From Insight to Impact: How AI Tools Transform Managerial Practice in Czech Companies

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This study investigates the practical applications of artificial intelligence (AI) in managerial work, with a focus on how tools such as large language models (LLMs) support the personal and professional development of managers. It explores how AI is used for decision-making, information analysis, and communication, and assesses its perceived impact on managerial knowledge, skills, and productivity. The research combines a comprehensive literature review with empirical data from a structured survey of 42 managers in Moravian companies, primarily in the Czech Republic. The study evaluates the frequency, purpose, and tools used in AI-assisted management practice. AI tools are frequently used by managers, especially for information summarization, meeting preparation, and text generation. ChatGPT (GPT-4) is the dominant tool, with most respondents reporting weekly or daily use. The majority perceive AI as beneficial, with an average Likert score of 7.86 regarding its positive impact on performance. Limitations include the localized sample, rapid research timeframe, and fast-paced AI evolution, which may affect long-term generalizability. The study offers practical insights into how AI enhances managerial routines and leadership development. This paper provides rare, localized empirical evidence on AI adoption in management, contributing to a fast-growing global research area.

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1 Introduction

The rapid advancement of artificial intelligence (AI) technologies – particularly large language models (LLMs) – is significantly transforming how decisions are made and how leadership is exercised in contemporary organizations. In this dynamic environment, managers are increasingly expected to leverage AI tools not only to streamline operations but also to develop their soft skills, enhance strategic thinking, and improve personal productivity.

This study aims to explore the practical applications of artificial intelligence (AI) in management, focusing on how tools like large language models (LLMs) support the personal and professional development of managers through decision support, data analysis, and coaching. By capturing real-world insights from Czech managers, it contributes to the global conversation on human-AI collaboration and highlights both the benefits and challenges of AI integration in leadership roles.

2 Theoretical Background / Literature Review

In the era of digital transformation, artificial intelligence (AI) is fundamentally reshaping managerial functions and leadership paradigms. Several authors emphasize the transformative role of AI in strategic leadership. Huber and Alexy (2024) argue that AI redefines leadership by enabling data-driven decision-making, shifting from intuition-based leadership to an analytical approach supported by predictive models. Similarly, Oppioli et al. (2023) provide a structured review confirming AI's capacity to improve managerial decisions by offering faster, more accurate insights based on data modelling. In the context of leadership development, Bhusan and Jain (2024) propose that AI tools, such as LLMs, serve not only as task enhancers but also as catalysts for developing emotional intelligence and reflective leadership. Dwivedi (2025) supports this view, advocating for the integration of emotional and artificial intelligence in fostering human-AI synergy in executive roles. Organizational agility is another recurring theme. Atienza-Barba et al. (2024) analyse how AI enhances agility by improving adaptability and responsiveness in fast-changing business environments. This aligns with Arar et al. (2025), who, through an integrative systematic review, show that AI contributes significantly to leadership practices across educational and corporate sectors by augmenting planning and forecasting capabilities. A more empirical perspective is offered by Jaboob et al.

(2025), who explore how digital leadership mediates the successful adoption of AI in strategic decision-making. Karakose and Tülübas (2024) also note that the use of AI in leadership – initially observed in school management – extends effectively to business settings, especially for improving situational awareness and data literacy among managers. From a bibliometric standpoint, studies by Pacheco-Velázquez et al. (2023) and Mesa Fernández et al. (2022) indicate a rising academic focus on AI's application in management, with keywords such as leadership, decision support, and organizational intelligence showing exponential growth since 2020. Patra et al. (2024) confirm this through network analysis, identifying a strong trajectory of AI research in business contexts. Finally, several studies examine the practical use of specific tools. Akpan and Razavi (2025) highlight the educational shift from traditional simulations to AI-powered generative tools in business schools, signalling a parallel evolution in professional settings. Nguyen and Shaik (2024) illustrate how localized AI (like ChatGPT) improves corporate leadership by enhancing real-time language support, coaching, and cross-cultural communication. Together, these studies affirm that AI is not only reshaping the tools available to managers but also the very nature of leadership itself. The literature provides a robust theoretical lens for understanding the findings of this paper, particularly in relation to the Czech business environment.

3 Methodology

The methodology of the paper combines both theoretical and empirical approaches. First, the authors conducted a comprehensive literature review to establish the theoretical foundation concerning the use of artificial intelligence (AI) in management. This was followed by empirical survey-based research, targeting managers in Moravian companies. The research question (RQ1) has been formulated: How are artificial intelligence (LLMs) tools used (frequencies, reasons, tools) by managers in Moravian companies, and what is their perceived impact on managerial knowledge, skills, and productivity?

The data source is a Google forms survey conducted in early 2025 with the help of students of the Bachelor of Economics and Management at the Moravian Business College Olomouc (MVSO). The survey is aimed at young respondents with a strong interest and engagement in management. The structure of the data obtained can be characterised as follows: the 42 respondents were mainly young managers from the

Olomouc region (Czech Republic), of whom 64% were women and 36% men. 31% of the respondents work in a family business. 64% work in a medium-sized company, 19% in a small company and 12% in a large company. 52% of respondents work in a global, multinational or foreign company, 48% in a national, state, regional or own company. In terms of branch, 31% of respondents focus on marketing, 19% on finance and 10% on trade. In terms of interest in different areas of management, most respondents are interested in marketing management (64%), financial management (55%), strategic management (41%), international management (29%) and human resources management (27%). Less than a quarter of respondents are interested in other areas.

4 Results

The chapter presents the main findings of the research focused on the use of artificial intelligence (LLMs) in the management of Moravian companies. Based on empirical data from a questionnaire survey of young managers, it provides an overview of the frequency and reasons of using AI tools, the most common tools in management practice, and the perceived impact of AI on respondents' knowledge, skills and productivity. The results provide valuable insight into the current state of AI adoption in the managerial environment and help identify the key benefits and limitations of these technologies. These findings are visually supported by graphs illustrating key trends and relationships in the use of AI in management.

The pie chart (see figure 1) illustrates how often individuals use artificial intelligence tools such as ChatGPT, Grammarly, and DeepL. The majority of respondents (43%) use these tools several times a week, while 19% use them daily. A smaller portion (10%) reports using AI tools several times a day. Occasional users account for 14%, whereas those using AI tools once a week and several times a month each make up 7% of the responses. Notably, none of the respondents indicated that they never use AI tools. The results show a relatively high frequency of use of AI tools, with almost 1/3 (29%) using these tools once or more per day. More than 3/4 (79%) of respondents stated they use AI at least once a week.

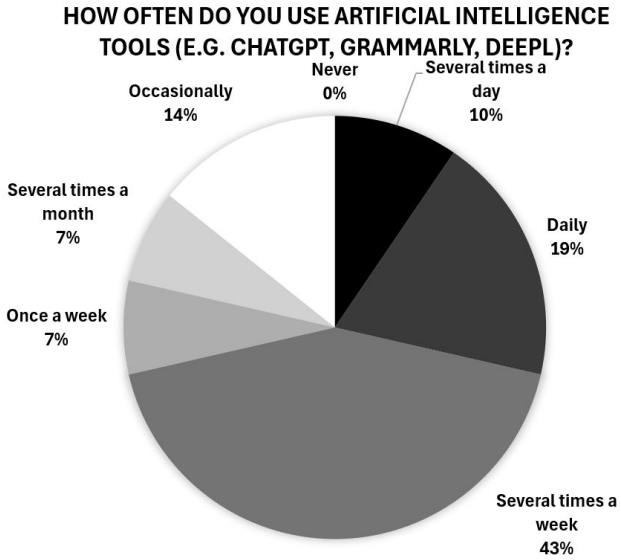

Figure 1: Frequency of AI Tool Usage
Own processing

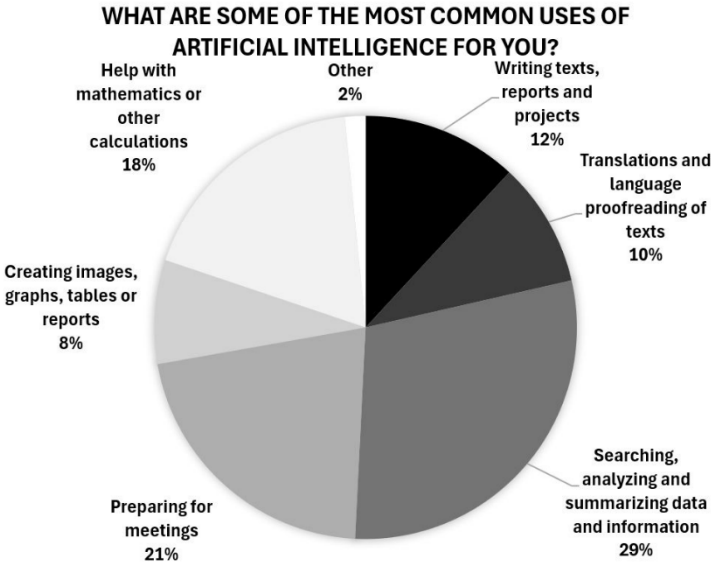

Figure 2: Common Uses of Artificial Intelligence
Own processing

The pie chart (see figure 2) illustrates the most common applications of artificial intelligence among users. The primary use is for searching, analysing, and summarizing data and information (29%). Preparing for meetings is another significant use case, accounting for 21%. AI is also commonly used for mathematical calculations (18%), writing texts, reports, and projects (12%), and translation or language proofreading (10%). Other uses include creating images, graphs, tables, or reports (8%), while a small portion (2%) falls under the "Other" category. In the "Other" category, respondents cited its use for learning, explaining unfamiliar concepts and providing practical examples or case studies.

The pie chart (see figure 3) displays the distribution of AI tools and language models used by respondents. The dominant tool is ChatGPT (OpenAI – GPT-4), utilized by 70% of users. Other notable AI tools include DeepL Write/Translator (8%), Grammarly (4%), DALL·E (5%), and Google Gemini (3%). Additionally, Microsoft Copilot (3%), DeepSeek (3%), and Notion AI (2%) are in use. A smaller percentage (2%) of users employ Elicit, NotebookLM, and Litmaps for AI-related tasks.

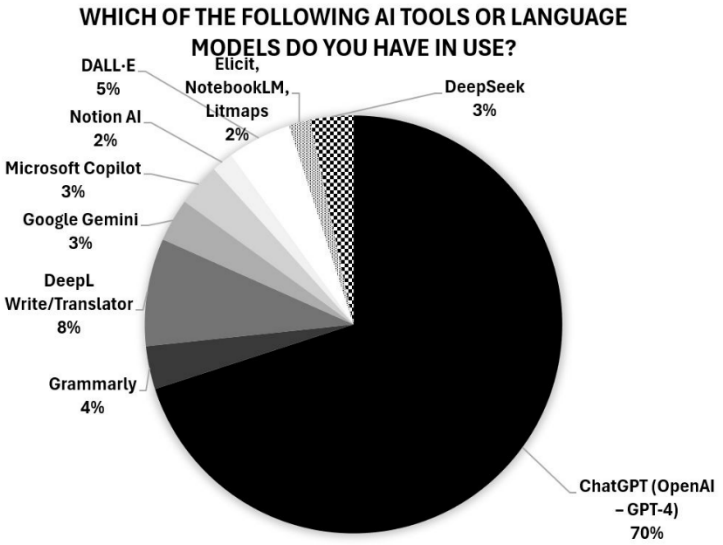

Figure 3: AI Tools and Language Models in Use
Own processing

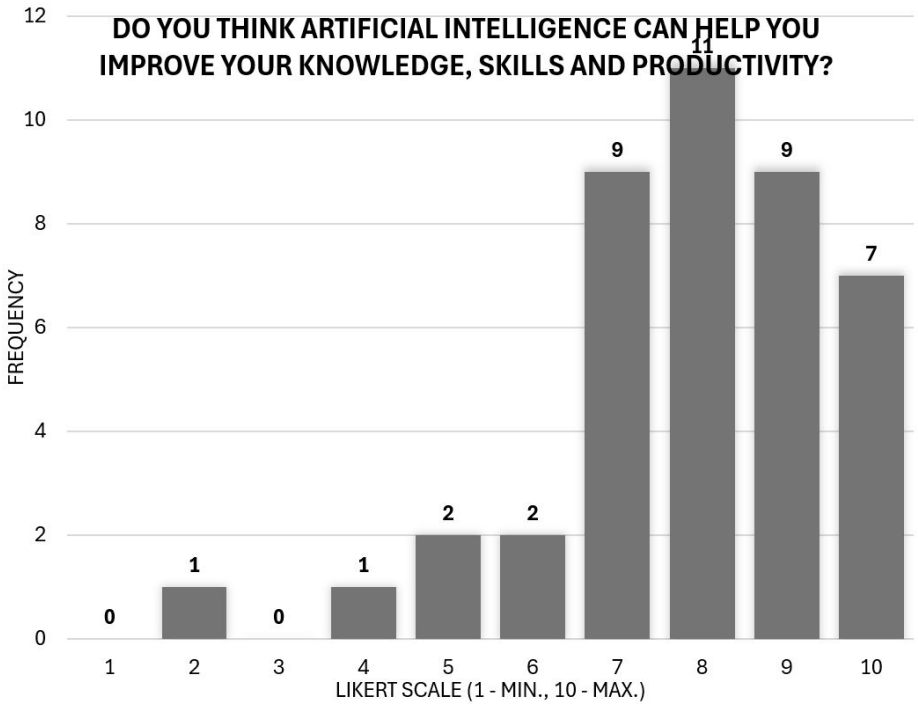

Figure 4: Perceived Impact of AI on Knowledge, Skills, and Productivity
Own processing

The bar chart (histogram) illustrates respondents' opinions on whether artificial intelligence can enhance their knowledge, skills, and productivity, using a Likert scale from 1 (minimum) to 10 (maximum) – see figure 4. The highest frequencies are observed at 7 (11 responses), 8 (9 responses), and 9 (9 responses), indicating strong agreement with AI's positive impact. Additionally, 10 (7 responses) further supports this sentiment. Lower ratings (1-4) received minimal responses, with only a few respondents rating AI's impact below 5. This suggests an overall positive perception of AI's benefits in improving knowledge and efficiency.

Using fuzzy logic, we can approximate the probabilistic allocation:

- Mostly agree (7-9) → 0.75 (dominant affiliation)
- Strongly agree (9-10) → 0.25 (partial affiliation)

The mean of 7.857 means that the respondent believes that artificial intelligence will help improve knowledge, skills and productivity, but not with complete certainty.

A typical respondent of the study is a young manager (woman) from the Olomouc region, working in a medium-sized company with international operations (not family-owned) and with a professional focus on marketing management. This manager uses ChatGPT LLM several times a week to search, analyse and summarise data and information, and is particularly confident that AI will help her improve her knowledge, skills and productivity.

5 Discussion

The results of the study clearly confirm that artificial intelligence (AI) tools are increasingly embedded in the daily managerial practices of young Czech professionals, particularly in tasks involving information processing, decision support, and communication. This high adoption rate (with 79% using AI at least weekly and 29% daily) aligns with broader global findings on the integration of AI in organizational workflows. ChatGPT (GPT-4) emerged as the dominant tool, which reflects trends discussed by Nguyen and Shaik (2024), who emphasize the utility of conversational AI for leadership adaptation in dynamic corporate contexts. This dominance also supports the claim by Akpan and Razavi (2025) that generative AI is transforming professional decision-making and business education by enabling fast, interactive analysis. The primary functions of AI – data search, meeting preparation, and report generation – mirror findings from Mesa Fernández et al. (2022) and Patra et al. (2024), who note that these are among the most rapidly growing application areas in management science. The heavy reliance on natural language processing tools (e.g., ChatGPT, Grammarly, DeepL) supports Pacheco-Velázquez et al. (2023), who emphasize the increasing convergence between communication-based leadership and AI tools.

Regarding perceived impact on knowledge, skills, and productivity, the average Likert score of 7.857 suggests cautious optimism. Most respondents view AI as beneficial, though a minority remains uncertain. This nuanced view is consistent with Dwivedi (2025) and Bhusan and Jain (2024), who both suggest that AI can enhance human capabilities, but its long-term impact on leadership development depends on critical reflection, emotional intelligence, and training. Additionally,

Huber and Alexy (2024) point out that the shift to AI-supported strategic leadership demands a rethinking of traditional leadership models. Our results, particularly the use of AI for meeting preparation and strategic communication, affirm this evolution from task execution to AI-augmented cognition. Finally, Polat et al. (2025), Arar et al. (2025), and Camilleri (2024) argue that ethical and contextual considerations are increasingly relevant. Camilleri emphasizes that AI governance must align with principles of social responsibility and transparency, especially in leadership contexts where decisions affect broader organizational ecosystems.

6 Conclusions

The research confirms that AI tools play a significant role in managerial tasks, particularly in data analysis, preparation for meetings, and decision-making support. AI adoption is relatively high, with most managers using it at least weekly. While ChatGPT is the dominant tool, other AI applications (e.g., DeepL, Grammarly, and DALL·E) contribute to specific management functions. There is strong agreement (but not absolute certainty) that AI enhances knowledge, skills, and productivity. The study highlights the practical implications of AI in management.

RQ1 has been answered like that: The findings show that managers in Moravian companies frequently use AI tools, particularly for data handling and communication – 79% use AI weekly, and 29% daily. ChatGPT (GPT-4) is the dominant tool (70%), followed by DeepL, Grammarly, DALL·E, and others. Main uses include information analysis (29%), meeting preparation (21%), and writing or translation tasks. The average Likert score of 7.857 indicates a strong, though not absolute, agreement that AI improves managerial knowledge, skills, and productivity.

The originality of this study lies in its combination of a current theoretical framework with primary empirical data gathered from practicing managers in Czech companies. It contributes uniquely to the emerging field of AI-enhanced management by providing localised insights into how AI tools, particularly large language models, are integrated into everyday managerial activities. The findings have practical implications for both practitioners and educators, as they highlight not only the frequency and purpose of AI use but also managers' perceptions of its impact on productivity, decision-making, and skill development. However, the study's

limitations include a small and regionally concentrated sample, a short research timeframe, and the rapidly evolving nature of AI technology, which may limit the long-term relevance of specific tools mentioned. Future research should adopt broader and comparative designs, explore changes over time, and assess the ethical, cultural, and psychological dimensions of AI use in leadership and organizational contexts.

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