

insufficient or vague, so that recreating or reconfiguring the problem is up to the strategists. The third is the psychological material, which comprises the perceptions, emotions, and reactions of the individuals involved in the formulation and implementation of the strategy.

Further, the formal material of the strategy is composed of three elements: the firm's market positioning, the firm's organizational resources, and the firm's governance structures. These elements are equivalent to designers' use of contrast, proportion, shapes and colors.[26] To illustrate, just as graphic designers must think about a problem situation and select a shape that harmonizes with a certain color palette, firms must choose a market positioning that finds support in the business model or a governance mechanism that allows resources to be put to their best possible use. The design of the strategy, then, is the configuration of these elements, their influences and developments, and this configuration is specific to each firm at each moment in time.

Problems

Design problems often are characterized as wicked problems.[27] Wicked problems tend to be poorly formulated, feature ambiguous information, and involve many clients and decision makers who most often have conflicting interests.[28] This characterization represents one of the central elements that brings strategy and design closer together. The conditions of "being poorly formulated," "featuring ambiguous information," and "involving many stakeholders" apply equally to most problems that firms face.[29]

Despite that, many design (strategy) projects encompass problem-solving steps that are logical and predictable.[30] These steps arise in situations in which designers already know the value to be expressed in the designed product (i.e., object, service, or system), as well as the working principle that connects this thing or product to be created with the thing's value. What is missing is the thing itself. From a strategic perspective, this kind of "closed problem" is one that many companies face daily. It arises every time a firm is comfortable with its value proposition, its competitive positioning, and its business model. If nothing is wrong with these components, the "working principle" by which the firm creates value is in full operation. In this context, a problem may arise when, for example, a key supplier fails to deliver an input or a competitor hires the top researchers who make up the firm's R&D team. Such problems are strategic because they involve the real risk that the firm's ability to create value is shattered, at least in the short term.

22 See Martin, "Design and Business"; Roger Martin, *The Opposable Mind: How Successful Leaders Win Through Integrative Thinking* (Boston, MA: Harvard Business School Press, 2007); and Roger Martin, *The Design of Business: Why Design Thinking Is the Next Competitive Advantage* (Boston, MA: Harvard Business School Press, 2009).

23 Richard Boland and Fred Collopy, eds., *Managing as Design* (Stanford, CA: Stanford University Press, 2004).

24 Johansson-Sköldberg et al., "Design Thinking,": 129.

25 Ibid.: 121.

26 Paul Rand, *Thoughts on Design*, 4th ed. (San Francisco: Chronicle Books, 1947).

27 Richard Buchanan, "Wicked Problems in Design Thinking," *Design Issues* 8, no. 2 (Spring 1992): 5–21, https://doi.org/10.2307/1511637. See also Horst W. J. Rittel and Melvin M. Webber, "Dilemmas in a General Theory of Planning," *Policy Sciences* 4, no. 2 (June 1973): 155–69, https://doi.org/10.1007/BF01405730.

28 C. West Churchman, "Wicked Problems," *Management Science* 14, no. 4 (1967): 141–46.

29 John C. Camillus, "Strategy as a Wicked Problem," *Harvard Business Review* 86, no. 5 (2008): 98–101.

30 Kees Dorst, "The Core of 'Design Thinking' and Its Application," *Design Studies* 32, no. 6 (2011): 521–32, https://doi.org/10.1016/j.destud.2011.07.006.

The most relevant problems in the context of a design/strategy analysis, however, are the wicked problems, which result from breaks in logical and routine circumstances.[31] In this case, the current working principle no longer works. Schön calls these kinds of breaks "surprises"—that is, breaking points in designers' reflective conversation with the situation.[32] With these so-called "ill-defined problems," the circumstances become complex and uncertain, and articulating the problem itself becomes a problem.[33] For instance, consider the issue of modern urban mobility, with the emergence of self-guided cars and electric vehicles. Car manufacturers, like all other parties involved, currently face high uncertainty. This issue is both a design problem and a strategy problem. How the technology will evolve in the near future is not yet known; we only know that human mobility in urban spaces will change. Therefore, we can suppose that automakers' business model will change as well. How will it change? Nobody knows the answer with certainty; instead, the business model will be the product of strategic ideas' being formulated and tested.

Creativity, which is a key component of great strategies, manifests itself at exactly these moments of surprise.[34] Creative design involves an iterative process of analysis and refinement, in which problem formulation and idea generation occur simultaneously and in circular stages.[35] The most interesting consequence within this process is that a real, stable design problem, as such, is not there to be addressed. What exists instead is an unstable process of formulating problems and generating ideas for solutions.[36] This lacuna is a challenge—and a torment—for the rational mind of most strategists. From a design point of view, there is no specific strategy problem to be solved when dealing with market transformation situations. Strategists instead must enter a circular process of prototyping that involves a coevolution of both the strategy problem and the solution and movement toward a satisfactory outcome.

Paradoxes

Ill-defined problems are so complicated because designers (strategists) know only the projected value; they do not know the thing to be created, nor the working principle that connects the thing with the value. This type of problem situation arises only when those involved in the design do not know *what to do* and *how to do it*. This situation is so disturbing because it involves a paradox. A design (strategy) paradox is a complex issue involving two or more conflicting arguments. In the initial stage of the paradox, the arguments that engender it are true or valid, but they cannot be combined.[37] In the case of strategy, consider the issue of

31 It is also interesting to examine the concept of open problems as opposed to the notion of closed problems. See, for example, Hubert L. Dreyfus "Intelligence Without Representation – Merleau-Ponty's Critique of Mental Representation," *Phenomenology and the Cognitive Sciences* 1, no. 4 (2002): 367–83, https://doi.org/10.1023/A:1021351606209.

32 Donald. A. Schön, *The Reflective Practitioner: How Professionals Think in Action* (New York: Basic Books, 1983).

33 Kees Dorst, "The Problem of Design Problems," in *Expertise in Design*, ed. Nigel Cross and Ernest Edmonds (Sydney: Creativity and Cognition Studio Press, 2003), 135–47.

34 Adam Brandenburger, "Where Do Great Strategies Really Come From?," *Strategy Science* 2, no. 4 (December 2017): 220–25, https://doi.org/10.1287/stsc.2017.0039.

35 Kees Dorst and Nigel Cross, "Creativity in the Design Process: Co-Evolution of Problem–Solution," *Design Studies* 22, no. 5 (2001): 425–37, https://doi.org/10.1016/S0142-694X(01)00009-6.

36 Dorst, "The Core of 'Design Thinking.'"

37 Kees Dorst, "Design Problems and Design Paradoxes," *Design Issues* 22, no. 3 (Summer 2006): 4–17.

urban mobility from the perspective of an automaker: "A great 'automotive paradox'—where more travel via car than ever, but fewer cars will be needed by individuals—will be a defining quality of the new automotive future."[38] Increasingly, consumers living in large urban centers will not want to buy a car but will expect it to be available through, for example, a sharing economy.

The paradox plays a central role in design thinking and strategic thinking because it is the trigger for action. Because the paradox carries with it a contradiction, it is the starting point for redefining the problem situation to move toward a solution. Paradox thus brings us to the key concept of framework.

Framework

Designers develop the framing of a problem when they create a new point of view through which the situation can be assessed. The most logical way to structure this type of reasoning is to work recursively[39] and to start with the only known element: the value that is intended to be created. Designers use their perception of the problem situation to support the formulation of a *tentative working principle* for creating this value. The working principle is the first element of the design framework. The *central thesis* is the second element. Fundamentally, if designers analyze the problem based on their perception of the situation and their tentative working principle, and from this interaction they construct their central thesis, then the central thesis conveys how the desired value might be created.

From a managerial point of view, the concept of this design framework can be linked to the idea of strategy itself. This interpretation echoes the understanding of strategy articulated by Jay Barney, who claims that "a firm's strategy is its *theory* of how to achieve high levels of performance in the markets and industries within which it is operating."[40] I interpret Barney's use of "theory" here as the framework just described: a tentative working principle in combination with a central thesis, which indicates how the firm intends to create and appropriate value, thus achieving high levels of performance.

Strategy as Design

Based on the above description, the starting point of designing a strategy is to become aware of the central strategic paradox in which the company is involved. Because paradoxes are by their nature complex, the firm cannot assess it directly. What the firm must do, then, is investigate the themes within the paradox. There are countless management tools to assist in the task of identifying "relevant themes." For example, PESTLE analysis is a

38 David Welch and Joe Ryan, "Ride-Hailing Boom Will Mean Decades of Slow Growth for Carmakers," Bloomberg, 2017, https://www.bloomberg.com/news/articles/2017-11-14/ride-hailing-boom-will-mean-decades-of-slow-growth-for-carmakers (accessed on December 2, 2019).

39 Dorst, "The Core of 'Design Thinking.'"

40 Jay B. Barney, *Gaining and Sustaining Competitive Advantage*, 2nd ed. (Upper Saddle River, NJ: Pearson Prentice Hall, 1997), 4.

tool that companies and entrepreneurs use to map the environment in which they are operating or planning to operate. The word is an acronym for political, economic, social, technological, legal, and environmental factors. The PESTLE analysis was formulated to help an organization recognize the opportunities and challenges associated with conditions in the business environment. As a result, it allows for better organizational planning, especially when used in combination with other techniques. PESTLE does offer a simple, intuitive way to structure planning, but it also presents a risk when managers view it as a mere checklist. The problem here is not the tool but its users. Designers faced with a complex problem situation cannot simply pull out a list of items to consider and check off. They investigate the problem, talk to the parties involved, and look at the situation in different ways and at different times. From this intimate contact with the paradox, designers take note of the themes that come up spontaneously and then work on a framework. If a firm wants to build a strategy truly founded on design, it should follow a similar path.

After the firm has identified the themes, it formulates a strategic framework. First, it defines a tentative working principle—that is, a set of assumptions based on its observation of the problem situation. Second, grounded on these assumptions, the firm defines a central thesis: a causal relationship linking a specific combination of strategy components with its potential generation of economic rents. Third, the firm starts the circular process by which the strategic framework evolves through the firm's testing, learning, adaptation, retesting, and so on. As Fraser notes, "what is critical is to identify what will strategically drive the success of the solution, prioritize which activities an organization must undertake to deliver those strategies, define the relationship of those parts strategically, operationally and economically, and determine what net impact the new [business] model will have."[41]

Two Principles

The mere existence of a design framework for strategy does not mean that the company is destined for success. A framework will never be a guarantee for creating and appropriating superior rents—although its absence can be a serious problem. To be strategically relevant, a framework must meet two general principles.[42] The first principle is associated with internal consistency. The framework must enable a coherent articulation of the formal elements of the strategy: market positioning, organizational resources, and governance structures. The most common way to respond to a lack of internal consistency is to blame top management. Shareholders, investors, and even employees are generally

41 Fraser, "The Practice of Breakthrough Strategies by Design," 17.

42 Ron Sanchez and Aime Heene, *The New Strategic Management: Organization, Competition, and Competence* (New York, NY: John Wiley & Sons, 2004).

quick to criticize the "ineptitude" and "myopia" of the CEO and other board members. Although this criticism may not be entirely misplaced, it generally ignores the complex dynamics that characterize the strategic framework. Because the basic components of the strategy can be influenced by different external forces, maintaining the internal consistency of the framework is an ongoing exercise that requires attention. For example, competitors can influence a firm's positioning and internal management. In fact, a move by an incumbent—say, when starting a price war—affects the firm's strategic framework, as does the threat of entry by a new competitor. Suppliers also can affect a firm's management of its resource base and transactions. Managing external suppliers is different in nature from managing internal consistency, but the effects of internal actions cross these boundaries. For example, imagine a situation in which the marketing team launches a new media campaign that is inconsistent with the strategic framework and negatively affects consumers' perceptions. This internal inconsistency can weaken the company's positioning and negatively affect relationships with key suppliers. From a design perspective, the challenge is to rebalance the internal elements of the framework—the firm's market positioning, organizational resources, and governance structures—so that these formal elements of the strategy remain logically consistent.

The second principle refers to external consistency. The strategic framework must be connected to the market and provide a clear, plausible rationale for value creation. This principle encompasses, but should not be confused with, the design idea of *user centrality*. For a firm to generate economic value, it clearly must deliver to consumers a value proposition that connects with their desires and aspirations. The firm generates value precisely by meeting (or creating) a consumer need—which presupposes placing consumers (or users) at the center of the creative process. However, value creation also must be plausible in the economic sense, including the market structure within which the firm operates. Entrepreneurs or managers who believe that consumers will spontaneously form a queue at the door of the company once they have produced a good or service generally fail because they disregard the external consistency of their strategic framework.

Design as a Strategic Meta-Capability

Although the principles of internal and external consistency can bring strategic relevance to the framework, they are only a necessary and not a sufficient condition to sustain a company's competitive advantage. The advantage is temporary if the framework can be imitated—that is, if rivals are able to mimic both the way

the firm positions itself in the market and its business model. This discussion is central to strategy. Harvard Business School professor Michael Porter emphasizes the relevance of barriers to entry, which can prevent competitors from threatening a firm's position.[43] Jay Barney, another influential author, notes that a firm is able to sustain its competitive advantage when it grounds its business model on resources that are not only valuable but also rare and difficult to imitate.[44] Interestingly, the same line of reasoning can be used to argue that strategy design is, in itself, a valuable resource. More specifically, strategy design is a type of organizational competence focused on the internal and external alignment of the formal components of strategy. What remains, then, is simply to understand the conditions under which design can be rare and difficult to imitate.

As intuitive as this perspective might seem, it brings some difficulties. The issue is proportionality. Saying that strategy design (i.e., the building of a strategic framework) is an organizational competence that comprises the firm's bundle of resources is like saying, with William Blake, that a world is contained in a grain of sand. Design, defined here as a "world," organizes the components of the strategy to create a coherent framework that simultaneously describes and guides strategic action. However, that design also is an organizational competence—that is, a set of processes and activities that allow a company to produce a certain result—is difficult to reject.

What seems to be a more coherent approach is to think of strategy design as a *meta-capability*.[45] It is a meta-capability, or a higher order competence, because it represents a set of skills and knowledge that underlies the process of building new competences. A firm's knowing how to position itself profitably in a given market, being able to manage the resource base efficiently, and establishing superior governance mechanisms are examples of different organizational competencies. Building these competencies is a meta-capability, and strategy design makes this higher order competence possible.

Meta-capability can be described in terms of four organizational skills: learning continuously, establishing collaboration between different groups, redesigning processes, and facilitating strategic conversations.[46] The presence of these skills within an organization enables the creation of new competences. And these skills are exactly what design promotes. Faced with an ill-defined problem, the firm embarks on an iterative process of analysis,

43 Michael E. Porter, *Competitive Advantage: Creating and Sustaining Superior Performance* (New York: The Free Press, 1985).

44 Jay B. Barney, "Firm Resources and Sustained Competitive Advantage," *Journal of Management* 17, no. 1 (1991): 99–120.

45 For definitions of meta-capability see Jeanne M. Liedtka and John W. Rosenblum, "Shaping Conversations: Making Strategy, Managing Change," *California Management Review* 39, no. 1 (1996): 141–57; Jeanne M. Liedtka, "Collaborating Across Lines of Business for Competitive Advantage," *The Academy of Management Executive* 10, no. 2 (1996): 20–37; and David J. Collis, "Research Note: How Valuable Are Organizational Capabilities?," *Strategic Management Journal* 15, no. S1 (1994): 143–52, https://doi.org/10.1002/smj.4250150910.

46 Liedtka and Rosenblum, "Shaping Conversations."

which involves learning throughout each "round" and collaborating among the parties involved. In the end, the proposed solution very likely involves a change in the way the processes are carried out, leading to an adjustment in the business model and a change in the firm's positioning. This change is achieved using a framework that can take the form of a simplified representation, the function of which is to create an understanding (i.e., a conversation) among the involved parties.

Because firms differ in their ability to interpret a problem situation and formulate a framework, we expect to see design differences between their strategies.[47] More importantly, a firm creates and appropriates more value relative to its rivals by defining a superior design framework in the face of a given problem situation. Put differently, firms with superior design capabilities have an advantage over their rivals. In addition, if this meta-capability is rare and difficult to imitate, there is the possibility of sustaining a competitive advantage.

The New Possibilities

When strategy scholars teach business strategy to their students or discuss strategy with executives and entrepreneurs, they naturally tend to adopt a general discourse. They usually talk about the industry in which the firm operates and then speak about its internal resources[48]; they add some occasional comments on how the transactions of the company should be governed. Although this versatility might sound natural in the corridors of large and small businesses, strategy scholars may find themselves in the middle of a set of strategy components without ever questioning how it is articulated at a deeper level. My argument is that design can help in this context, contributing to a more integrated view of strategy.

A design-based view of strategy is especially suitable for dealing with ill-defined, complex problems—that is, problems that require firms to rethink their positioning or business model. The first step for companies is to assess the central paradox that might influence their ability to generate value. They do so by investigating the themes surrounding the paradox, thus analyzing and engaging with the problem situation, rather than looking at the issue with a preconceived or biased view. An intimate understanding of the problem allows firms to formulate a first outline of their strategic framework. The framework includes a tentative working principle and a central thesis that connects a specific combination of strategy components with the potential generation of economic rents. The second step is to enter a circular or iterative learning

47 Thomas C. Powell et al., "Causal Ambiguity, Management Perception, and Firm Performance," *Academy of Management Review* 31, no. 1 (January 1, 2006): 175–96, https://doi.org/10.5465/AMR.2006.19379630.

48 Jay B. Barney and Alison Mackey, "Monopoly Profits, Efficiency Profits, and Teaching Strategic Management," *Academy of Management Learning & Education* 17, no. 3 (September 2018): 359–73, https://doi.org/10.5465/amle.2017.0171.

process in which the problem, the solution, and the framework coevolve. Accordingly, examining strategy as design allows for a less rigid, more liberating look at the phenomenon of value creation and value appropriation by firms. The recursive logic of design gives firms the flexibility to adapt as their framework evolves. This kind of logic goes far beyond the "sticky notes and data walls" that have become increasingly popular with the democratization of design methods. And that new depth can be the real hidden strength of design applied to strategy.