

ARTIFICIAL INTELLIGENCE AND COMPETITIVE ADVANTAGE: NEW STRATEGIES FOR DIGITAL BUSINESS

New kinds of artificial intelligence like base models and generative models are quickly spreading. Most companies now use generative AI in different business areas, which include marketing and personalized advertising and research and development and customer support and software programming. Some technologies save time on routine tasks, improve forecast accuracy, and help in creating new products and services that were not possible before. The McKinsey Global Institute estimates that generative AI might add an economic value of \$2.6 trillion to \$4.4 trillion each year [1, p. 4]. This offers big growth opportunities for companies that can successfully use these technologies but also creates a larger gap between leaders and followers in digital transformation.

When discussing generative artificial intelligence's potential, it's key to understand that real value appears only when a company successfully uses these technologies in its business. Research shows that companies, which have integrated artificial intelligence into their core processes, known as high-performing AI users, see real benefits. This includes faster innovation and increased business efficiency. The widespread use of generative tools is still new and has more risks. These include questions about the accuracy of results, data security, and intellectual property, which need to be managed carefully.

Research from the McKinsey Global Institute shows that generative artificial intelligence brings value in four key areas. These are customer engagement, marketing, sales, software development, research, and development. Together, these areas create about 75% of the economic impact of generative artificial intelligence. Companies using AI in these fields will achieve strategic and financial goals.

To learn how sustainable advantages form, we can use the "situated AI" framework. This idea suggests that advantage comes not just from the algorithm or model but also from how AI fits into a company's specific practices. These might include unique operational methods and organizational structures and data and procedures and staff skills or even partnerships. Others can copy technologies. However, the unique way in which a company applies AI makes it hard to replace and creates a true advantage. In practice, transformation needs a full approach. Experts from BCG and MIT Sloan Management Review and PwC advise building an AI-focused business plan, altering profit and loss structures and operating models, investing in scalable platforms, and managing ethical and regulatory issues actively. So implementing AI is more than purchasing tech. It needs a complete strategic shift in the company.

Now that we see where generative AI has high potential and how integrating it builds advantages, let us explore the main ways AI becomes a true business advantage. First and mainly, it involves unique data. A company's data is its value and not all data gives the same edge. How unique and specific the data is to a company's processes and how it is transformed into practical results is key. This includes new products, personalized services, and optimized processes. Algorithms even the most advanced can be easily copied by competitors but unique data and its integration form a lasting barrier.

The second way is organizational change with an AI-first operating style. This means AI is fully integrated into the business structure which changes the P&L structure and reviews the roles of IT and business units and creates central or shared platforms for model reuse. Companies that organize processes so AI works in every function gain speed in scaling and profitability.

The third way involves workflows and staff development. AI use is not just about technology but adapting work processes and making roles where AI helps people instead of replacing them. Systematic reskilling is important too. This lets you mix automating routine tasks with high-quality human judgment and creativity.

The fourth method is a strategic project portfolio. Successful companies do not depend on just one project. They combine different types of initiatives. These include no-regret projects with fast ROI and platform solutions for expanding models and experimental initiatives for new product research. This method lets them generate profits while also investing in future opportunities to keep a long-term competitive edge.

We have seen how AI becomes a competitive advantage through data and organizational change and adapted work processes and a strategic project portfolio. The next step is figuring out how companies can apply this in practice to achieve real results. There are three main strategies for digital business.

One strategy is "Data → Platform → Product." This strategy's core is first conducting a detailed audit and classification of data. Companies determine which data holds the most value to them. Then companies

build a platform for storing and processing this data. It lets AI models expand and be reused across functions. On this base, the first products or services are created like AI assistants for customer support, personalized marketing templates and software development tools. This method helps companies achieve fast and clear results while setting the stage for future growth [1, p. 4].

The second strategy is AI-first transformation of operations and P&L. AI becomes integrated into the business model. Therefore, the cost structure is rethought in terms of investments in models, platforms, and analytical infrastructure. The role of IT and business units has changed: from the classical support-service working model, they have moved into partnership. KPIs that reflect the actual value of AI must be set: revenue per employee generated, reduced customer acquisition costs, and automated process percentage using AI. Such transformations increase efficiency while embedding a sustainable and hard-to-replicate competitive advantage [2, pp. 2-6].

The third strategy pertains to "AI situationality." The premise for this strategy is that real advantage can derive only from an appropriate situational adaptation of AI to specific firm conditions. Training and retraining based on internal data, risk-controlling limits, and specific workflows insourcing AI as a complement rather than a substitute; e.g., AI may generate alternatives for decision-making while human judgment retains the final call. This is precisely what would be inappropriate for an imitative rivalry; thus, it guarantees a long-term competitive advantage [3, pp. 2-4].

All this implies that effective AI deployment cannot be based on mere technology acquisition or the unveiling of isolated tools. Instead, it involves a series of strategies encompassing data, platforms, operational transformation, workforce training, and unique processes.

Nonetheless, the implementation of generative AI is not free from risks or ethical concerns. The first relates to model accuracy and safety; generative algorithms can yield inaccurate or nonsensical answers, and if their outputs are not verified before use, such use might mislead into making inappropriate decisions that could harm reputation. Then, the second relates to leakage of sensitive data from training on secret or personal materials. The third relates to intellectual property: who owns the result of content creation the company with the data, the developer of the model, or the end-user? Most disputable is this in such creative areas as R&D and marketing. Fourth come social and human resource impacts: automation of many routine tasks requests the upskilling and reskilling of millions. If a company pays little or no attention to this issue, it risks losing key competencies or demotivating its core team. Fifth comes the issue of regulatory uncertainty and ethical requirements: AI use is to be concurrent with the principles of transparency and fairness, explainability, and data confidentiality. All this places obligations on companies to construct their internal guardrails ahead of time and to seize every opportunity to engage in the formulation of national strategies and rules on AI.

Now that we have looked at AI implementation strategies and the associated risks and ethical considerations, it is worth discussing how companies can organize the implementation process itself and what criteria to use to evaluate its effectiveness. Successful AI implementation typically goes through three main phases:

1. Phase one: diagnosis and audit. At this stage, the company evaluates existing data, processes, and technological infrastructure. An audit is conducted to determine where AI can have the greatest impact, which data is unique and which requires additional processing, and which processes should be automated first.

2. The second phase is quick wins, or MVP projects. Here, the company implements several projects that quickly bring a tangible ROI. These can be experimental services, automation of routine tasks, personalized marketing tools, or AI assistants in customer support. The main goal of this stage is to demonstrate the real value of AI and secure the support of management and teams for scaling.

3. The third phase is scaling and AI-first transformation. At this stage, the company builds platform solutions, extends the use of models to other functions and departments, and adapts the P&L structure and operational processes to the new AI-oriented model of work. It is also important to continuously reskill staff and establish internal rules and ethical standards for the safe use of AI.

This clearly indicates that the quantitative and qualitative success metrics are split. Quantitative metrics include additional revenue due to AI, reduction in time spent on key processes, and improved employee productivity. Qualitative metrics include the degree of user trust in AI decisions, deep integration of models into everyday work processes, and ethical and regulatory compliances.

Thus, the transformation is successful only when the technology choice, structured, phased thinking about data, processes, people, platform solutions, and risk management is in place. Only such an approach leads to real competitive advantages and long-term sustainability in the market.

References

1. McKinsey Global Institute, The economic potential of generative AI: The next productivity frontier, M. Chui et al., June 2023. PDF (68 pp.).
2. Boston Consulting Group, AI-First Companies Win the Future – Executive Perspectives, BCG, June 2025. PDF (18 pp.).
3. Academy of Management Review, A. Kemp, Competitive advantage through artificial intelligence: Toward a theory of situated AI, Academy of Management Review (paper). PDF (42 pp.).