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# Strategy from the Inside Out:

## BUILDING CAPABILITY-CREATING ORGANIZATIONS

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**E**veryone knows that popular brands and unique capabilities help sustain a company's competitive advantage. However, they cannot be built by imitation. Ingenious executives have been able to develop sustainable capabilities not by emulating others, but by using their organizational designs and processes to identify, build on, and leverage their "asymmetries"—their evolving unique experiences, contacts, or assets. These asymmetries may occur even in the simplest organizations. Unfortunately, they frequently are concealed, of little apparent use, and unconnected to value creation. Thus they require new strategy making and organizational approaches for their discovery, development, and application. Based on lessons from a two-year study of a diverse sample of companies, this article shows how managers can grow capabilities that sustain competitive advantage by constantly identifying and growing asymmetries, embedding and empowering them within an organizational design, and shaping market focus to exploit them.

For Citibank CEO John Reed, 1991 was a very tough year. Citi's stock had plummeted, in no small part because of its trouble-ridden global corporate bank. Some problems, such as non-performing Latin American loans, were shared by competitors. However, Citi was especially hobbled. Paradoxically, although it had banks in over 100 countries, many of these were weak. Local rivals with better ties to customers and government were strangling Citi's revenues and eroding its margins.

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The choices confronting Reed seemed bleak. On the one hand, he could try to strengthen Citi's presence in lucrative markets such as Germany or Japan by copying regional rivals like Deutsche Bank. He might, for example, try to build deeper relationships with local businesses. However, Citi would always be at a disadvantage vis-à-vis local rivals, who had better government and industry contacts—relationships that for historical and political reasons Citi was unlikely to duplicate. A more feasible strategy would be to offer new services and try to become more efficient. However, there was nothing to stop competitors from following suit and neutralizing Citi's efforts. Reed, like so many of today's CEOs, was facing a quandary.<sup>1</sup>

Citibank (now Citigroup) and some two dozen other firms we studied (see Appendix 1) have managed, quite craftily, to escape this predicament of how to grow sustainable capabilities. They began not by emulating best practices, but by delving constantly within themselves to discover and build on their unique, hard-to-copy assets, knowledge, relationships, and experiences. We call these emergent, potential, or hidden resources "asymmetries." Over time, the firms we studied evolved a set of explicit organizational processes and designs to find these asymmetries, turn them into capabilities, and leverage them across the appropriate market opportunities.

At Citi, John Reed realized that his extensive network of international banks could be of immense service to large multinationals (MNCs). This was no commonplace observation as the scattered network was at the time a liability in serving MNCs. Citi's local banks gave service priority to local clients, offered products unsuitable to MNCs, and did not cooperate to facilitate cross-border business. Nor were MNCs the most profitable customers. However, Reed had a three-pronged epiphany. He realized first that no rival had Citi's global reach or could attain it easily. He also saw that by redesigning his organization, processes, and performance management systems he could make the network more responsive to MNCs. Finally, he envisioned how the international bank network could be re-deployed to great advantage to serve not local firms but large clients doing extensive—and lucrative—cross-border business. In short, Reed saw how his bank was different, figured out how to make that difference an asset, and found a market that would most value that asset.

It is vital to point out that it is not only large firms such as Citi that may have potentially valuable asymmetries. The example of Shana Corp. (Sidebar 1) shows a very similar path of asymmetry identification and capability development unfolding even within a small and new firm with nowhere near the assets or relationships of a Citigroup.

The lessons from Citi and Shana are much the same: competitive advantage comes not from imitation but from using organizational processes and designs to identify emerging asymmetries and build them into capabilities. Again, asymmetries are hard-to-copy ways in which a firm differs from its rivals—ways that may ultimately bring advantage (see Sidebar 2 for the definitions of our key terms). They may consist of outputs (such as products or

## **SIDEBAR I**

### **Molehills into Mountains: The Case of Shana Corp.**

Shana Corp. is a private Canadian software company. Some of Shana's product development efforts, combined with a few technologically related contracts, had allowed the company, over several years, to develop special expertise. It acquired the capability to create sophisticated forms completion software that was compatible between two popular operating systems. This occurred, quite fortuitously, because of the kinds of jobs Shana had worked on. However, the top managers of Shana soon became quite conscious of this emerging capability. Their firm, they realized, had learned to artfully and economically do some valuable kinds of work that its competitors simply could not do as well or as fast. Also, some natural affinities began to occur among the software developers as each began to realize more fully one another's strengths and weaknesses, and each began to specialize on certain sub-routines. What had been a work group became a real team, with all of the synergies and efficiencies that entails. Soon Shana's managers began to develop training routines, work procedures, and compensation and incentive policies to further improve team performance. Shana also began to use its growing body of specialized knowledge and its effective development teams to concentrate on particular clients that required its special abilities. These were clients that used the two popular operating systems but wanted the same forms software for both. The new market focus and additional product development and marketing experience it brought sharpened Shana's expertise still further, widening the skill gap between it and its rivals. This gradual convergence of the company around its capabilities and target market helped to focus new selection and training programs, project management protocols, and marketing campaigns. These allowed Shana exploit and extend its competitive advantage.

Note that Shana did not set out to master a special capability. Nor did it perform a competitive analysis to look for promising niches. Rather, Shana's managers noticed retrospectively what their firm was unusually good at, reflected on and developed it, and pursued those clients that would most benefit from Shana's emerging talents. The firm, moreover, did not set out to emulate the competitive advantages and competencies of its most successful rivals. First, it did not have the financial or technological wherewithal to accomplish this, nor could it reasonably expect to develop it. Second, even if Shana were able to develop those competencies, by the time it did its competitors most likely would have moved ahead. Shana's managers realized that emulation would cede to rivals product and market leadership—no competitor was a sitting target. Finally, had it attempted to do what its rivals do well, Shana would have had to share a market with a host of other imitators.

solutions), relationships and alliances, systems (such as Citi's global network or contacts), processes and routines, and nascent skills and knowledge (such as Shana's)—all provided that rivals cannot imitate these within practical time and cost constraints. In fact, asymmetries, because of their subtlety or uniqueness, confer a head start and discourage imitation—and that sustains their edge.

Another advantage is their accessibility. Due to accidents of history and normal variations in the skills and experiences of organizations, many

companies will find that they possess asymmetries. While the capabilities or best practices of other enterprises may be almost impossible to duplicate, managers begin the hunt for asymmetries in their own back yard.

Unfortunately, *asymmetries are not resources or core competencies*. Like personal characteristics such as shyness or aggressiveness, they can serve as advantages or disadvantages. As with Citi's network they tend to be under-explored, under-funded, and unconnected to a firm's engine of value creation. However, where carefully fostered and directed, asymmetries may come to underlie the most important capabilities in a firm's competitive arsenal. By continually identifying and building on asymmetries, by nurturing and exploiting these within a complementary organizational design, and by leveraging them via an appropriate market focus, companies may be able to aspire realistically to attain sustainable advantage.

Paradoxically, a continual and intimate connection with the market environment is vital to this "inside-out approach." First, firms have to understand their rivals in order to know how they themselves are unique. More importantly, they need to track market reactions to discover which asymmetries are relevant. It is this ongoing ability to find the intersection between a firm's emerging asymmetries and the opportunities in the environment that is the fundamental strength of the organizations we describe here.

## **The Three Imperatives of Inside-Out Strategy**

Three imperatives are especially central to our approach. Although our presentation is necessarily linear, the process of developing inside-out strategy is emergent—full of trial and error, iteration between imperatives, and exploitation of chance.

### ***Imperative 1: Discover Asymmetries and their Potential***

To do well, firms need to develop important capabilities or resources that their rivals cannot.<sup>2</sup> As indicated, however, it is hard for them to develop these resources unless they already have some realized or potential edge. The first step is *discovering* the asymmetries that underlie that edge, as unrecognized resources or capabilities are of little advantage.

Asymmetries can arise in a number of ways. Some, such as Citi's banking network, develop as a result of the vagaries of corporate history. Others, such as long-term contracts and distinctive patents, are consciously created. In all cases, asymmetries serve as useful starting points for creating advantage precisely because they cannot be easily copied. The search for asymmetries is the search for these inimitable differences.<sup>3</sup>

The inimitability of an asymmetry may be due to legal barriers, as in the case of patents. More often, however, it is because asymmetries represent subtle and interrelated attributes and skills that have co-evolved over a significant

## **SIDEBAR 2**

### **The Terms of our Analysis**

Asymmetries are skills, knowledge, processes, relationships, properties, or outputs an organization possesses or produces that its motivated competitors are unlikely to acquire or copy in a cost or time-effective way. Typically, these do not currently produce any economic advantages but have potential to be transformed into valuable resources or capabilities.

Resources are asymmetries that currently do produce superior economic returns: examples include technical skills, patents, scarce raw materials sources, exclusive alliances, and a fine reputation.

Capabilities are more fundamental than resources—they represent abilities to create resources or to make them more valuable or sustainable. Capabilities include tacit knowledge, administrative skills, uniquely effective innovation, or operating abilities and routines.

Core Capabilities (sometimes called “core competencies”) are capabilities especially central to an organization’s competitive advantage, and can often be leveraged across different products and markets. Core capabilities are typically compound or systemic in that they comprise or orchestrate other capabilities. This endows them with greater uniqueness and inimitability.

Capability Configurations are systems of reinforcing elements incorporating core capabilities and the organizational design infrastructures in which they are embedded and that renew, adapt, and support these capabilities.

interval—as in the case of Shana. The subtle and tacit nature of these attributes, and in some cases their lack of connection to success, keeps these asymmetries beneath the radar screens of rivals (and sometimes those of the firm itself).<sup>4</sup>

Because of this subtlety, the search for asymmetries cannot be a casual process. It demands thorough and persistent inquiry across the breadth of an organization. The search must lead to an understanding of how a firm differs from its competitors in the assets it possesses, the execution processes it uses, and the combinations of these things. It should also provide insights into how these asymmetries are currently generating or may potentially generate the resources or capabilities that produce advantage. Having discovered these resources, they must be evaluated for their potential contributions to performance.

#### *Outside Search*

A good place to begin the search for internal asymmetries is to find the more obvious *external* ones—the kinds of clients and business that gravitate to a firm rather than its competitors. Managers might look for the kinds of opportunities they can capture that their competitors cannot. The types of customers and the peculiarities of their product and service demands are key clues. Asymmetries can also be spotted by asking why a company beats its rivals in capturing

a particular client or market. Answers may be found in the breadth of offerings or geographic reach, reputation with a client, or intimate market knowledge.

Learning demands action as well as reflection. In fact, one of the surest ways of revealing valuable asymmetries is to launch a set of entrepreneurial initiatives, determine which ones show promise, and then try to discover why. These can be viewed as experiments and may include broaching new kinds of customers or market segments, combining existing products with services, and altering the mix of products. Such experiments bring out new fans of the firm and make clearer *emerging* asymmetries. Shana's particular talents became clearer to its managers both as it pursued different clients and new software projects. In fact, in highly emergent contexts—in e-commerce, for example, or a newly deregulated industry—required capabilities are highly ambiguous and first mover advantages are central to ultimate success. Here firms are better off moving quickly to seize opportunities. Only after carrying out their market experiments can they determine where their advantages lie.

### *Inside Search*

Search also must take place inside a company. In many cases, the most useful asymmetries are buried deep within a firm and have to be traced back from surface abilities. Willamette Inc. is a successful medium-sized paper manufacturer. One of Willamette's apparent strengths was its ability to track the paper market by making the right grade of paper at the right time. However, the knowledge of what to make is widely available—many competitors have it. The more basic capability is an ability to convert production processes quickly and cheaply enough to take advantage of industry price changes. The reason Willamette could do this was because of its flexible equipment. The reason it had such equipment when its competitors did not was because of the experience Willamette's engineers had built up over the years converting the dilapidated plants of rivals into some of the most flexible and efficient factories in the industry. Willamette's fundamental asymmetry and its primary source of advantage was its state-of-the-art plant conversion and operating capabilities—capabilities, it turned out, that usually could not even be duplicated by the nation's top engineering consultants. It was this profound recognition of its capabilities that then allowed Willamette to allocate the human and financial resources and gear its hiring, training, promotion, and compensation approaches to support them.

Discovering asymmetries that represent *latent* resources or capabilities is particularly challenging. The case of Citigroup's global relationship banking unit was instructive because its crucial asymmetry—unrivalled geographic presence—for many years represented as much a liability as an asset. By 1980, Citi had developed a system of banks in 100 countries. Its nearest rival, Hong Kong Shanghai Bank Corp., had offices in 40 countries. However, many of Citi's banks were weak, and margins were being squeezed in developed countries by competing local banks with better ties to customers and government. Meanwhile in developing countries, market volatility and political instability were real

and costly hazards. Despite these problems, then-CEO John Reed realized that the international network could *potentially* put it in a unique position to do business with far-flung multinationals that desired further globalization. Also, it was unlikely that rivals could easily imitate this resource.

Thus, asymmetry identification can take at least two forms. The first is a re-framing insight, spotting pre-existing but unexploited assets—as at Citi. The second is evolutionary and requires managers to recognize an emerging edge, frequently in intangible assets such as knowledge, relationships, and reputation. This was the case at Shana and Willamette.

Table 1 provides suggestions on how a firm can identify its own key asymmetries and capabilities. An Assessment Audit is available from the authors to guide this process.

### ***Imperative 2: Create Capability Configurations—by Design***

Asymmetries evolve into sustainable core capabilities largely through organization design—which builds and supports capabilities by embedding them in a cohesive configuration. Design also energizes these configurations by setting up “virtuous circles” of capability enhancement.

There are two aspects to capability configurations. First, they are made up of a *cohesive combination of resources and capabilities* that is hard to imitate. Simple resources such as patents or proprietary processes can be contrasted with more complex bundles of elements such as a distribution system. Citi’s bank network, for example, encompassed a set of mutually reinforcing elements that made it easier to serve multinational clients—many banks in many countries, business and political contacts connected to and shared among the banks, and a set of common product and service standards across banks. Such resource or capability configurations tend to be far more powerful, distinctive, and tough to copy than single capabilities (see Table 2).

However, capability configurations have an even more valuable property—they are *embedded within a design infrastructure* that leverages, sustains, and develops them. At Citicorp, the international bank network at first was just a *potentially* valuable resource, not an actual one. The network only became a sustainable capability within the context of a supportive organizational design. As long as Citi was organized as a set of geographically based profit centers, local managers refused to give good service to multinationals that demanded bargain interest rates and service fees. John Reed was only able to unlock the value of the international network for multinationals through a new organization design. The design incorporated a group of very powerful key account managers and the multifunctional, multi-product teams needed to serve them. A flexible resource allocation system was set up to provide human, product, and knowledge resources to each multinational client—to serve that client in a globally coordinated and integrated way anywhere in the world, for a vast array of products and on demand. Reed reinforced the configuration with information systems

**TABLE I.** Discovering Asymmetries and Capabilities

Questions	Information Sought	Possible Data Sources
<p>What are the differences in observable outputs between a firm and its rivals: where is the firm superior? Hints from:</p> <ul style="list-style-type: none"> <li>• What kinds of customers are more apt to chose this firm than its rivals and why?</li> <li>• What do they ask from the firm—and value most from its offerings?</li> </ul>	<p>Comparison of outputs along dimensions such as design attractiveness or functionality, service, price, solutions tailoring, reputation, guarantees, and quality. Also relevant may be the scale, scope, and reach of the firm and its EDI and logistical connections to clients.</p>	<p>Market facing units or key account managers; customer reactions; and data on kinds of clients drawn to firm and their reactions to firm. Indexes of performance and quality by product, geography, and plant.</p>
<p>Which resources and capabilities appear to underlie the above sources of superiority—and where in the firm do they reside?</p> <p>Which asymmetries between a firm and its rivals ultimately can be built into sources of superiority?</p>	<p>The following resources and capabilities may be evaluated:</p> <p><b>Resources</b> may include those that are <i>property-based</i>: patents, control over unique supplies or channels, talent under long-term contract; <i>knowledge-based</i>: unique information about customers, segments, and technologies; and <i>relationship-based</i>: partnerships, alliances, reputation, and customer ties.</p> <p><b>Capabilities</b> include process and product design, product development, operations, value chain integration, all aspects of marketing and customer service, and organization design.</p>	<p>Managers in product and process development units, market and client facing units, and geographic units.</p>
<p>Which resources and capabilities would be hardest for rivals to nullify?</p>	<p>Target for analysis especially those resources and competencies identified above.</p>	<p>Market-facing managers and customers, studies of rivals' products, communications, and what is written about them.</p>
<p>Which capabilities and resources are most central now and for the future to a firm's competitive advantage?</p>	<p>Consider the degree to which each of the resources and capabilities are sustainable, drive growth and profitability, underlie other capabilities, complement other capabilities, can be enhanced and developed, and can be leveraged across a wide range of market opportunities.</p>	<p>Managers from different functions and SBUs</p>

that give all key account team members access to all client information and with a dynamic planning process that makes team members commit to specific objectives for each customer. He extracted support from local managers by having them assessed and rewarded against their ability to serve the multinationals. At Citi, then, the design of the organization was a core enabler and key component of the capability configuration (Table 3), one that dramatically enhanced its business with multinationals.

**TABLE 2.** Advantages of Capability Configurations

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1. Configurations develop powerful complementarities around core capabilities and among resources, often by using an array of design levers.
  2. Configurations embed and empower resources within a design, thereby more firmly capturing those resources, and making them more valuable to an organization than to its rivals (a condition economists call asset specificity).
  3. Configurations organize capabilities into socially complex systems that are difficult for rivals to imitate.
  4. Configurations embody virtuous cycles that enhance capabilities.
  5. Points 2 to 4 all help to turn capabilities into sustainable competitive advantages.
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The Citi case is a good example of a firm that identified a key asymmetry (the international bank system and web of connections), realized that it could be an important resource, and developed that resource into a capability configuration by embedding it in an effective organization design. Without the configuration, the bank system resource could not be exploited or leveraged. In fact, the reason so many potentially valuable resources go undetected is because they only take on value when deployed within a complementary design configuration.

*Building Molehills into Mountains: Virtuous Cycles that Enhance Capabilities*

One of the most advantageous aspects of design configurations is that they create “virtuous cycles” of capability enhancement—cycles that turn the potential of an asymmetry into a real and growing capability. Virtuous cycles are simply chains of influence in which one good outcome promotes another. Companies, for example, may possess a capability that attracts talented new employees and partners whose enlistment then augments that capability. Well-managed capabilities also raise performance, which in turn fuels them with additional resources and attention.<sup>5</sup>

The emergence of Denmark’s International Service System (ISS), illustrates the powerful role of virtuous circles in building what is now one of the largest service firms in the world. Early in its history, ISS began to accept contracts for cleaning slaughterhouses. This was a demanding task as equipment had to be disassembled for cleaning, and it was necessary to use special detergents and pressurized cleaning techniques to eradicate harmful bacteria. Also needed was expertise in testing for sterility. The experience gained with various types of clients allowed ISS to develop highly effective and efficient routines for doing the work, as well as enough financial expertise to be able to cost and price cleaning services by the machine, square meter, type of food, and so on. The proprietary technical knowledge gained in food hygiene enabled ISS to form partnerships with customers to jointly develop techniques for new products and evolving types of bacteria. This enhanced ISS’s skills still further, giving them an

**TABLE 3.** How Designs Build and Exploit Capability

<b>Design Enablers</b>	<b>Leadership/ Governance</b>	<b>Values and Culture</b>	<b>Structural Mechanisms</b>	<b>Systems and Policies</b>
<b>Embedding Capabilities within the Organization</b>	<p>Leaders create context to prioritize, fund, and build strategy around capabilities.</p> <p>TMT ensures synergy among resources and capabilities.</p> <p>TMT establishes policies to bring front and back units together to develop and adapt capabilities.</p>	<p>Corporate culture celebrates capabilities and accords prestige to units and people most central in creating those capabilities.</p> <p>Collaborative culture to bring together front and back units.</p> <p>Emphasis is on knowledge building and knowledge sharing among units.</p>	<p>Capability-based units such as task forces and cross-functional or cross-SBU teams are established to create and share knowledge.</p> <p>Multi-SBU, multi-function coordinating committees build and adapt capabilities.</p> <p>High-level management committees oversee long-term development of a specific capability.</p>	<p>Information and planning systems target and track capabilities by unit, product, and so on versus competitors.</p> <p>HR systems select, reward, and promote based on capabilities.</p> <p>Knowledge systems codify proprietary information on technologies, customers, and so on.</p>
<b>Enhancing Capabilities</b>	<p>Governance bodies describe a trajectory for core capability extension and leveraging.</p>	<p>Informal networks bring front and back units and people together to develop capabilities.</p>	<p>Multi-unit teams and strategic alliances build knowledge.</p> <p>Communities of practice grow capabilities.</p>	<p>Information systems feed learning efforts: e.g., report results according to segments and customers.</p> <p>Training programs.</p>
<b>Shaping Capabilities to Market Opportunities</b>	<p>Leaders link capabilities to target markets and define policy parameters for identification and sequencing of opportunities.</p>	<p>Entrepreneurial culture encourages managers to identify opportunities that exploit capabilities.</p>	<p>Opportunity-based units help shape capabilities to market segments.</p>	<p>HR, planning, and incentive systems create resources that can be easily leveraged across opportunities.</p> <p>Rewards based on firm-wide objectives to get front and back to collaborate.</p>

even greater competitive advantage and an expanding client base. Eventually, ISS's expertise grew to encompass related hygiene-food businesses, including poultry and fish.<sup>6</sup>

Such virtuous cycles do not happen by themselves. Design and leaders play a key role. At ISS, both executive action and the levers of design convert experience gained in a capability into policy priorities and market targets,

codified knowledge, and efficient routines—which in turn extend those capabilities. For example, ISS's leadership strives to acquire "customer density" in various segments. Scale in a segment leads not only to buying power but greater specialization, with resulting learning and customer intimacy advantages. Leaders also prioritize new opportunities that are becoming realizable because of growing skills or reputation. Information systems then build databases on costs and customers that facilitate better pricing, costing, and scheduling: this improves the capture rate of the most prized kinds of customers. Also, human resource systems codify criteria for selection and training, thereby sharpening the most important capabilities. Finally, structural mechanisms bring managers together to share knowledge across clients so that additional services can be sold to existing clients and ideas are shared around picking up additional business. Each of these design levers shapes the virtuous cycle as they help accumulate "stocks of assets" such as reputation, technical, managerial and customer knowledge, cohesive teams and team skills, and distinctive systems and infrastructures.

Virtuous cycles have a number of things in common. They engender good performance and thus create resources to plow back into capability development. They enhance reputation, which brings opportunities. They elicit positive feedback from the market that reinforces the right kinds of people, skills, and products. Design serves as a powerful governor and amplifier of these cycles in identifying and prioritizing a capability; in assembling and coordinating the resources, people, systems, and mechanisms to develop it; in disseminating the capability within the organization; and in leveraging the capability across the right market opportunities.

### ***Imperative 3: Pursue Market Opportunities that Build On and Leverage Capabilities***

The deepest capabilities and most integrated configurations are of no value unless they extract superior returns. So they have to satisfy the needs of a large enough audience who will pay amply to have that done. At the same time, emerging capabilities must be constantly unearthed and evaluated so they can be leveraged across a wider audience and set of opportunities.

A market can be looked at as a set of niches and opportunities that a firm must choose from to best leverage its capabilities. Managers must ask not only where are the opportunities, but also why should their firm be able to capture and exploit them better than potential competitors. The attractiveness of a niche must be evaluated in the context of a firm's uniqueness and the capabilities it can attain more readily than its rivals.<sup>7</sup>

It is also vital that *market niches and opportunities be related or complementary in that they benefit from the same kinds of capabilities*. This consideration guided some of our most successful firms. Citi's global corporate clients, for example, are similar in that they are large, do plenty of cross-border business, and benefit from Citi's global presence and international banking services. In fact, Citi changed its pricing strategy to attract *only* those types of clients. Without this relatedness,

Citi's capabilities would be underutilized or underdeveloped. Note that it is not similarity of outputs or industry boundaries that define complementarity: Citi's global clients were in many different industries and locations, and Citi sold lots of different products. Rather, complementarity is defined in terms of the ability of different opportunities to benefit from the same asymmetries and capabilities.

Citi also pursued complementarity among opportunities in developing multi-product international banking solutions tailored to specific industries. It created product packages or "industry templates" that would appeal to *many* clients within an industry—and thus give Citi economies of product development and market knowledge. Citi's product packages built not only on the similar needs of global clients in the same industry, but also on its banking contacts and expertise in foreign exchange, global cash management, and investment banking.

Inevitably, managers will have to shape capabilities according to such related opportunities. Recall that Citi made many changes to render its international bank network valuable to global clients—for example, abolishing regional profit centers to get local managers to serve multinationals. Citi also organized its global bank into industry groups to develop its tailored product solutions and increase market penetration. Because market focus was so clear, the bank could afford to develop industry- and client-based planning and information systems. These incorporated detailed information on *each* targeted client's potential banking business, which enabled representatives to home in on the best business opportunities and develop tailored approaches to capture that business. As the examples show, when adapting asymmetries and capabilities to market opportunities, the design configuration again plays a central role.

### *Leveraging Capabilities across New Opportunities*

Capabilities are especially valuable when they can be leveraged across a broadening set of market opportunities. Such leveraging must become a never-ending process. Here again virtuous cycles are useful. They strengthen current capabilities, but they also push asymmetries and capabilities into new areas. As learning occurs, a firm is able to employ capabilities or resources garnered in one situation to serve a different one. This can happen in several ways.

- *The same capabilities can be applied across different products and industries.* ISS leveraged its special capabilities in cleaning and sterilizing slaughterhouses to enter the hospital services field. A deep knowledge of bacteria, chemicals, sterilization, cleaning, and testing techniques allowed ISS to enter a completely different industry, with similar capability requirements.
- *Customer-related expertise and reputation developed around one output can be used to sell others to the same customer.* ISS-Mediclean used the reputation and customer-specific knowledge it garnered in cleaning a given hospital to get other types of service contracts with that same institution.

“Knowledge of a specific customer and a broader range of services gains Mediclean access to the customer’s senior management. . . . It is this access that leads to the deepening and expanding of the relationship.”<sup>8</sup>

- *Segment related expertise developed with one customer can be used with others in the same segment.* ISS leveraged its knowledge across different health care institutions based on its extensive segment-specific knowledge. The company is successful in part because it thoroughly understands the needs of the British hospital customer, and because its capabilities span a comprehensive array of hospital cleaning and facilities management services.

ISS excels at all three kinds of leverage, in part because of an organization design that encompasses entrepreneurial, opportunity-seeking leadership as well as systems that gather and disseminate information on both capabilities and market opportunities. ISS’s culture ensures that knowledge is easily shared across organizational boundaries, and its flexible administrative structure can manage capabilities and exploit new opportunities.

Ultimately, most capabilities become obsolete. Major sources of obsolescence include rival imitators eroding value, product lines reaching maturity, and major transformations in industry technology. The threat of imitation can often be countered by our virtuous cycles that build on capabilities fast enough to stay ahead of competitors. The threat of product obsolescence can be reduced by leveraging capabilities across new or related product areas. However, the only way to deal with technological or knowledge obsolescence is to continually look for *new* asymmetries that can be developed into capabilities that can be connected with a new set of opportunities.<sup>9</sup> This involves all three of our imperatives.

## Implications for Managers

In pursuing strategy from the inside out managers must learn both to pursue and trade off seeming opposites. Specifically, in discovering, building and leveraging capability they must balance reflection and action, selection and variation, resources and opportunities. Moreover, to make these tradeoffs in a quick and superior way, firms must make organizational design their source of competitive advantage. They must significantly empower their units to discover and develop the right capabilities and leverage them across the right opportunities; and they must create strong leadership and infrastructure at the center to get those units to collaborate to do this rapidly and effectively.

### *Three Tradeoffs*

#### *Balance Reflection and Action: Discovering Asymmetries and Capabilities*

Knowledge about capabilities comes in part from reflection. Managers must critically evaluate their resources and talents in looking for hidden gems—trying to determine which are the best employees, which people and units work

together best, which technologies show promise, what types of projects and products succeed, and what sorts of customers are attracted to the firm. The best outcomes of reflection are imaginative “re-framings” of the value of different resources, experiences, and relationships. At Shana, for example, they led managers to see that the really valuable capabilities were not in building forms software but in bridging operating systems.

Reflection, however, is not enough. True self-knowledge demands action and experimentation. Asymmetries and capabilities are always changing and the best way to keep track is by trying things and assessing the results. At ISS experiments might include working with different types of customers, trying a new process, or changing offerings for a new market segment. These experiments provide good information on what works—cues that then can be used to shape more focussed experiments that converge on capabilities and launch virtuous circles.

Given the job pressures, managers must put time aside to reflect on capabilities and initiate experiments. They might launch quarterly sessions with top management, venture teams, or “capability teams” to explore emerging competencies and the opportunities they bring. These discussions may work especially well when members of different business or technical units or functions get together. “Outsider” units often see creative uses for resources their counterparts deem commonplace. Gathering to address a specific market challenge or opportunity may bring some urgency to the task of surfacing capabilities.<sup>10</sup>

#### *Balance Variation and Selection: Developing and Embedding Capabilities*

Leaders must determine *which* emerging capabilities are most promising and then “select” or embed them as priorities for development. If the targeted set of capabilities is overly large or varied, resources will be too thinly spread to achieve critical mass and competitive superiority. Core or fundamental capabilities must take the lion’s share of funds, talent, and visibility—even where this hurts other activities. However, to commandeer resources from “secondary” activities, priorities must be reflected in accountabilities, performance criteria, rewards and promotions, and also in dedicated units and teams and in planning and information systems. ISS and Willamette use their planning and resource-allocation processes to drive resources towards the most promising asymmetries and capabilities. They also designate top priority capabilities and constitute teams that are appraised and rewarded according to capability development.

Variation in capabilities must also be restricted over time. Core capabilities have the highest yields when developed cumulatively over the long run and varied “around the edges.” This requires top-level, long-term resource planning, coupled with regular follow-ups to determine how to elaborate, adapt, and fund a capability. In many of our firms, multi-functional, multi-SBU units and top-management committees assured continuity in developing longstanding capabilities. At the same time, firms searched for and experimented with capability variations—emerging but related relationships, client knowledge, expertise, and

technologies. Without this exploration and “playfulness” at the edges, a capability set narrows and loses relevance.

### *Balance Capabilities and Opportunities: Leveraging Capabilities in the Market*

Managers need to find opportunities tailored to their capabilities. Opportunities also must ultimately shape capabilities. The faster these mutual adjustments occur, the more likely the virtuous circles, and the longer a firm is able to sustain competitive advantage. Of course, such speed is only possible when organizational designs and processes foster an ongoing, enriching dialogue between capability managers and opportunity managers.

### *Advantage by Design*

Different parts of the firm bring to bear different perspectives in building capabilities and making these tradeoffs. Units dealing with customers and markets (“front-end” units) look to leverage asymmetries in customer relationships, perhaps by broadening the product set. Units charged with engineering, R&D, and operations (“back-end” units) seek to leverage functional capabilities or products across different market opportunities. Both these pursuits are essential. Unfortunately, some product variations will unduly stretch capabilities, and some capabilities will not find a market. It is only by getting the front and back of an organization to work together that complementarity can be quickly realized between capabilities and market opportunities. This calls for organizational designs that not only empower front- and back-end units to develop opportunities and capabilities, but also create a strong center and infrastructure to get these units to collaborate.

### *Strong Front, Strong Back*

Back-end units must have fungible resources: flexible resources they can use to discover and develop capabilities, and ones that are free from the day-to-day pull of operations. They also require the clout to call upon resources from the front to discover the needs of customers and the strengths of the competition. Typically, this requires that some front-end resources be accountable for capability development. Front-end units also need fungible resources to identify and pursue opportunities. Moreover, they need access to resources from the back to help them adapt capabilities to the new opportunities. Back-end resources, therefore, may have to be made accountable for realizing front-end opportunities. At Citi, for example, back-end functional and product specialists were appraised according to their service to large clients.

### *Strong-Center: Leadership and Collaborative Infrastructure*

A strong center is needed to make front and back collaborate. This involves myriad organizational levers and processes (see Table 3), with strong leadership being primary. Leaders must establish objectives, policies, and even transfer prices for determining how front and back can work together. They

need to prioritize capabilities and opportunities, or at least delineate their scope. Leaders also may act as final arbiters in disputes between front and back, the way John Reed was called to do at Citi.

However, firms do even better where front and back can work together without a leader's intervention. This is more apt to happen where corporate cultures encourage collaboration, as at Willamette, or where extensive informal networks exist, as at Citi and ISS. Such cultures are fostered by strong and clear corporate values and by grapevines that widely disseminate reputational information so that managers can assemble effective teams. Other useful integrators are clear conflict resolution protocols, job rotation and training programs that reduce parochialism, and even virtual communities on the Internet.

Structural mechanisms such as multi-functional, multi-SBU task forces, standing committees, and integrative positions and roles can also bring together front and back. Finally, in all of the firms we studied, important roles were played by a variety of organizational systems and processes. Information and resource allocation systems, for example, identified the best human resources to serve capabilities and opportunities. Incentive systems rewarded organization-wide goals rather than departmental goals, and ensured that collaboration around capabilities and opportunities would be in the long-run interests of the firm.<sup>11</sup>

## **Final Words**

Well-conceived organization processes and designs can help managers constantly identify asymmetries and potential capabilities, embed these in a configuration that grows and exploits them, and leverage those capabilities across complementary sets of market opportunities. Indeed, effective design provides the vehicle for bringing together developing resources and emerging opportunities in an ongoing process that sustains advantage.

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## **APPENDIX I**

### **Description of the Research**

The research reported here is part of an 18-month study of firm strategy and design funded in part by McKinsey and Company. The research team consisted of five academics from the areas of business strategy and organization design and five McKinsey consultants (with one possessing a doctorate and two in the process of obtaining one).

Three criteria guided sample selection. First, we wanted to study firms confronting new strategic challenges or opportunities—either because of firm or industry newness or because of changes in their environments. Second, we wanted to have access to longitudinal information about the strategies and organization designs of those companies—either from extensive public records or

direct access to top management: for 75% of our sample, we had both. Third, we wanted to have diversity across the sample both in firm size, and industry uncertainty. A total of 22 firms or independent profit centers of firms were studied. These included ABB, ABB Norway, Aegon's Spaarbeleg Van Nierop unit, Amazon.com, Citigroup's Global Relationship Bank, Degussa AG, Delphi Automotive, E.I. DuPont's Advanced Fibers Division, Hewlett-Packard, IBM, IBM Europe, Intel Architecture Labs, ISS of Denmark, Johnson Controls, Lucent, Monsanto, Nokia Networks, Nokia Terminals, Proctor & Gamble, Shana Corp., Willamette, and Xerox.

The researchers employed both primary and secondary data sources. For each firm an exhaustive search of at least 5 years of newspaper, magazine, trade periodical, and book publications was conducted. The research was structured and focussed by a detailed research protocol. The research team tracked the evolution of strategic variables such as mission and goals, competitive advantages, resources, capabilities, and value chain strategy; and also of organizational and design factors such as formal and informal structure, collaborative infrastructure, social context, HR practices, and systems and processes. Performance was assessed whenever possible from financial and 10K reports. Interviews were conducted for most of the sample with upper-level managers of the firm or target unit. Detailed case studies were then written about each company or unit and its historical evolution. These cases formed the basis for our analysis.

In a series of six one- to two-day meetings that took place over several months, members of the research team gathered to identify patterns in the data. Specifically, they looked at why and how resources, capabilities, and competitive advantages emerged; what were the design levers behind (or thwarting) those capabilities; and, where possible, what were the (often qualitative) performance implications of these developments.

## Notes

1. The strategy literature of the past 20 years argues that there are two essential sources of competitive advantage—that from market position and that from core capabilities. The first school, epitomized by Michael Porter and his followers, focuses on seizing market opportunities and creating positioning advantage. See Michael Porter, *Competitive Analysis* (New York, NY: Free Press, 1980); Michael Porter, "What Is Strategy?" *Harvard Business Review*, 74/6 (November/December 1996): 61-78. Companies, for example, may differentiate themselves in the marketplace in a unique, customer-pleasing fashion. Coca-Cola, Disney, and Colgate do this with unexcelled brands; Tiffany, Virgin, and LVMH with inimitable image and style. The second school concentrates on the valuable resources needed to sustain competitive advantage. See Gary Hamel and C.K. Prahalad, *Competing for the Future* (Boston, MA: Harvard Business School Press, 1994); Jay Barney, "Firm Resources and Sustained Competitive Advantage," *Journal of Management*, 17/1 (March 1991): 99-120; David Teece, G. Pisano, and A. Shuen, "Dynamic Capabilities and Strategic Management," *Strategic Management Journal*, 18/7 (August 1997): 509-533; Birger Wernerfelt, "A Resource-Based View of the Firm," *Strategic Management Journal*, 5/2 (April/June 1984): 171-180; Danny Miller and Jamal Shamsie, "The Resource-Based View of the Firm in Two Environments," *Academy of*

*Management Journal*, 39/3 (June 1996): 519-543. At Toyota, Merck, and 3M these resources and capabilities take the form of vital patents, proprietary processes, and subtle capabilities *impossible—or illegal—for rivals to imitate*. That is what gives them their value. Both schools, full of insights as they are, fall short of telling managers *how* to develop the distinctive resources required to compete.

2. Ibid.
3. Ibid.
4. Ibid.
5. Such virtuous cycles operate both within a firm and in its relationship to the marketplace. Brian Arthur ["Competing Technologies and Lock-in by Historical Events," working paper, International Institute for Applied Systems Analysis, Laxenburg Austria, 1983] has identified a "law of increasing returns" whereby the initial popularity of a product or technology gives it an enduring edge over rival products, even if the latter are superior. Popularity is argued to create advantages that breed more popularity. The Microsoft operating system, for instance, had more adherents than competing systems, and so applications developers designed for it—making the operating system even more desirable to end-users. The related phenomenon of "path dependence" may create a similar cycle *inside* an organization. For example, an initial capability and the resources and knowledge it brings advances a company to a stage on the evolutionary path that cannot be reached by competitors with less experience. See I. Dierickx and K. Cool, "Asset Stock Accumulation and the Sustainability of Competitive Advantage," *Management Science*, 35/12 (December 1989): 1504-1513. Such capability accumulation sustains competitive advantage wherever rivals cannot skip stages or take shortcuts in developing capabilities.
6. Jay Galbraith, "ISS," case study prepared for McKinsey & Company, 2000.
7. Our bias is to view strategy from the inside out. That is, the organization must determine how it is or can be superior to its competitors; and then it needs to find a niche that will value those differences. A company may be quite adept at positioning itself according to market factors such as competitive and supply chain challenges and customer demands. However, unless this positioning involves satisfying a need or niche that exploits a firm's unique and superior capabilities, competitive advantage will not accrue; rivals would appropriate the profits.
8. Galbraith, op. cit.
9. See Danny Miller, *The Icarus Paradox* (New York, NY: HarperBusiness, 1990); Clayton Christensen, *The Innovator's Dilemma* (New York, NY: HarperBusiness, 1997).
10. For more about learning, see Peter Senge, *The Fifth Discipline* (New York, NY: Doubleday, 1990).
11. The new forms of design are described more fully in R. Eisenstat, N. Foote, J. Galbraith, and D. Miller, "Beyond the Business Unit," *McKinsey Quarterly*, 1 (January 2001): 54-63; R. Ashkenas et al., *The Boundaryless Organization* (San Francisco, CA: Jossey-Bass, 1995).

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