

TECHNOLOGY

# How to Adapt to AI in Strategic Management

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*Developing an effective AI-powered implementation strategy despite cultural and structural barriers.*

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What seems to be happening today more than ever is the increasing role of artificial intelligence (AI) in the world economy. AI is becoming the driving engine of the great transformation in business to make the world economy more productive and efficient. However, we found that many initiatives to develop AI fail. These findings result from

quantitative research among more than 340 executives and senior executives in Germany, Australia, Hong Kong, and Taiwan. These findings show that the cultural and structural barriers and the approach top managers adopt to AI, in which instead of continuous improvement, they look for rapid transformation and replacement, are among the most critical obstacles to developing AI in companies. This article is to help executives to develop an effective AI-powered implementation strategy to resolve these obstacles and reduce the probability of the failure of AI development projects.

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AI is increasingly changing the form of business all over the world.<sup>1, 2, 3</sup> The way of decision-making focusing on gaining insights from data from the lowest to the highest levels of the organization is dramatically changing.<sup>4, 5, 6</sup>

Organizational processes are also becoming increasingly automated to bring extensive savings to companies worldwide and transform customer relationships.<sup>7, 8, 9</sup>

**Google** is a high-tech company that has built all its services based on digital and AI technologies. Google uses AI and automation extensively in its operations to create and provide solutions for developers with Google Cloud’s AI and for every user about research, marketing.<sup>10</sup>

This technology has given Google the extraordinary power to break free from all the limitations of traditional processes and quickly expand the scope of its processes to benefit from unique market opportunities. AI has also provided Google with better opportunities

for continuous learning, allowing this company and customers who use this technology to stay ahead of the competition.<sup>11</sup>

Another successful company that has developed AI at scale is **Alibaba**. The Chinese high-tech company, now ranked among the most valuable companies in the world, is built on a digital core that has removed the limits of traditional business processes and created an incredible impact for this company worldwide.<sup>12</sup> Digital Processes in Alibaba are exploited by algorithms that consider data the primary criterion for informing and supporting internal and customer decision-making to exploit e-commerce sells.<sup>13</sup>

However, despite the business successes that digital and AI have brought to big high-tech companies, our research shows that only 12% of the executives and senior executives participating in this research have included AI initiatives in their corporate strategies. Many of these participants have considered AI a tactical rather than a strategic factor, eventually failing to develop it in their companies. Forty-eight per cent of these executives and senior executives have expressed that the reason for projects failure is **the approach that CEOs have adopted towards AI** in which they consider AI as a rapid transformation and replacement, not a continuous development process<sup>14, 15, 16, 17</sup> as it happens with an MVP.<sup>18</sup> This approach prevents CEOs from developing an effective AI-powered strategy development.

In this article, we are to make evident how the approach needs to change and present solutions for the **cultural, structural, and lack of capability-building barriers** that prevent organizations from moving toward the development of AI. By changing this approach and removing barriers, it will be possible to develop an AI-powered strategy. Organizations can more effectively benefit from the opportunities related to AI to better align with the new requirements of world business. AI-powered strategy is relatively new, with AI based on data and digital core.

The emerging and consolidating positions of high-tech companies such as Google and Alibaba, initially built on a digital core, have caused a new era for businesses worldwide. We call this the new era of AI. Many small companies across the globe have been inspired and supported by companies such as Google and Alibaba. These small businesses are thriving in their new markets with AI's development. All services which customers receive

from small and big companies are based on data analysis algorithms and automated processes. The critical point in these new services is the extraordinary business capability created by these companies.

In particular, data analysis provides these companies with a high predictive power about the future purchases of customers, which can ultimately improve the effectiveness of marketing and sales for these companies. Therefore, to change the approach of many CEOs who see AI as an early-return technology capability, we suggest that they consider AI not only a technological but also a critical ***business capability*** that can influence the expansion of sales and market share.<sup>19</sup> The key point here is to focus on this critical business capability as a dependent variable requiring continuous organizational learning, developing technological infrastructures, and implementing structural and cultural changes.

## Obstacles to Implementing AI

Many executives and senior executives participating in this research have noted that ***bureaucratic or hierarchical structure*** is a roadblock to developing a collaborative culture and forming cross-functional teams with business administration and IT/AI specialists. The research participants have declared that their bureaucratic structures prevent replacing decisions based on the intuition of CEOs with decisions based on data analysis. In contrast, ***flatter structures*** can contribute to the development of AI, in which decisions in the form of algorithms resulting from data analysis should be implemented by first-liners. Therefore, we suggest redesigning the corporate organizational structure to activate the delegation process related to decision-making from higher to lower levels in organizations about algorithms and chatbots.

In addition, delegating authority to first-liners to implement algorithms requires the development of ***risk culture*** in companies. In developing this form of corporate culture, a learning approach should be replaced with a short-term profit-oriented approach. CEOs should consider algorithms as an essential resource of feedback for continuous learning for companies. This risk culture can also improve innovation in the algorithms of the company.

# Developing an Effective AI-Powered Implementation Strategy

With the introduction of AI to a company, strategy development will change, and a new strategy development process will be redefined based on data analysis and digital applications. The first step is to assess human and technological infrastructure capabilities for AI, avoiding pitfalls in data analysis and further elaboration. Secondly, implementing an effective *knowledge management system* is one of the most significant technological and human infrastructures companies need before developing AI. Insights related to data analysis are usually available at operational levels, but the lack of an effective knowledge management system causes these insights to not pass through the bottlenecks of communication channels and are not available to upper levels. Here, developing chatbots and using other AI tools can lead to developing a data-oriented approach in companies and eventually strengthen the data analysis side in AI-powered strategy development.

Another critical pillar of AI-powered strategy development is the digital core knowledge, which refers to the software on which algorithms derived from data analysis are applied. This step creates a more scientific baseline for decision-making, and algorithms for hybrid automated processes are presented. It is advisable to avoid software and technology choices that can act on the current CEO's perception and research of rapid transformations and adoptions. The accelerated decision about technologies could create errors in the data to be utilized in strategy development and delays in effective AI implementation. AI requires processes redesigned to get advantages of automation (AI and RPA) along critical processes using chatbots (Customer service, Supply chain, HR,). This part of AI implementation is the opportunity to make the participation of internal resources effectively, especially those at the bottom line, to work on RPA coding and algorithmics. This can happen if a hybrid change process is allowed, which, under an effective and active sponsorship from the top, can remove the fear of technology from internal resources. The CEO's role is to communicate technology's scope and benefits with employees. As said earlier, a bottom-up approach with employees' participation and decision-making power can lead to minor resistance and create a culture which, in addition to considering experimentation, can better align people and technology, leading to a successful implementation.

# In Conclusion

AI will transform and enhance decision-making and organizational processes. These transformations will bring extensive benefits to companies. Companies that use this emerging technology have a higher competitive advantage when compared to companies that only focus on one of the two aspects of machines and humans. The change in the approach of CEOs as well as structural and cultural changes will become a basis for developing an effective implementation strategy to better respond to new needs. This AI-powered Business strategy, relying on data analysis and AI and digital technology, has a high potential to respond effectively to the emerging needs of today's evolving business environment.

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