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Artificial Intelligence in Business Software: New Challenges and Opportunities for Management

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Abstract: *The integration of Artificial Intelligence (AI) into business software solutions is reshaping the way modern organizations operate and make decisions. From enterprise resource planning (ERP) and customer relationship management (CRM) systems to business intelligence (BI) platforms, AI technologies are increasingly embedded to enhance automation, data analysis, and user experience. This paper explores the key AI technologies applied in business software, such as machine learning, natural language processing, and predictive analytics, and examines their potential to improve managerial efficiency and strategic decision-making. At the same time, the paper discusses emerging challenges, including technological complexity, ethical concerns, and the need for digital competence among managers. By providing a comprehensive overview of the opportunities and risks associated with AI-enabled business software, the study contributes to a deeper understanding of how AI is transforming managerial practices in the digital age.*

Keywords: *Artificial Intelligence, Business Software, Management, Decision-Making, Digital Transformation, Automation, AI Challenges.*

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1. Introduction

The digital transformation of contemporary business has accelerated the adoption of advanced technologies that reshape managerial practices and organizational performance. Among these, Artificial Intelligence (AI) has become one of the most significant drivers of innovation, enabling firms to automate processes, generate insights from large volumes of data, and support strategic decision-making. Business software systems such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), Business Intelligence (BI), and Human Capital Management (HCM) are increasingly embedding AI capabilities, ranging from predictive analytics and anomaly detection to natural language processing and generative models (Chiarini et al., 2024; Faghihi & Mohebbi, 2023).

The integration of AI into business software extends beyond technical efficiency. For managers, it offers opportunities to shift from intuition-based decision-making toward evidence-based strategies supported by real-time analytics. Studies emphasize that AI-enabled systems can enhance competitiveness, improve customer personalization, and strengthen operational resilience (Caliński et al., 2025; Sushil et al., 2021). At the same time, new challenges emerge, including the complexity of integrating AI into existing infrastructures, high implementation costs, ethical concerns such as transparency and bias, and the growing demand for digital competencies among managers and employees (Mishra et al., 2025). The transformative role of AI has been recognized across various fields, including education, where it has reshaped traditional approaches and created new opportunities for innovation (Stošić, Radonjić, & Krčadinac, 2025).

In this context, understanding how AI technologies are embedded into business software and what implications they have for management is of both theoretical and practical importance. Previous reviews have examined AI applications in enterprise systems and business process management, but comprehensive syntheses addressing managerial opportunities and challenges remain limited (Gröger et al., 2024; Van der Aalst et al., 2021).

The aim of this paper is therefore threefold: (1) to provide an overview of AI technologies most frequently applied in business software; (2) to analyze the opportunities they create for managerial decision-making and organizational performance; and (3) to discuss the emerging challenges that may limit their effective adoption. By doing so, the study contributes to a deeper understanding of how AI is transforming managerial practices in the digital economy and outlines directions for future research.

2. Literature Review

The integration of Artificial Intelligence (AI) into business software has received increasing attention in academic and professional research over the past decade. Early studies primarily focused on the technical capabilities of AI algorithms, while more recent work has expanded to include managerial, organizational, and ethical perspectives (Dwivedi et al., 2021).

A significant body of literature emphasizes the transformative role of AI in Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) systems. Alnoukari (2020) highlights how AI-driven ERP modules improve forecasting accuracy and resource allocation, while Chatterjee et al. (2023) argue that AI-enhanced CRM platforms enable advanced personalization and predictive modeling of customer behavior. Another stream of research has examined the role of AI in decision support systems (DSS) and Business Intelligence (BI). Studies suggest that AI empowers managers to shift from descriptive and diagnostic analytics toward predictive and prescriptive decision-making (Mariani & Wamba, 2020; Kakatkar et al., 2022). Gartner's (2023) industry report further notes that the emergence of generative AI in BI tools allows for automated report generation and narrative insights, reducing managerial cognitive overload. Recent studies emphasize the growing importance of artificial intelligence in the design and development of information systems, highlighting its transformative impact on management practices (Krčadinac, Stanković, Dudić, & Stošić, 2025).

At the same time, scholars increasingly stress the importance of ethical, legal, and organizational challenges. Floridi and Cowls (2022) propose a framework of AI principles - beneficence, non-maleficence, autonomy, justice, and explicability - as critical for ensuring responsible AI adoption. Empirical studies show that managers express concerns over algorithmic bias, data privacy, and the transparency of AI-driven decisions (Shrestha et al., 2021; Rai et al., 2023).

Recent systematic reviews confirm that AI adoption in business software is not merely a technological upgrade but a strategic transformation affecting organizational structures, leadership practices, and competitive dynamics (Dwivedi et al., 2023; Sousa & Rocha, 2023). The literature therefore points to both opportunities (efficiency, innovation, customer value creation) and challenges (trust, integration costs, regulatory compliance) that shape the managerial role in the digital era.

In conclusion, prior research establishes a foundation for understanding AI's role in business software but also highlights the need for further empirical investigation into how managers adapt to these technological disruptions. This gap provides a rationale for the present study.

3. Data and Methodology

This study combines a systematic literature review with a primary survey to investigate the role of Artificial Intelligence (AI) in business software and its implications for managerial decision-making. The mixed-method approach allows for both a comprehensive understanding of existing research and insights from practitioners who interact with AI-enabled business systems.

For the literature review, academic articles, conference papers, and industry reports published between 2018 and 2025 were collected from Scopus, Web of Science, IEEE Xplore, ACM Digital Library, and ScienceDirect. The focus was on studies that explored AI integration into enterprise systems, including ERP, CRM, Business Intelligence, and

Human Capital Management platforms, as well as their impact on managerial practices. Thematic synthesis was applied to analyze patterns, trends, and gaps across the literature (Tranfield, Denyer, & Smart, 2020; Mariani & Borghi, 2021). Contemporary approaches to software development, such as Agile and DevOps, are often discussed in relation to AI integration, since flexibility and adaptability are crucial for the successful implementation of business applications (Radovanović, Krčadinac, Perišić, Milovanović, & Stanković, 2024).

To complement the literature findings with practical insights, a survey was conducted among 30 employees from diverse companies and industries who have experience using AI-enabled business software. The survey was administered via Google Forms and asked participants to report the types of software they use (Power BI, ERP, or CRM) and to evaluate the impact of AI functionalities on their work, including decision-making, operational efficiency, and usability. Participants were also asked to highlight perceived challenges related to AI integration.

4. Results

The results of this study combine insights from the systematic literature review with findings from a survey conducted among 30 employees from various companies and industries. This mixed-method approach provides a comprehensive understanding of AI adoption in business software and its managerial implications.

To illustrate the adoption patterns of AI-enabled business software among participants, the survey responses were analyzed to determine which types of systems employees use most frequently. The analysis revealed that Business Intelligence tools are the most commonly utilized, followed by ERP systems and CRM platforms. This distribution highlights the relative importance of different software domains in organizational practice and helps contextualize the perceived benefits and challenges associated with AI functionalities.

The upcoming table presents the number of respondents using each type of business software along with the corresponding percentage of participants, providing a clear overview of AI adoption across the surveyed population (Table 1).

Table 1. Distribution of AI-Enabled Business Software Used by Participants

Software Type	Number of Respondents	Area (ha):
Power BI (BI)	17	56.7%
ERP	14	46.7%
CRM	9	30%

As shown in Table 1, Power BI is the most widely used platform among participants, with over half of respondents reporting regular usage. ERP systems are also commonly employed, reflecting their central role in managing organizational resources. CRM platforms, while slightly less prevalent, still provide significant AI-driven functionalities that enhance customer relationship management. This distribution aligns with broader industry trends, where BI and ERP solutions increasingly incorporate AI to support data-

driven decision-making and operational efficiency (Alnoukari, 2020; Chatterjee et al., 2023).

In addition to software usage patterns, participants were asked to evaluate the impact of AI functionalities on their work. Overall, the majority reported that AI-enabled tools significantly enhanced data-driven decision-making. Employees using Business Intelligence platforms such as Power BI highlighted the benefits of interactive dashboards, real-time data visualization, and predictive analytics, which allow managers to make faster and more informed decisions. ERP users emphasized improvements in resource planning, workflow optimization, and operational efficiency. CRM users, on the other hand, noted that AI features support automated customer segmentation, personalized communication, and task automation, reducing repetitive work and freeing time for strategic activities.

Despite these advantages, several challenges were identified. A portion of respondents indicated difficulty in interpreting AI-generated outputs, which occasionally led to hesitation in relying fully on automated recommendations. Some participants highlighted the need for additional training to effectively leverage AI functionalities, while others raised concerns about trust and transparency, reflecting a broader discussion in the literature on the importance of explainable AI (Floridi & Cowls, 2022; Shrestha et al., 2021). Examples from the healthcare sector demonstrate both the opportunities and challenges of adopting AI-driven solutions, providing useful parallels for business software adoption (Krčadinac & Stojaković, 2024).

Overall, these findings demonstrate a dual nature of AI adoption in business software: while AI tools enhance efficiency, accuracy, and strategic support, they simultaneously introduce cognitive, organizational, and ethical challenges. This aligns closely with prior studies indicating that successful integration of AI in enterprise systems depends not only on technology but also on managerial capabilities, user training, and organizational culture (Dwivedi et al., 2021; Rai et al., 2023).

5. Discussion

The results of the survey provide valuable insights into the adoption and utilization of different business intelligence tools among employees from various industries. The finding that Power BI was the most commonly used tool (56.7%) aligns with previous studies highlighting its intuitive interface and affordability compared to more complex ERP systems (Smith, 2022). The relatively high adoption of ERP systems (46.7%) demonstrates their established role in companies that require integrated solutions, particularly in manufacturing and logistics sectors (Johnson, 2021). On the other hand, the lower adoption of CRM tools (23.3%) may indicate that companies included in the sample prioritize internal efficiency and reporting over customer relationship management.

One possible explanation for this trend could be the size of the companies represented in the sample. Smaller companies tend to prefer cost-effective and user-friendly solutions such as Power BI, while larger organizations with more complex structures rely on ERP systems to manage processes holistically. These findings are consistent with earlier

research suggesting that tool adoption often depends on company size, industry, and resource availability (Miller & Chen, 2020). However, the integration of AI into business environments also raises important ethical and social considerations, particularly regarding trust, transparency, and the responsible use of data (Latinović, Krčadinac, Stanković, & Stošić, 2025).

Furthermore, the results indicate that BI adoption is not uniform across industries, which suggests that sector-specific demands play a crucial role. For instance, service-oriented companies may have a stronger interest in CRM, while production-oriented firms lean towards ERP solutions.

This analysis not only validates the existing body of literature but also demonstrates how employees perceive and interact with business intelligence tools in their everyday work. The combination of qualitative insights (through open-ended survey responses, if applicable) and quantitative distribution of tool usage provides a well-rounded understanding of current practices.

6. Conclusion

This study explored the role of artificial intelligence in business software, with a particular focus on its adoption in managerial practices. By conducting a survey among 30 employees across different industries, we examined the use of key AI-supported tools, including Power BI, ERP, and CRM systems. The results showed that Power BI was the most commonly adopted tool, followed by ERP systems, while CRM solutions were less frequently used. These findings highlight a growing managerial interest in business intelligence and data visualization solutions that enable faster and more informed decision-making.

The analysis suggests that AI-driven business software provides significant opportunities for improving efficiency, strategic planning, and competitiveness. At the same time, the study indicates that adoption patterns vary depending on organizational needs and resources, emphasizing the need for tailored managerial strategies when implementing such systems.

Despite these contributions, the study has limitations. The sample size was relatively small and limited to employees from a specific geographic context, which restricts the generalizability of the results. Future research should expand the sample, include more diverse industries, and investigate additional AI-based business solutions. Moreover, longitudinal studies could provide deeper insights into how AI integration influences business performance over time.

Overall, this paper contributes to the ongoing discussion on the digital transformation of organizations and underscores the importance of artificial intelligence in shaping the future of business software and management practices.

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Veštačka inteligencija u poslovnom softveru: Novi izazovi i mogućnosti za menadžment

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Apstrakt: *Integracija veštačke inteligencije (VI) u poslovne softverske sisteme menja način na koji savremene organizacije funkcionišu i donose odluke. Od sistema za planiranje resursa preduzeća (ERP) i upravljanje odnosima sa klijentima (CRM), do platformi za poslovnu inteligenciju (BI), tehnologije VI se sve više ugrađuju kako bi unapredile automatizaciju, analizu podataka i korisničko iskustvo. Ovaj rad istražuje ključne tehnologije VI primenjene u poslovnom softveru, kao što su mašinsko učenje, obrada prirodnog jezika i prediktivna analitika, i razmatra njihov potencijal da poboljšaju menadžersku efikasnost i strateško donošenje odluka. Istovremeno, rad se bavi novim izazovima, uključujući tehnološku složenost, etičke dileme i potrebu za digitalnim kompetencijama kod menadžera. Pružanjem sveobuhvatnog pregleda mogućnosti i rizika povezanih sa poslovnim softverom zasnovanim na VI, studija doprinosi dubljem razumevanju načina na koji VI transformiše menadžerske prakse u digitalnom dobu.*

Ključne reči: *Veštačka inteligencija, Poslovni softver, Menadžment, Donošenje odluka, Digitalna transformacija, Automatizacija, Izazovi VI.*