

# How Do Different Types of Mergers and Acquisitions Facilitate Strategic Agility?

**Nir N. Brueller**  
**Abraham Carmeli**  
**Israel Drori**

*Firms struggle to create an agile organizational system since it requires the development of three enabling capacities: to make sense quickly, make decisions nimbly, and redeploy resources rapidly. While the study of strategic agility is of growing interest as a prime means of organizational growth, the ways by which key mechanisms of growth such as mergers and acquisitions (M&As) help in building this capability remain elusive. This article highlights the differences between platform acquisitions and bolt-on acquisitions (most bolt-on acquisitions in high-technology industries can further be separated into product acquisitions on the one hand, and educational, technological and/or talent acquisitions on the other hand). These different forms of acquisitions can enhance strategic agility in distinct ways along different time horizons. When properly managed, acquisitions can enhance the gradual accumulation of the capabilities underlying strategic agility. This article presents a more complex picture of a non-linear reinforcing dual path between M&As and strategic agility. (Keywords: Agility, Mergers and Acquisitions)*

**C**isco Systems Inc., an iconic acquirer in the high-technology arena, has benefitted from engaging in different types of acquisitions. It diversified into home networking in 2003 with the platform acquisition of Linksys, which enabled the firm to access the lower-end product segment and expand its customer base to the consumer market. By contrast, in the preceding decade, Cisco Systems made dozens of technology-grafting acquisitions (e.g., the acquisition of Crescendo in 1993) to extend its product offering, and quickly leveraged them through effective operations and a powerful sales force. Nevertheless, a closer review reveals that Cisco is an exception, as many more acquirers—including technological powerhouse companies—tend to be much less successful.

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Nir N. Brueller is a Lecturer at Tel Aviv University, Faculty of Management–Recanati Graduate School of Business. <nirb@post.tau.ac.il>

Abraham Carmeli is a Professor of strategy and management at Tel Aviv University, Faculty of Management–Recanati Graduate School of Business and King’s College London. <avic@post.tau.ac.il>

Israel Drori is a Professor of management at the School of Business, College of Management Academic Studies, Israel. He is also a Visiting Professor at the Tel Aviv University, Faculty of Management–Recanati Graduate School of Business. <israeld@colman.ac.il>

For example, Intel decided to acquire DSPC Communications in 1999 for \$1.6 billion in an attempt to move beyond the PC-chip market and penetrate the market of designing and selling chips for wireless phones and other devices. However, Intel was too remote from DSPC in terms of both the product and the market to be able to contribute to DSPC in making inroads in this industry. After realizing that the acquisition would not meet expectations, Intel decided to withdraw by selling the business unit to Marvell Technology Group Ltd. for a mere \$600 million in 2006. Treating DSPC as a platform acquisition would have required Intel not only to keep its hands off DSPC’s daily operations, but also to commit the necessary resources

to insure its future growth. According to Sam Arditi, who was with DSPC even prior to its acquisition by Intel: “Marvell is more established in the cellular field than Intel. It has overlapping solutions and it has been active in the field for a number of years. For Intel, this was a niche solution, and at a certain stage the company decided to change strategy and focus on processors.”<sup>1</sup>

Another instance is Lucent, which had a business interest in the wavelength-division multiplexing technology of Chromatis and acquired this startup for a staggering \$4.5 billion, only to terminate the business and lay off its employees the following year.<sup>2</sup> In contrast, less than a year before the acquisition of Chromatis, Cisco bought Cerent, another company from the same industry. Unlike the Chromatis acquisition, the acquisition of Cerent, for around \$7 billion, allowed Cisco to double its foothold in the carrier market. Within two years, Cisco was shipping tens of thousands of products to hundreds of customers. Five years after the acquisition, the majority of the original engineering force was still intact. Moreover, Cerent’s Petaluma offices, which oversee Cisco’s activities in other locations involved in optical products, grew from 380 employees at the time of the acquisition to 500 by 2004, despite the downsizing in this industry during this same timeframe.<sup>3</sup>

These examples raise a fundamental question: Why do some firms manage to become agile in the face of incessant technological change and evermore volatile and uncertain market conditions, whereas others are mired in countless implementation pitfalls and lose their competitive edge? M&As are often believed to be inhibitors of strategic agility because of the complex problems and difficulties entailed in the integration processes. However, many firms fail to become strategically agile, either because they pursue the wrong type of acquisition (or, more broadly, the wrong type of corporate development tool) or because they lack the capacities to handle the tool they employ.<sup>4</sup> On the other hand, others exploit M&As to create strategic agility that enables them to respond quickly and adapt swiftly, as well as create and seize opportunities. While previous research has centered on the study of strategic agility in knowledge-intensive industries, we extend this line of research to include firms from other industries that have excelled in bolstering their strategic agility through appropriate use of M&As.

Evidence from successful acquirers such as Danaher and Pitney Bowes<sup>5</sup> suggests that they pay close attention to differences between *bolt-on acquisitions* (i.e., extending an existing business-unit's reach) and *new platform acquisitions* (which represent a corporate-level diversification orientation). These companies have adapted their organizational processes to manage these different types of acquisitions at both the business unit and the corporate levels. Firms in knowledge-intensive industries such as Cisco Systems, make platform acquisition and bolt-on acquisitions (mostly for new products and technologies). Product acquisitions differ from "technology and talent"<sup>6</sup> acquisitions in which the acquirer is not interested in the target firm as a potentially embedded entity. A compelling example for this acquisition strategy has recently been crafted and implemented in Yahoo under CEO Marissa Mayer.

In the most comprehensive account of strategic agility to date, Doz and Kosonen studied several firms in Information and Communication Technology (ICT) industries<sup>7</sup> and demonstrated how strategic sensitivity, leadership unity, and resource fluidity all contribute to an organization's strategic agility. While recognizing the importance of M&As in fostering strategic agility in general, and specifically by upping the firm's available resources, they state that there is need to further develop "a full analysis of acquisition selection and integration processes, or of building alliances and collaborative ecosystems."<sup>8</sup>

In answering this call, our analysis focuses on Cisco and Intel, as well as several other companies, to provide a more comprehensive understanding of the ways in which different types of M&As serve as a "generative process"<sup>9</sup> and facilitate strategic agility. In so doing, we attempt to gain a better grasp of ways in which M&As promote strategic agility, and the generative nature of the capabilities involved in managing M&As.

## Research Context

Strategic agility relates to firms operating in high-velocity and turbulent environments. An increasing number of industries operate under similar conditions nowadays. These conditions are the consequences of the shorter life cycle of products and technologies, heightened time-to-market pressures, and the need to develop rich product pipelines.<sup>10</sup> This trend has been accompanied by a surge in M&A activity in general, and specifically in industries revolving around ICT,<sup>11</sup> which are thus an excellent context for studying strategic agility in conditions of instability, uncertainty, and continual flux.

## Strategic Agility Defined

We conceptualize agility as *a capability to notice an opportunity and make a rapid yet precise move using extraordinary accelerating power*. In the organizational context, agility is defined in several ways. In manufacturing, agility refers to "the ability to turn on a dime, providing the right product at the right price anywhere by leveraging value-chain-wide resources to generate economies of knowledge."<sup>12</sup> In strategic management, "being agile evokes staying nimble and flexible,

open to new evidence, always ready to reassess past choices and change direction in light of new developments, and willing and able to turn on a dime.”<sup>13</sup> Strategic agility means “having agility without a strategy is no better than having a strategy without agility.”<sup>14</sup> Our conceptualization is also consistent with a practitioner’s view that interlaces strategy and operation. As the president of a well-known fund noted:

“Strategic agility is moving away from the old planning paradigm where there were one group of people that did the planning, and another group that implemented it—this is not valid anymore because a strategy is constantly being fine-tuned while implementing it, and hence operational is in fact strategic.”<sup>15</sup>

Thus, strategic agility can be defined by the set of business initiatives an enterprise can readily implement.<sup>16</sup> If some firms are better than others in their ability to adapt to a broad range of possible future postures, they may thrive under unexpected difficulties that might weaken or eliminate their less-agile peers. Furthermore, agility implies that firms are able to change a course of action without significantly losing momentum. Prior research points to three key components of strategic agility: strategic sensitivity, collective commitment, and resource fluidity.<sup>17</sup>

Hence, we define strategic agility as *the capacity of making knowledgeable, nimble, rapid strategic moves with a high level of precision*. This definition entails that agile organizational systems are capable of:

- *Knowledgeable Sensemaking*—Being superior in sensing and processing relevant information through deep involvement in the ecosystem and preferential relationships with providers of such information, allowing the agile firm to be the first to notice emergent trends or needs and address them.
- *Nimble Decision Making*—Being quick to move or act, through a solid grasp of the organization’s position and capabilities based on its accumulated experience. This involves using tested decision heuristics and minimizing organizational resistance in the decision-making processes.
- *Rapid Resource Redeployment*—Being able to implement fast in order to capitalize on opportunities, particularly in the post-merger integration needed to seize the value enabled by the acquisition.

A closer look at these components of strategic agility points to two main features. First, they correspond quite accurately to the three main stages of the acquisition process, starting with the screening and evaluation of potential targets, through the decision and deal-making phase, and finally the completion of the post-merger integration phase. Put differently, the strategic agility framework can be applied to the three phases of the M&A process—screening, deal making, and post-merger integration (PMI). However, we suggest applying the framework around the moment of acquisition, because sensemaking is particularly crucial to the screening phase, the decision facet centers around the deal-making phase, and that mobilizing resources is especially vital for the PMI phase. Second, going through these stages provides invaluable learning opportunities for the organization. After the completion of the PMI phase the organization has learned a great deal not only about what worked and what did not in its integration approach, but also about what could or should have been done differently in the previous phases—the pre-deal screening

as well as the decision and deal making. A successful process of managing M&As can become a generative process for strategic agility.<sup>18</sup> Cisco, Danaher, and Pitney Bowes, as well as many others, have articulated and codified their learning into decision rules. The simplicity of many of these rules<sup>19</sup> should not be mistakenly perceived as superficiality. Despite their seemingly simplistic articulation, they are the outcome of extensive experience and subsequent abstraction. Moreover, these rules apply to clearly delineated sets of circumstances.

## Classes of Acquisitions

For several decades M&As have been studied as an important strategic source of growth and diversification. M&As help firms to respond and adapt to environmental changes by reconfiguring their organizational system through new resource combinations between the acquiring and the acquired firms.<sup>20</sup> In many studies, acquisitions have been classified in terms of the type of relatedness between the transacting parties or the motives of the acquirers.<sup>21</sup> However, these approaches have not fully captured the distinction between platform, product, and educational acquisitions, which differ mainly as regards the nature of change they bring about and its time horizon. The closest set of definitions to ours referred to acquisitions of a capability, a platform, or a business position.<sup>22</sup> Nevertheless, the use of these definitions by practitioners may not be entirely consistent with their academic use. First, practitioners use finer-grained definitions than “acquiring a capability,” differentiating between *product acquisitions* and *technology-and-talent acquisitions*.<sup>23</sup> Second, the term *platform acquisition* is often used by practitioners to refer to very large acquisitions oriented at gaining an established market position. In this case, the academic definitions enable us to distinguish between a platform acquisition (which is a first step to be followed by significant further investments) and the acquisition of a business position (which, by itself, meets the expectations of the acquirer).<sup>24</sup>

As mentioned earlier, we define *bolt-on acquisition* as either a product extension or a market extension into an adjacent product-market category.<sup>25</sup> Most bolt-on acquisitions by high-technology incumbents focus on new products and technologies, and are sometimes referred to as *technology-grafting acquisitions*.<sup>26</sup> Two important features of bolt-on acquisitions are noteworthy. First, although the organization is entering a new domain in terms of either the product or the market, it leverages the existing markets or products, respectively. Second, the new product or market domain is somewhat familiar to the firm, or, put differently, immediately adjacent to the firm’s base.<sup>27</sup> In contrast, we use the term *platform acquisition* when the target company consists of an entire value chain with little or no overlap to that of the acquirer. Such acquisitions involve new activities such as R&D and product design in the early stages of the value chain, in addition to new capabilities in the later stages of the value chain, such as manufacturing, sales, and support. Bruce Nolop, CFO of Pitney Bowes, noted the importance of this distinction:

It was tremendously helpful when we recognized a fundamental difference in the types of acquisitions we were undertaking. One type, the *bolt-on*, fits neatly into a business or market we are already in; the other, the *platform*, takes our company into a new (though adjacent) business space or activity. If a bolt-on acquisition is

the equivalent of a swan dive, a platform is a reverse two and-a-half somersault with a half twist. The higher degree of difficulty entails more risk (but a potentially higher reward) and less frequency; platforms represent less than a sixth of our transactions (although about two-thirds of our total investment) to date.<sup>28</sup>

CFO Nolop's comment makes it clear that platform acquisitions and bolt-on acquisitions differ in their frequency, complexity, risk, and potential yield. Compared to bolt-on acquisitions, platform acquisitions are less frequent, more complex and risky, and have the potential to generate high returns. Although platform acquisitions are viable firms before being acquired, to be able to realize synergy beyond merely acquiring an existing business position, the acquirer needs to commit to significant further investment.<sup>29</sup> The required post-merger processes are complex<sup>30</sup> as they require the acquirer to enable the target to continue to manage its operations independently, at least for a certain period of time. For example, when Cisco bought IronPort, a software company that differed from Cisco's hardware-based legacy business, Cisco acknowledged that it lacked the necessary capabilities to intervene in IronPort's business:

"We can't buy a company and tell it to do as we see fit if we don't have a true understanding of the marketplace."<sup>31</sup>

Acquirers in platform deals need to continuously protect the boundary of the acquired company, as well as champion the acquisition internally to gain legitimacy and commitment for future development of the platform. However, they need to play several other roles to create synergy in general and enhance strategic agility.<sup>32</sup> One such role is to nurture the target through the induction of an ambitious vision, and the provision of the practical support for its implementation.<sup>33</sup> Another role is concerned with learning, either about the target's industry and operations or, on the process side, about how to better manage platform acquisitions in the future.<sup>34</sup> Finally, they can offer synergies in general management skills and support functions, such as financing and human resources, which are available to all acquisition types.<sup>35</sup>

A key question concerns the strategic rationale—namely, why and when a firm is likely to pursue these types of acquisition. We looked carefully at the direction and extent of diversification in terms of both product and market overlap between the target and the acquirer.<sup>36</sup> This framework is useful since it lends itself naturally to distinguishing between corporate-level diversification through platform acquisitions and business-level bolt-on acquisitions.

At the corporate level, acquisitions are geared toward penetrating new and attractive domains by acquiring relatively large firms, such as a division of a larger corporation, a stand-alone public firm, or a private company.<sup>37</sup> Platform acquisitions are intended to expand the corporate portfolio into new markets, as well as new products. This is related to the target's fully developed value chains, with both upstream (products) as well as downstream (sales and marketing) capabilities. Corporate diversification is easier to implement through an initial platform acquisition,<sup>38</sup> as Danaher CEO Larry Culp noted:

"It was tough to build a string of pearls from later add-on acquisitions without a center of gravity on which to build."<sup>39</sup>



In high-technology settings, bolt-on acquisitions, championed at the business-unit level, typically involve small, technology or product-oriented targets.<sup>40</sup> The products sought through such acquisitions enable the business to fill gaps in the early stages of its value chain (mostly product-related) by adding an additional product or technology to the firm's product offering. Since the target extends an existing product line, it can rely on a significant chunk of the acquirer's later stages of the value chain (mostly leveraging existing access to customers) to deliver the expected synergies. For example, when Cisco bought Crescendo, the acquired product was leveraged by Cisco's existing operations, marketing, and sales channels. Cisco's former chairman John Morgridge described the rationale for this type of acquisitions:

"At the time we made our first acquisition we had a wonderful asset in the form of a channel to sell, install, and service products for the global market. As a result, there was tremendous leverage in acquiring a product that met the market requirement and to put it through our channels. We can take [a new product] and leverage it very dramatically. To a large degree that has been our strategy with most acquisitions."<sup>41</sup>

These acquisitions, which Morgridge calls product acquisitions, are focused on target firms in a narrow time window: after the completion of product development, but preferably before significant commitment has been made in the go-to-market strategy. Such acquisitions already provide significant growth in the short-term period. For example, during the first 18 months following the acquisitions of Crescendo, its annual sales grew from \$10 million to \$500 million, and within five years they had topped \$2.8 billion annually.<sup>42</sup>

In contrast, after Cisco acquired Nemo Systems in 2005 for \$12.5 million, it had to wait for several years before the acquired technology could be integrated into Cisco's routers.<sup>43</sup> Nemo Systems was a fabless semiconductor company, building caching technologies for scaling high-speed networking systems. Sundar Iyer, a computer-science Ph.D. candidate at Stanford University, founded the company in 2003, based on the mathematical work he did during the dissertation research. The company raised a mere \$1.8 million in venture to fund a small team of 6 employees and develop a novel method of using cheaper memory chips in routers.<sup>44</sup> The technology derived from several years of original research at Stanford University, but it needed further development at Nemo Systems and then a lengthy technology integration effort into more than 10 of Cisco's high-speed enterprise routers of which millions were sold annually.<sup>45</sup> Many other companies in knowledge-intensive industries pursue this variant of bolt-on acquisitions, focused on gaining access to superior technology and talent, and educating the company about an emerging opportunity as opposed to providing it with a complete product. These smaller deals with their limited number of employees are relatively easy to integrate into the acquirer's research and development organization, although the need to integrate the acquired technology into the acquiring firm implies that it might take much longer before the synergy is realized. In addition, the time to market of the acquired technology is often long, due to the need to integrate it with the complementary technologies of the acquirer.

Consider the example of a technology developed by Arogyaswami Paulraj, an electrical engineering professor and head of the Smart Antenna Research (SAR) group at Stanford University. In 1999, Paulraj founded Iospan Wireless,

which developed a multiple-input multiple-output (MIMO) wireless technology. Despite large investments of nearly \$70 million from prominent investors and the successful build-up of a team of 60 developers,<sup>46</sup> Iospan ran out of financial resources and ceased operations, and it was subsequently acquired by Intel in 2003 as the latter was looking for wireless technologies. Paul Otellini, who later became Intel's CEO, was concerned that Intel didn't have the skills for WiMAX and suggested that Intel would have to either hire or buy the expertise. In an interview conducted in December 2005, he said: "That stuff takes decades of experience, and we needed to get the best and brightest."<sup>47</sup> The acquisition of Iospan provided Intel with a key technology pillar, but could not reconcile and mitigate the fundamental issues Intel faced in its attempt to commercialize WiMAX technology.<sup>48</sup>

Misidentification of the type of acquisition can lead to significant failure later on. Therefore, an important outcome of experience is not only the refinement of rules to deal with each acquisition category, but also a typology of acquisitions with a clear delineation of the boundaries of each type. The refinement of the typology enables further refinement of the rules applicable to each of the types. Platform, product, and technology or talent acquisitions differ both in the nature of the transformation they offer to the acquirer, as well as in the time horizon in which they drive organizational performance. Product acquisitions, when carefully selected and well-executed, enable the firm to benefit from extreme strategic agility in the very short term by broadening the product offering the firm provides to its existing customers. Platform acquisitions, in contrast, do not enhance the acquirer's agility as soon after the acquisition. Only with time is strategic agility enhanced when the platform can be leveraged to take advantage of opportunities adjacent to its offering. Finally, technology-and-talent acquisitions may bring a necessary component to the firm. This component, however, can only contribute to the firm's agility once the firm has successfully carried out the internal development to complement the acquired technology or talent. Its contribution can thus be felt only in the long term. The distinction between these categories is illustrated in Table 1.

## Cornerstones of Strategic Agility

### *From Sensemaking to Making Decisions*

How do firms spot and select potential platform acquisitions? They rely heavily on foresight, and are often required to design a set of search rules and practices. Executives at Danaher, which is a broadly diversified company, followed the rule that "the market comes first, the company second."<sup>49</sup> The board regularly reviewed a list of potential targets prepared by the senior executive group composed of the CEO, CFO, Head of Strategy Development, and Head of M&A.<sup>50</sup> Certain criteria—such as the size of the market, its growth rate, fragmentation, lack of outstanding competition, and relevance to the company's core competencies (which underpin the desired synergies)—were used to screen potential markets. A Danaher executive summed it up simply: "we look for markets of size and where we can win."<sup>51</sup> The refinement of the market definition emerges from a thorough grasp of the acquirer's capabilities and repeated applications of these



**TABLE I.** Platform, Product, and Technology & Talent Acquisitions

<b>Acquisition</b>	<b>Level</b>	<b>Target Size and Age</b>	<b>Time Horizon</b>	<b>Potential Synergies</b>	<b>Required Change</b>	<b>PMI Approach</b>
Platform	Corporate (new line of business)	Large and established, needs to provide a center of gravity for activity in a new domain.	Long	Low to medium as initial integration is very shallow as significant synergy realization may happen only later.	Radical (e.g, new product domain, new customers).	Preservation
Bolt-On (Product)	Business Unit (new product)	Medium, as size and age represent a tradeoff between stand-alone research and development on one hand, and the necessary flexibility to be integrated with the acquirer's downstream capabilities.	Short and Long	Medium to high depending on choice of target and appropriate integration.	Incremental	Combination of preservation for upstream activities (mostly product-related) and absorption of downstream activities (manufacturing, sales).
Bolt-on (Technology and Talent)	Business Unit (new component)	Young and small as the target is to be fully absorbed and the acquirer typically assumes responsibility for the remaining chunk of product development, with heavy dependence on the acquirer's staff.	Long	Low to medium as product is not readily available and requires joint development by acquirer and target's staff.	Radical (technologically)	Absorption

capabilities in the markets entered thus far. For Danaher, this meant fragmented manufacturing industries, in which its superior Kaizen-based capabilities embedded in its Danaher Business System (DBS) could be successfully applied.

At Pitney Bowes, a similar search process is employed in platform acquisitions. It focuses on similar strategic questions such as the attractiveness of the business, its growth rate, the distance between the new business and the existing businesses, cultural compatibility, and potential dilution in the consistency of the acquirer's brand. In explaining a recent acquisition of Portrait Software, Pitney Bowes's Chairman, President, and CEO Murray Martin said:

"Pitney Bowes is expanding its range of software solutions that help our customers grow their own businesses. The capabilities we found at Portrait Software are an excellent complement to our existing offerings and will find their way into the suite of tools we provide to organizations of all sizes. We know that our customers are looking to communicate with their customers and prospects in ways that generate real results; increasingly, Pitney Bowes can help them do that."

Obviously, after a major decision (platform acquisition) to enter an industry has been made, firms that engage in bolt-on acquisitions can and should pay closer attention to synergy-related issues. Specific synergies are analyzed using various potential sources such as cost reduction, cross selling, complementary products and technologies, or complementary markets.<sup>52</sup> The specificity of synergistic benefits and the difficulties in realizing them imply that bolt-on acquisitions are the responsibility of the business units and follow a set of specific guidelines that are distinct from the set developed for platform acquisitions. In an interview he gave to Accenture in 2006, Danaher CEO Larry Culp noted:

"We look first at strategic fit, then at our organizational ability to tackle the transaction, and finally at the financial considerations. Any transaction you have seen us complete has successfully overcome all three of those hurdles."

In this company, bolt-on deal opportunities are reviewed monthly with each business unit, with far more candidates screened than deals consummated.<sup>53</sup> Pushing down the acquisition responsibility into the business units increases the organization's deal-making capacity, and offers the centralized corporate M&A and business development functions ample opportunities for process learning.

In contrast to the analytical exercise of searching new markets for potential corporate growth, bolt-on acquisitions often emerge naturally on the radar screen of participants in the existing firm's ecosystems such as employees, customers, and business partners. For example, Cisco sensed that Crescendo could become an attractive acquisition from interactions with customers. In 1993, during negotiations with Boeing over a \$10 million project, Cisco learned that Boeing preferred Crescendo's low-cost, less-function products over Cisco's expensive and feature-rich routers. Moreover, Cisco managers were told that they would not get the contract unless they worked with Crescendo, either through partnership or purchase. Around the same time, Ford Motor Company also told Cisco that it was going to choose a new fast Ethernet LAN technology in which Crescendo specialized, rather than Cisco's routers.<sup>54</sup>

### ***From Decision Making to Resource Redeployment***

Because bolt-on acquisitions are more common and frequent than platform acquisitions, they have different implications for process learning. Successful acquirers gain most of their process experience from bolt-on acquisitions and gradually systematize their capability to manage acquisitions as an almost semi-organic growth strategy. Such acquisitions are even described as “grafting,” which suggests that in the post-merger period the acquired firm virtually becomes an organic part of the acquirer. Since the main purpose of these acquisitions is to complement internal R&D efforts and allow acquirers to quickly respond to briefer product life cycles primarily in growing markets, time-to-market is of paramount importance. This point is best captured by a famous quote from John Chambers, Cisco’s CEO: “if you don’t have the resources to develop a component or product within six months, you must buy what you need or miss the opportunity.”<sup>55</sup> Despite the extreme agility enabled by these acquisitions, the strict selection criteria for bolt on acquisitions makes them applicable to a narrow set of strategic avenues in which the acquired organization could be grafted and would benefit from the acquirer’s existing capabilities in areas such as manufacturing and sales to deliver the specific sought-after synergies. In a sense, the acquirer can turn on a dime, but only because of its existing downstream capabilities. Strategic agility at the business level can thus be seen as a very powerful tool, but one that is also very narrow in scope and limited to a set of closely related product-domains that can be served by means of the acquirer’s existing downstream resources. In the case of Cisco, the emerging selection criteria were geared toward rapidly scaling up the target’s sales in a newly entered product category while guaranteeing that in the long term the grafted organization would become a seamless part of the overall Cisco machine:

“First, if your visions are not the same—about where the industry is going, what role each company wants to play in the industry—you are constantly going to be at war. There can be differences in technology visions or industry visions, so you have to look at the visions of both companies and if they are dramatically different you should back away. Second, you have to produce quick wins for your shareholders. If we did not produce a win with Crescendo in the first year, our shareholders would have been all over us. And if it is only short-term, then it is not strategic. Shareholders have to benefit from any acquisition. Third, you have to have long-term wins for all four constituencies—shareholders, employees, customers and business partners. I know that sounds corny but it is true. Finally, the chemistry has to be right, which is hard to define.”<sup>56</sup>

This rationale for the rapid scale-up of new product sales is not unique to Cisco, nor is it exclusively tied to entry through acquisitions. A similar logic applies, albeit with some firm-specific changes, to other platform leaders (such as Intel and Microsoft) and to other means of entering new product domains (such as by internal development). For example, when Microsoft was challenged by Netscape it leveraged its market dominance in operating systems and bundled Explorer, its own Internet browser, as part of Windows. It was not long before Microsoft won over the market. Intel made a similar move when it bundled the chipsets controlling access to memory and I/O (Input/Output) alongside its CPU.

Within two years, between 1993 and 1995, Intel went from zero to the top share of the chipset market with 34 percent.<sup>57</sup> A few years later, in 2000, Intel was challenged again, this time by a small Silicon Valley firm by the name of Transmeta, which tried to grab market share in the laptop market by introducing a more power-efficient processor. Intel ultimately responded in 2003, when it introduced its Centrino platform. First, Intel modified its processors by allowing them to operate with reduced speed to preserve power. Second, Intel added a wireless local area network (WLAN) adaptor to its bundle of Pentium M mobile processor and chipsets, leveraging and extending its platform leadership.<sup>58</sup> Intel's branding of this bundle under the Centrino name, along with a marketing budget of \$300 million and aggressive pricing propelled Intel to a leading position in the WLAN market by 2005.<sup>59</sup> What these examples illustrate is the extent to which product extensions, when reasonably adjacent to the existing product offering, may enable technology incumbents to take over emerging product categories from early innovators by exercising strategic agility, resulting in successful leveraging of the incumbents' strengths in their core markets.<sup>60</sup> The other side of the coin is that the timing of the incumbent's entry needs to correspond to the moment when they possess the necessary capabilities to win the market over by themselves.

Researchers have pointed to three key integration approaches—preservation, absorption, and symbiosis—that are contingent on the need for organizational autonomy on the one hand, and the need for strategic interdependence between the merger parties on the other.<sup>61</sup> Our view expands their approach in several ways. First, preservation enables the platform acquisition to exist without interference. Second, preservation is necessary to bolt-on acquisition but not sufficient, because the speed and ability to scale up the sales of the target firm require absorption of some of the activities. Third, preservation is not sufficient to enable successful technology-and-talent acquisition, because the new acquired technologies and talents represent only a subset of the requirements of the new domain or product/market.<sup>62</sup>

## Reflecting, Codifying, and Articulating the Limitations of Strategic Agility

The fact that Cisco successfully articulated in which cases and how it is able to create value also helped it identify what it should refrain from doing. For example, this insight enabled John Morgridge, Cisco's previous CEO and Chairman, to state that there is nothing worse than big companies that over-invest in markets before their time.<sup>63</sup> A key implication that Cisco provides us with regard to the creation of value is that picking a target should be done after it had already completed the development of the product, but before it had made irreversible commitments in their go-to-market strategy.

In contrast, in 2006, when Intel invested \$600 million in Clearwire,<sup>64</sup> it did exactly what Morgridge warned against. Intel wanted to help WiMAX take off by investing in Clearwire, a startup operator founded in 2003. Intel was interested in speeding up the emergence of a complete value chain for the adoption of WiMAX wireless networking technology, which it wanted to include in laptops.

Hoping to replicate its success only a few years earlier in the bundling of Wi-Fi (WLAN technology mentioned above), Intel underestimated the material difference between these technologies.<sup>65</sup> Since Wi-Fi could take off quickly as it is set up locally by simply installing a local hotspot, WiMAX could only become prevalent on a large scale if an entire value chain of network equipment providers and carriers committed to this technology. Unfortunately, Intel and other WiMAX proponents were fighting an uphill battle against the incumbents of the cellular value chain, which supported their own standard, termed LTE.<sup>66</sup> Despite the fact that the standard war was still raging, Intel decided to commit huge resources to back the WiMAX technology alone.<sup>67</sup>

Besides the role of M&As in fostering agility, other corporate development tools deserve equal attention. For example, Cisco systematically used small minority stakes before the time was ripe to bet on one target and be reasonably confident that it could scale up the acquired product rapidly. IBM differentiated business processes according to three time horizons, with different target settings and different review processes.<sup>68</sup> Similar practices hold for other companies from different industries.<sup>69</sup>

In addition to the identification and categorization of emerging opportunities, successful companies are also aware of the importance of sticking to the rules, at least until there is persistent and grounded evidence that the rules need to be extended or modified. Successful acquirers such as Cisco, Danaher, and Pitney Bowes repeatedly state their commitment to the rules and willingness to refrain from making acquisitions that violate these rules.<sup>70</sup> In contrast, Lucent Executive Vice President Pat Russo described a much less stringent approach to target selection:

“Although we don’t have an ‘acquisition strategy’ as such, we are open to acquiring firms that will better enable us to execute our business strategies. For instance, when we find we have a gap in a specific talent, technology, or geographic market, an acquisition may present a strong option for closing that gap.”<sup>71</sup>

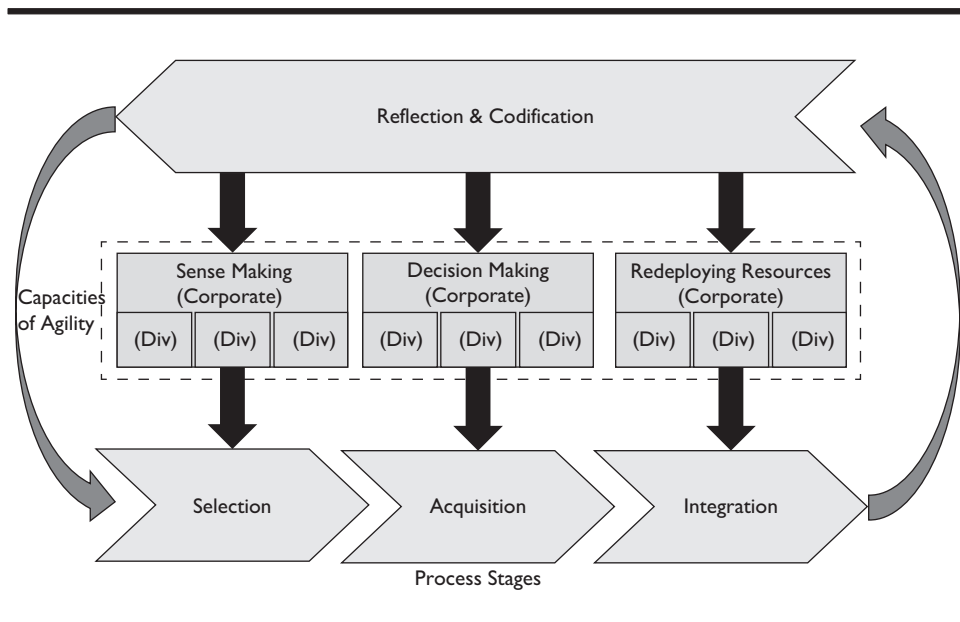
Consider the following example. In the summer of 1999, Cisco was approached by International Network Services (INS) regarding possible acquisition. Cisco decided that despite pressure from customers in the telecom service provider segment, which it wanted to enter, the acquisition of two thousand employees in the network consulting and planning services business presented too much of a stretch to its existing strategy.<sup>72</sup> Cisco CEO John Chambers decided not to take the proposal for the acquisition to his board. On September 7, 1999, Lucent Technologies announced that it would purchase INS for \$3.7 billion. The INS CEO John Drew was chosen to lead the NetCare Professional Services Division with its post-merger 5,500 employees, 2,000 of whom came from INS. Rather than leveraging the service capabilities that INS was known for, Lucent tried to use it as a vehicle to sell its own equipment.<sup>73</sup> In July 2002, Lucent sold the enterprise portion of its professional services to International Network Services Inc.—a recently created, wholly owned subsidiary of West Coast Venture Capital LLC, a California venture capital firm. Although the price was not disclosed, IDC estimated it was less than \$30 million for 750 employees (including 600 engineers).<sup>74</sup>

In contrast, as Cisco matured it realized that it needed to extend its available corporate toolbox and that it had to modify certain acquisition criteria to

enable it to enter into consumer networking through the acquisitions of Linksys and Scientific Atlanta. Cisco realized that this difference had implications for both the speed of implementation as well as the risk of failure. For example, Cisco's 2006 platform acquisition of set-top box manufacturer Scientific Atlanta (with more than 7,500 employees, for an enterprise value of about \$6.9 billion) brought Cisco into relatively uncharted waters in terms of both the upstream and downstream parts of the value chain. Recognizing this, Cisco initially refrained from making moves towards integration, and even planned to take a year and a half learning more about Scientific Atlanta's business prior to sitting down with its executives to discuss sales synergies. Over time, platform acquisitions, although much rarer, have also enabled the accumulation of experience and codification of guidelines on how they should be handled. The process that acquirers follow before, during, and after the acquisition enables learning after the event. Reflecting upon completed cycles of selection, acquisition, and integration enables rules to be crystallized and the scenarios in which such acquisitions are appropriate to be delineated. The codification of these lessons allows the organization to augment the capacities underpinning strategic agility in a generative,<sup>75</sup> reinforcing manner. This dual-path process is illustrated in Figure 1.

In addition to the reflection process, an organization needs to develop knowledge combination capabilities, the ability to absorb and integrate exchanged information.<sup>76</sup> Researchers have also stated that the real benefit in successful acquisitions derives from the transformation of the acquirer's own organizational capabilities and competitive strategy. This transformation depends on the extent to which managers are open to the acquired capabilities and are able to leverage them in their own organizations.<sup>77</sup> Relational capital manifests quality work relationships

**FIGURE 1.** Process of Building Up Capacities Underpinning Strategic Agility





that facilitate the flow of useful information within and across different organizational entities and that cultivate the capacity to apply new knowledge bases. The latter is vital for ensuring an agile system that is capable of rapidly introducing new products and services in the market.<sup>78</sup> In the context of M&As, knowledge flows enable the parties to access each other's knowledge bases, but in order to promote strategic agility they need to develop the capacity to combine the knowledge that has been exchanged and transferred. This is essential in all forms of the M&As discussed here, but integrating knowledge bases derived from platform, bolt-on, and technology-and-talent acquisitions varies significantly in the effort that needs to be exerted. For example, it is probably relatively less complicated to integrate expertise that resides in members of acquired firms that are seen as a bolt-on and technology-and-talent acquisition transactions than platform acquisitions, where the breadth and depth of the derived knowledge are more comprehensive. Furthermore, in all categories of acquisitions, managers need to respond to PMI demands by improvising and making better utilization of available resources. Thus, to promote strategic agility, organizations may be required to develop different mechanisms by capturing the essence and substance of each M&A type. For instance, organization can use an ad-hoc task force to promote strategic agility through technology-and-talent acquisitions by enabling a more intimate connection. However, organizations that engage in platform acquisitions may need to use a more systematic design to foster strategic agility because of the level of complexity in such transactions.

The link between firm success and learning from acquisition experience is more complicated because it is derived from both theoretical and methodological difficulties.<sup>79</sup> However, experience is not an automatic determinant of either firm success in general or strategic agility in particular. What is of importance is the ways whereby experience serves as basis for new knowledge creation. Specifically, our framework points to different acquisition forms and how learning from these experiences can promote strategic agility. By reflecting on experiences, the organizational system as a whole is more mindfully attentive to work processes.<sup>80</sup> Learning from acquisitions experience is vital for adaptability<sup>81</sup> and nimble responses to emerging situations. Research on crisis management and learning from failure shows that when organizations enact such processes, they are better equipped to deal with challenging situations.<sup>82</sup>

In addition to the reflection process, an organization needs to develop knowledge combination or integration capabilities, which is often done through a codification process. The outcome of the codification process is a portfolio of tools such as due diligence checklists and integration manuals.<sup>83</sup> By applying new knowledge, an organization enhances its ability to cope with challenges, neutralize threats, and seize opportunities.<sup>84</sup>

## Conclusion

The components of strategic agility correspond closely to the three main stages of the acquisition process. An organization may become significantly more agile if these three capacities jibe with one another, such that the organization's

sensemaking is focused on its most promising potential targets, its deal making capabilities are tuned to value creation, and the resource reassembly and redeployment capability enables the realization of created value.

For this process to enhance strategic agility, the organization needs to employ retrospective sensemaking through reflection and codification processes to help guide future acquisitions. In this respect, it is important to acknowledge the limitations of strategic agility. Acquisitions are relatively infrequent and heterogeneous events, and thus pose significant challenges to the accumulation of organizational capabilities. Successful acquirers start out by gradually specializing in a relatively narrow scope of acquisitions, and then developing a well-articulated rationale. Only then should organizations experiment with different types of acquisitions, bearing in mind that their tools and rules need to evolve as they refine the types of acquisitions and the guidelines to acquire them. Of equal importance is the recognition that strategic agility serves not only as a capacity for change and adaptation, but that the same capabilities that enable strategic agility in one scenario may significantly hinder it in another.

This study expands the line of research that explores agility predominantly through large firms in ICT industries.<sup>85</sup> Strategic agility may at first seem more relevant to some firms than to others. In fact, larger firms can afford to become active acquirers by benefitting from strong capacities to handle their acquisition programs. Furthermore, although many small firms lack the resources to carry out such programs, they may not need them since they may inherently be more agile due to their size. However, the process of developing the necessary capabilities to handle M&As is lengthy, requires an organizational culture of openness, and is subject to time compression diseconomies.<sup>86</sup> Therefore, it is critical to begin developing this capability early on in the process. Bolt-on acquisitions can already offer firms significant growth-related benefits at the stage when they are composed of a single business unit. Thus, there is a strong incentive to employ bolt-on acquisitions to eliminate and later on mitigate potential rigidity resulting over time from increased firm size.

## Notes

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  40. In other cases, bolt-on acquisitions might focus on acquiring capabilities in the later stages of the value chain (such as outlets in different geographies) to market and sell the acquirer's existing products. Nevertheless, this scenario is less common in high-tech industries, in which many incumbents already have a global market footprint but continue to seek complementary products and technologies.
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