



# ARTIFICIAL INTELLIGENCE IN STRATEGIC MARKETING DECISION-MAKING: PROMISING POTENTIAL OR UNFULFILLABLE EXPECTATION?

# The power of AI in marketing: from the operational to the strategic decision-making level

Chatbots in customer support, product recommendation systems, social media sentiment analysis – the applications of artificial intelligence (AI) in marketing are manifold. To date, AI usage in marketing practice has focused primarily on automating processes at the operational level and gaining insights from big amounts of data to make more efficient and effective decisions.

With increasing data availability and computing capacity, companies are further intensifying their efforts to use smart algorithms to generate business value. As the capabilities of intelligent machines grow, the boundaries of AI in decision-making are shifting from the operational to the strategic level. Consequently, there is a growing expectation in academia that AI has the potential to support, augment, or even replace marketing managers in strategic-level decision-making. So, are machines about to decide which markets a company addresses, which products are launched on the market, or which communication and pricing strategy is pursued? Will there be "machines in the C-suite" and how would humans collaborate with them?

## Towards collaboration between humans and machines at the strategic level

Previous studies indicate that managers generally accept giving algorithms some weight in managerial decisions, but they still want to keep a certain level of control. However, the question of how such a human-machine collaboration (HMC) on a strategic level might look like concretely, e.g., which tasks could be assigned to machines and which to humans, remains largely unanswered.

# Relevant research streams and selected publications



e.g., Davenport et al., 2020: How artificial intelligence will change the future of marketing Al in decisionmaking

e.g., Jarrahi, 2018: Artificial intelligence and the future of work: Human-Al symbiosis in organizational decisionmaking Algorithm aversion

e.g., Burton et al., 2019: A systematic review of algorithm aversion in augmented decision-making

To gain initial insights into this relatively unexplored research field, we undertook qualitative interviews with 14 experts in the field of marketing and corporate strategy. The interviewees included marketing managers, marketing consultants, and data science experts from various industries, and marketing academics.

#### We talked about

- Changes in strategic marketing decisions over the last 10 years
- Current use of AI in marketing decisions on an operational and on a strategic level
- Expectations and preferences for the future of decision-making
- Possible obstacles and drivers of using AI in strategic marketing decision-making

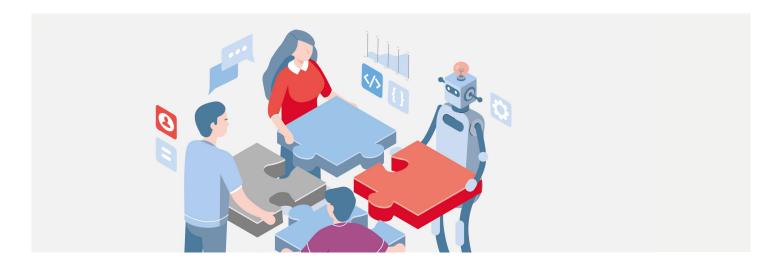
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#### Initial insights from qualitative expert interviews

- Looking back: Over the last 10 years, marketing decisions seem to have become more data-driven, with fewer decisions being made purely based on intuition and gut feeling. The immense availability of data, however, also leads to excessive strain on decision-makers.
- In operational marketing, AI is already frequently used in the form of tools with the aim of process automation or analyzing large amounts of data (e.g., product recommendations in e-commerce, chatbots in customer support or lead scoring in sales).
- 3. The experts interviewed currently see AI mainly as a tool for data analysis or as a forecasting tool for decision support based on descriptive or partially predictive analyses. However, the interview partners see potential for broader use cases in decision-making at the strategic level in the sense of augmented decision-making.

"We're not there yet, but we're on the threshold."

- 4. Not all decisions are the same: Depending on the type of marketing decision in terms of its degree of standardization and the available database, decisionmakers see varying degrees of potential for the use of AI in strategic decision-making.
- 5. For the future, most respondents see scenarios of hybrid decision processes in which AI takes over ever larger parts of the decision-making process from human counterparts (including assessment of options, choice of an option, assessment of results). However, there is dissent about the extent to which AI could and should take over the final decision, i.e., the choice between options for action.
- 6. Decision-makers' personal acceptance of AI in strategic decision-making processes varies widely, opening up a field of tension between the fear of being replaced, the excitement of being augmented through AI to reach further, or even the anticipation of being able to focus on other tasks when machines (partially) take over decision-making.



# COMING UP: International survey of 500 high-level executives

In the next project phase, we used a standardized interview study to assess the current status quo of human-machine collaboration in strategic marketing decision-making as well as managers' expectations and desires for future developments. We surveyed 500 high-level executives from the 2,000 biggest public companies in the world, listed in the Forbes Global 2000, via computer-assisted telephone interviews. Initial results show that 56% of the companies surveyed already have use cases for AI in strategic decisions, and that most managers would prefer to give even more weight to intelligent algorithms in the future, as long as humans keep the upper hand.

#### Project team

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## **COMING UP NEXT:**

NIM RESEARCH REPORT on the findings from qualitative expert interviews and the international quantitative study with high-level executives