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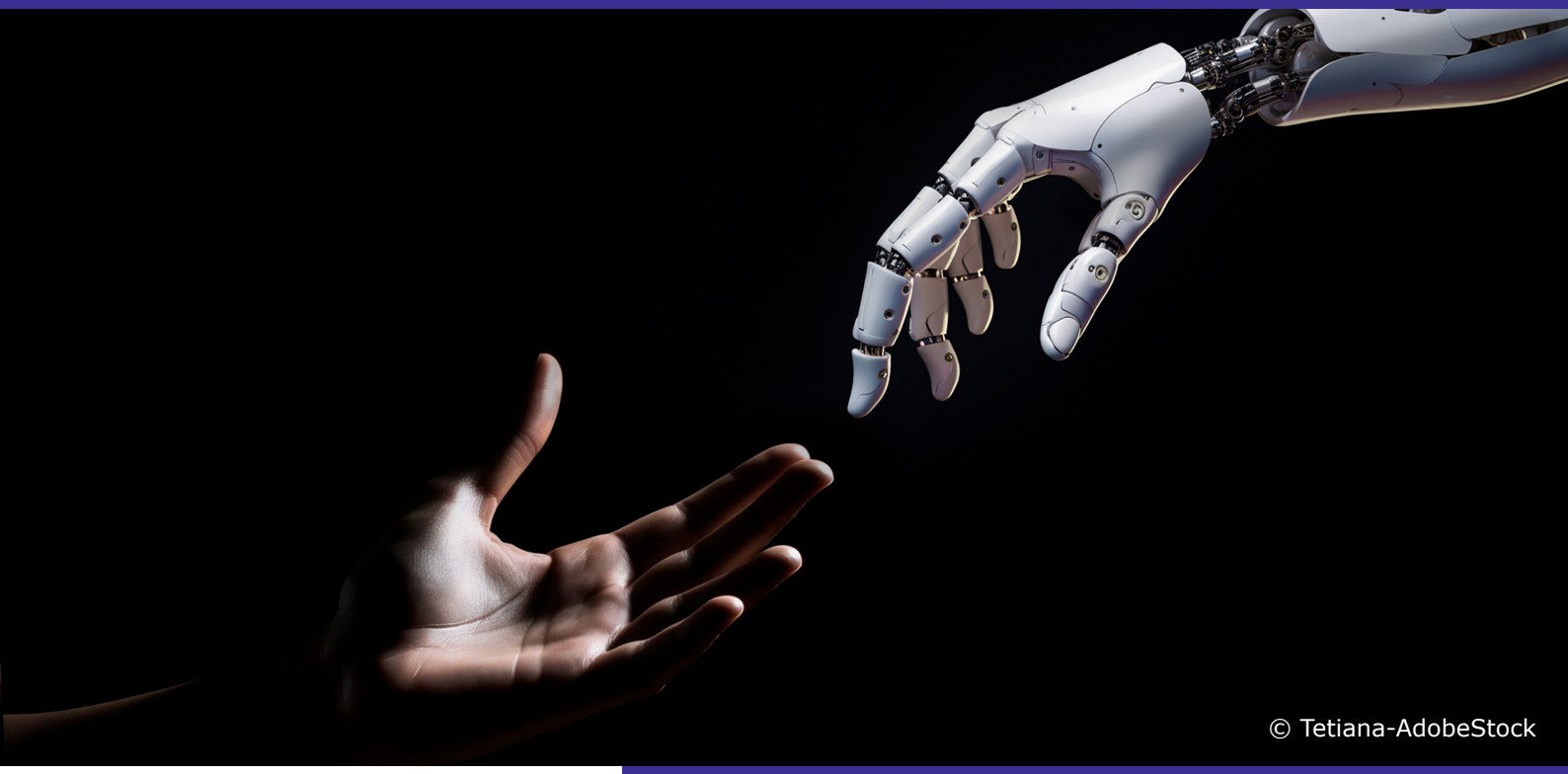

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LIGHTS - Technology

When Artificial Intelligence Turns Strategic Resources into Ordinary Resources

ESCP Impact Paper No.2024-48-EN

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Abstract

One of the main consequences of the widespread adoption of artificial intelligence in business is the transformation of many strategic resources (which serve as sources of competitive advantage) into ordinary resources (accessible to all competitors). This "de-strategizing" of resources marks a significant disruption in established theories and practices of corporate strategy. As a result, we are observing a change in competitive advantage dynamics. Competitiveness now depends less on possessing valuable, rare, inimitable, and organization-mobilized resources and competencies (as outlined in Barney's VRIO model), and more on controlling AI systems capable of generating them. This shift is likely to particularly disadvantage European companies compared to their American and Asian counterparts, until Europe develops AI capable of safeguarding its strategic autonomy.

Keywords: strategic resources, VRIO model, generative AI

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Strategy involves determining how a company can achieve a competitive advantage, typically measured by its ability to consistently generate higher profitability than its competitors. Historically, two interpretations of how to achieve this competitive advantage have emerged:

1. Michael Porter and the "Deductive Strategy" approach: This approach, derived from industrial economics, emphasizes identifying the industry's structures (its critical success factors) and adapting to them better than competitors. In this view—which echoes the Darwinian paradigm—strategy is primarily an externally conditioned process (Porter, 1985).
2. The "Constructed Strategy" approach: In contrast, those following Edith Penrose (1959), Birger Wernerfelt (1984), or Jay Barney (2010) argue that companies with a competitive advantage possess strategic capabilities, i.e., unique resources and distinctive competencies that can reshape existing industries or create new ones. This internally conditioned approach is generally known as the "Resource-Based View."

While Porter's approach remains favored by practitioners, strategic research has focused mainly on the Resource-Based View, particularly the works of C.K. Prahalad and Gary Hamel (1990) on core competencies, David Teece (1991) on dynamic capabilities, and Steven Lippman and Richard Rumelt (2003) on microfoundations.

However, the Resource-Based perspective is being challenged by the recent emergence of generative artificial intelligences such as OpenAI's ChatGPT and DALL E, Microsoft's Copilot, Google's Gemini, or Meta's Llama. These generative AIs are likely to turn the strategic resources that give many companies a competitive edge in consulting, law, information, health, and education into common, easily accessible resources.

Considering this "de-strategizing of resources" is especially enlightening. By rearranging the strategic landscape, generative AI has the potential to profoundly alter the sources of competitive advantage. This issue is particularly pressing for European companies, at least until Europe achieves genuine technological independence in this domain.

The Resource-Based View in Practice: The VRIO Model

The established framework for assessing the strategic significance of a resource or capability is Jay Barney's VRIO model (2010). According to this model, a resource or capability must meet four criteria simultaneously to confer a lasting competitive advantage, forming the acronym V, R, I, O:

- Value: The resource or capability must generate added value for customers, justifying a price higher than costs and resulting in profit.
- Rarity: The resource must be rare. If most competitors also possess it, it cannot support a competitive advantage.
- Inimitability: The resource must also be inimitable, or at least difficult for current or potential competitors to copy, otherwise the advantage it offers will not endure.
- Organization: The company must be structured to exploit this resource. Holding a strategic resource is futile if the company cannot leverage its potential.

Barney thus proposes a practical test to assess the strategic significance of a resource, whether it's a patented technology, a well-established brand, a prime location, exclusive access to raw materials, a unique network of relationships, or exceptionally skilled human resources:

- A resource that fails to meet any of the VRIO criteria (neither value-creating, nor rare, nor inimitable, nor utilized by the organization) results in a competitive disadvantage. It lacks apparent strategic value, although some companies may succeed by relying on ordinary resources (Fréry *et al.*, 2015).
- A resource that generates value but lacks rarity, inimitability, or utilization by the organization ensures parity with competitors. This is termed a threshold resource or competency: possessing it is essential but doesn't confer a competitive advantage.
- A resource that is both value-generating and rare, but not inimitable or utilized by the organization, yields a temporary competitive advantage. Eventually, competitors will be able to replicate it, relegating it to the status of threshold resource.
- A resource that is value-generating, rare, and inimitable, yet not utilized by the organization, represents strategic waste. It remains an untapped asset, possibly overlooked within a subsidiary and unknown to top management.
- Lastly, a resource that is value-generating, rare, inimitable, and utilized by the organization serves as a basis for sustainable competitive advantage. It can therefore be classified as a strategic resource or competency.

This VRIO test is found in nearly all strategy manuals and is commonly taught in business schools and universities.

Illustration: Consulting Firms

For instance, an international consulting powerhouse such as McKinsey, BCG, or Bain boasts two primary strategic assets:

1. Consultant Excellence: These firms meticulously select top-tier talent from premier institutions, ensuring their consultants exhibit exceptional skills and unwavering commitment. These human resources not only add value for clients (who willingly pay premium fees for their expertise) but are also scarce (evidenced by rigorous recruitment standards), difficult to replicate (unless aggressively headhunted, though substantial compensation helps deter this), and effectively harnessed by the organization (through robust recruitment, evaluation, training, promotion, and alumni engagement protocols).
2. Cumulative Expertise: Their extensive track record across diverse projects and clientele is often systematized into refined analytical methodologies and continuously updated databases. This wealth of experience is highly prized by clients (who recognize the access to specialized knowledge not available internally), rare (with few competitors possessing comparable depth), difficult to imitate (not easily replicated by rivals), and effectively utilized by the organization (ensuring consultants leverage it effectively).

These two VRIO assets significantly bolster the prestige and competitive edge of these elite firms. Similar assessments can uncover VRIO assets within financial institutions, academic institutions, healthcare providers, legal firms, or media conglomerates.

However, the advent of generative AI is poised to disrupt these evaluations by impacting various facets of the VRIO framework.

Generative AI and the De-strategizing of Resources

Even in their nascent stages, generative AIs are already challenging the strategic significance of certain resources and competencies, impacting each dimension of the VRIO framework:

- Value: Generative AIs democratize access to skills previously exclusive to experts, thereby transforming strategic resources into threshold or even commonplace assets, threatening their inherent value. Notably, various generative AI providers, including ChatGPT, offer free versions.
- Rarity: Generative AIs have achieved widespread accessibility. ChatGPT amassed one million users within five days of its November 30, 2022 launch and, a year later, boasted over 180 million users worldwide, generating more than 10 million queries daily. Similarly, Microsoft aims to provide Copilot to all Windows users, while Google has integrated its AI into Pixel smartphones since late 2023.
- Inimitability: The prompts submitted to generative AIs are inherently imitable. You can even ask the AIs themselves to write them. Numerous such services have appeared on the Internet in just a few months.
- Organization: Recognizing the significant impact of generative AIs, major corporations, public institutions, universities, banks, and consulting firms are engaging in profound reflections on the integration of generative AI. These organizations must evolve to allow this innovation to unleash its full potential.

Considering the example of the two strategic resources of prominent consulting firms (consultant excellence and accumulated expertise), the impact is already notable:

- Consultant Excellence: In September 2023, researchers from the Harvard Business School, the MIT Sloan School of Management, the Wharton School at the University of Pennsylvania, and the University of Warwick, conducted an experiment involving 758 BCG consultants (Dell'Aqua *et al.*, 2023). According to this study, consultants who used ChatGPT in their missions achieved results 40% better than those who did not. Moreover, less qualified consultants benefited most from performance gains, while the most qualified saw little improvement. This study suggests that for a consulting firm, it is no longer necessary to recruit exceptional profiles: generative AI can level up all consultants' skills, making them less rare and more easily imitable.
- Accumulated Expertise: New consulting firms harnessing AI are circumventing the accumulated expertise of established competitors. For instance, instead of relying on traditional consultants, several major French companies (including Orange, Galeries Lafayette, L'Oréal, Danone, and EDF) have turned to Descartes & Mauss, a startup founded in 2021, and which claims to be "the first platform entirely based on AI to automate decision-making." According to one of Descartes & Mauss clients, the strategic recommendations are equivalent in quality to those produced by major firms but are obtained much faster, enabling much more responsive strategic management. Descartes & Mauss claims a tenfold reduction in time and a fivefold reduction in cost, suggesting that the strategic resource of accumulated experience from traditional consulting firms may be imitated through AI.

AI has the potential to "de-strategize" resources, significantly diminishing the competitive advantage of established players. These incumbents will find it harder to make this shift because, unlike new entrants, they must first divest the assets that underpinned their success before reallocating investments to AI-based solutions. As often in strategy, painstakingly established entry barriers may become prisons, trapping historical competitors in now obsolete paradigms.

In this general trend of commoditizing resources, particularly those rooted in intellectual capabilities, the situation of European companies is particularly problematic.

Europe Faces a Risk of Strategic Downgrade

The de-strategizing of intellectual resources prompts a shift in the source of competitive advantage: The possession and control of generative AI systems—whether through data ownership or the development of models to process them—now becomes the most strategic of all resources. However, in this arena, Europe finds itself notably disadvantaged in comparison to the United States and China.

Concerned with privacy protection (which is entirely legitimate from an ethical standpoint), Europe significantly restricts access to personal data of its citizens compared to the more permissive approaches of the United States (championing free enterprise) or China (prioritizing state control over the population). Consequently, even if some generative AI players manage to emerge in Europe—such as Mistral AI in France—their learning capacity is hampered by much more restrictive regulations than those faced by their American or Chinese competitors, resulting in a competitive disadvantage. The AI Act adopted by the European Union in March 2024 in the name of protecting individuals is thus viewed by certain observers as impeding the rise of European juggernauts in this domain.

Furthermore, the investment landscape in Europe pales in comparison to global counterparts. For instance, while Mistral AI secured 105 million euros just a month after its May 2023 inception, followed by an additional 450 million euros nine months later, propelling its valuation to 2 billion euros within a year—an unprecedented feat for a European unicorn—OpenAI boasts a valuation of 86 billion dollars. CEO Sam Altman's ambitious announcement of a 7 trillion investment initiative to produce graphics cards, aimed at mitigating dependence on NVidia, underscores the stark difference. Notably, a report from the Artificial Intelligence Commission, presented to President Emmanuel Macron in March 2024, underscores that AI investments in the United States outstrip those in France by a factor of 20, or 3 to 4 times per capita. Given the de-strategizing effect of AI on resources, such a disparity inevitably erodes the competitive edge of European enterprises.

Overall, given that AI is causing the commoditization of longstanding strategic resources, soon replaced by the necessity to possess and control the large AI models themselves, Europe faces a major risk of downgrade. Without the regulatory and financial apparatus to secure technological sovereignty in AI, Europe risks a decline in the strategic standing of its enterprises. Let's hope that European policymakers will have the foresight and will to avoid this fiasco.

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