

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE ECONOMIC PRODUCTIVITY OF ENTERPRISES

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Abstract: *AI is transforming business processes through automation, big data analytics and supply chain optimisation, contributing to increased efficiency and competitive advantage in the global marketplace. The aim of this paper is to explore and systematise knowledge on the application of artificial intelligence in the business sector, with a particular focus on its impact on the economic productivity of companies. By analysing the case study of Amazon, the research seeks to identify the key benefits and challenges associated with the implementation of AI technologies, and to provide concrete guidelines for their optimal use to improve overall business performance and competitiveness. The study examines key AI implementation strategies at Amazon, including algorithmic recommendations, predictive analytics and robotic logistics operations. It also analyses the challenges of implementing AI technology, such as ethical concerns, data privacy, and integration costs. The research findings provide insight into best practices and guidelines for the optimal use of AI in the business sector, with the aim of improving business performance and ensuring long-term business sustainability.*

Keywords: *artificial intelligence, economic productivity, business efficiency, Amazon.*

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INTRODUCTION

Artificial Intelligence (AI) is a revolutionary technology that is changing the way modern businesses operate. Its application in modern business is expanding, from business process optimisation and resource management to predictive analytics and user experience personalisation. Modern organisations that adopt AI-based solutions gain a significant competitive advantage by making faster and more accurate decisions, reducing operational costs and increasing productivity.

The subject of this paper is to analyse the impact of AI on the economic productivity of organisations in the modern business environment. Particular attention is paid to the ways in which AI is transforming business processes, influencing strategic decision making, improving resource efficiency and enabling competitive advantage in the global marketplace.

RESEARCH AIM AND METHODS

The research was conducted using the case study method, along with qualitative analysis of secondary data from relevant academic and professional sources. In addition, a comparative analysis of existing studies in the field of the application of artificial intelligence in business systems was conducted, with a focus on productivity. The expanded literature includes works by authors such as Davenport and Ronanki (2018), who point to practical models of AI implementation in organisations, and Morande et al. (2023), who analyse the impact of the potential of artificial intelligence for entrepreneurial success.

The aim of this paper is to explore and systematise knowledge on the application of artificial intelligence in the business sector, with a particular focus on its impact on the economic productivity of companies. By analysing the case study of Amazon, the research seeks to identify the key benefits and challenges associated with the implementation of AI technologies, and to provide concrete guidelines for their optimal use to improve overall business performance and competitiveness.

The theoretical basis for the formulation of the hypotheses stems from contemporary approaches to the knowledge economy and technological development, according to which artificial intelligence acts as a key factor in improving organisational productivity and efficiency. Modern production theory, based on the work of authors such as Brynjolfsson and McAfee (2014), emphasises the role of digital technologies in

transforming business processes, while organisational theory suggests that the implementation of IT solutions improves decision-making and reduces operational costs. These assumptions form the basis for the development of the hypotheses presented in this paper.

One general and three specific hypotheses were formulated in accordance with the stated subject and objective of the research.

General hypothesis:

H₀: The application of artificial intelligence significantly increases the economic productivity of companies through the automation of business processes and the optimisation of resource management.

Specific hypotheses:

H₁: The implementation of AI-based solutions enables companies to make faster and more accurate business decisions, resulting in improved market performance.

H₂: Enterprises that successfully integrate AI into their business models demonstrate higher levels of innovation and competitive advantage than those that rely on traditional methods.

H₃: The main challenges in implementing AI in enterprises include high initial investments, lack of skilled personnel, and potential ethical and legal implications related to data processing.

The paper is based on general scientific research methods, including

- the method of analysis;
- the method of synthesis;
- the method of deduction;
- the method of induction;
- the method of concretisation; and
- the method of generalisation.

To test the proposed hypotheses, in addition to theoretical research, a qualitative study in the form of a case study was conducted, focusing on how the global company *Amazon* uses AI tools. The research examines how *Amazon* uses AI to improve its marketing strategies and project management, all with the aim of increasing the company's economic productivity.

THE ROLE OF AI IN MODERN BUSINESS

Artificial intelligence is a field of computer science that aims to develop intelligent systems capable of performing tasks that typically require human intelligence, such as visual processing, speech recognition, decision making and language processing. The application of AI spans a range of industries, from healthcare to retail, and is driving a number of technological innovations (Bainey, 2024).

There are several definitions of artificial intelligence. A widely accepted definition was provided by the European Commission in its report on the definition of artificial intelligence: "Artificial intelligence refers to systems that exhibit rational, intelligent behaviour based on analysing their environment and making decisions - with a degree of autonomy - to achieve specific goals. AI-based systems can be purely software-based and operate in the virtual world (e.g. virtual assistants, photo analysis software, internet search engines, speech and facial recognition systems), or they can be embedded in hardware devices (e.g. advanced robots, autonomous vehicles, drones and similar technologies)" (Budić, 2022, p. 24).

At the beginning of the 21st century, artificial intelligence and machine learning algorithms were mainly the subject of theoretical discussions and research in academic circles. At that time, the practical application of AI-based solutions was mostly limited to large global technology companies. However, the advancement of digital technologies also brought significant advances in the field of artificial intelligence (Feigenbaum, McCorduck, & Nij, 1988).

During this period, technological advances and the widespread adoption of digital technologies in society created fertile ground for the development of artificial intelligence. Vast amounts of data became available, while computing resources became more powerful, efficient and accessible than ever before. These factors allowed researchers and engineers to experiment with new methods and machine learning algorithms, ultimately leading to a wide range of practical applications of AI in different fields (Czarnitzki, Fernández, & Rammer, 2023).

Artificial intelligence has become one of the most widely used terms in business in recent years. However, despite its popularity, AI has also become one of the most controversial areas of technology in modern times. It is often misused in unethical ways, sparking numerous debates within the academic community (Czarnitzki, Fernández, & Rammer, 2023).

Today, AI is applied in various fields, including natural language processing (NLP), automation, computer vision and pattern recognition. Thanks to this modern technology, it has become possible to automate routine processes, increase the accuracy of analyses and predictions, and gain insights based on concrete and up-to-date data. AI has the potential to transform many industries, making business processes simpler, safer and more efficient (Loureiro, Guerreiro & Tussyadiah, 2021).

A NEW PARADIGM IN GLOBAL BUSINESS

The rapid development of artificial intelligence is transforming the way business is conducted, communicated and traded today. The increasing use of AI in business raises many questions and dilemmas, particularly with regard to its impact on the labour market and quality of life. One of the main ongoing debates in professional circles is whether the application of artificial intelligence will lead to job losses or improve the quality of life and create new jobs. While some authors are concerned about potential layoffs due to the automation of an increasing number of business processes, others believe that artificial intelligence will contribute to improved efficiency, the creation of new jobs and the development of innovative business models (Gao, & Feng, 2023).

Predictions of the impact of AI on global gross domestic product (GDP) by 2030 show the significant economic impact and transformative potential of this technology. Among the countries expected to experience the highest economic growth as a result of AI adoption is China, with a projected 26.1% increase in GDP by 2030, which would be a major contributor to its further economic development (Statista, 2023).

In addition to China, other global regions are also recognising AI as a key driver of economic growth. North America is expected to see GDP growth of 14.5%, while Northern Europe will see an increase of 9.9%. Furthermore, Southern Europe, developed Asia and Latin America are expected to reap significant economic benefits from the application of AI technologies, with projected GDP growth rates of 11.5%, 10.4% and 5.4% respectively (Statista, 2023). These figures highlight the strategic importance of integrating AI into business processes and economic policies, with countries that effectively implement AI solutions potentially gaining a long-term competitive advantage in the global economic system.

Recognising the potential and importance of integrating AI into the economy, the Government of the Republic of Serbia established the

National Research and Development Institute for Artificial Intelligence in Novi Sad in 2021. The Institute was established with the aim of researching and applying artificial intelligence technologies and finding innovative ways to use them to improve business operations, communication and, in general, the quality of life of citizens. The government's initiative underlines its recognition of the importance of AI for the country's future economic development and its desire to harness its full potential in various sectors of society (IVI, 2023).

In the modern business environment, the use of AI is helping to optimise various aspects of operations, resulting in reduced costs, faster business processes and increased competitive advantage for companies. The question is: how can AI contribute to the economic productivity of modern businesses? One of the most important tools is business process automation (RPA). RPA enables companies to automate routine, repetitive tasks such as data entry, transaction processing and reporting. By using RPA tools, businesses can significantly reduce the need for human labour, resulting in faster, more accurate and cheaper business processes. Automation also reduces the likelihood of errors and contributes to greater efficiency in the execution of daily operations (Brynjolfsson, Rock, & Syverson, 2019).

It can be said that artificial intelligence has a significant impact on the economic productivity of companies by automating routine business processes, which leads to a reduction in operating costs and an increase in efficiency. Automating tasks such as data entry, document processing or customer communication through chatbots frees up human resources to focus on strategic and creative activities that add value to the business (Loureiro, Guerreiro, & Tussyadiah, 2021). This speeds up decision-making processes and increases the speed of response to the demands of the modern market.

AI also enables advanced analysis of large volumes of data (big data), providing organisations with detailed insights into market trends, consumer behaviour, and product or service performance. This information is critical for making accurate and informed decisions, leading to resource optimisation and revenue maximisation. For example, predictive analytics algorithms can predict shifts in demand, enabling companies to adjust their business strategies in a timely manner.

AI generally contributes to the development of innovation through the personalisation of product and service offerings. Companies that integrate AI are better able to understand the needs and preferences of their

customers and thus create tailored offers and marketing campaigns. The ability to customise increases customer satisfaction and loyalty, which further contributes to long-term competitive advantage (Brynjolfsson, Rock, & Syverson, 2019).

In the field of marketing and personalisation, AI tools enable a better understanding of consumers' needs by analyzing their behaviour and preferences. AI in marketing helps companies create targeted campaigns tailored to specific market segments, thereby increasing the effectiveness of promotions and reducing advertising costs. Personalised offers created using AI tools significantly improve the customer experience and increase customer loyalty, which has a direct impact on revenue growth and long-term profitability (Kumar, Singh, & Patel, 2023).

It should be noted that the impact of AI on economic productivity is not limited to business operations within companies; AI has the potential to transform entire industries, enabling more efficient production, optimisation of supply chains and the development of new business models. Companies that embrace the technology are more likely to become leaders in their sectors, while laggards in AI adoption may find themselves less competitive in the global marketplace.

Previous research suggests that predictive analytics is another key AI tool for improving the economic performance of companies. Predictive models use large amounts of data to forecast market trends, consumer preferences and other key factors that influence business operations. AI tools enable managers to better plan production, optimise inventory and manage pricing strategies (Jang, 2022). In this way, companies can better respond to market changes, minimise potential risks and maximise overall profits.

One of the most important aspects of business to benefit from AI is supply chain optimisation. By using AI tools, companies can accurately predict inventory needs, identify potential supply disruptions and improve resource allocation. Therefore, AI allows for reduced inventory, faster delivery, and minimised losses, resulting in significant savings and increased efficiency in business processes (Brynjolfsson, Rock, & Syverson, 2019).

In the area of customer support, AI tools such as chatbots and virtual assistants enable companies to provide constant support, answer frequently asked questions, and address basic customer requests (Kumar, Singh, & Patel, 2023). Automated support enables significant savings in

time and resources, while improving the customer experience. The use of these tools contributes to increased customer satisfaction and reduced operational costs.

Competitive and market analysis using AI allows companies to quickly monitor competitors' activities, observe market trends, and adjust their strategies according to market changes. Competitive analysis tools help companies to identify their strengths and weaknesses compared to competitors, enabling them to develop strategies to secure a better market position (Noy, & Zhang, 2023).

CHALLENGES OF IMPLEMENTING AI IN BUSINESS PROCESSES

The implementation of artificial intelligence into business models, while highly beneficial, is not without its challenges. Companies face high initial costs, the need for skilled professionals, and the need to comply with legal and ethical standards. In addition, companies face technical challenges. Integrating AI solutions with existing systems and infrastructure requires significant investment, both in terms of money and time. The lack of standardisation in AI technologies further complicates implementation, as companies often face compatibility issues between tools and platforms (Kumar, Singh, & Patel, 2023).

Ethical issues such as user privacy and algorithmic transparency are becoming increasingly important in the context of stricter data processing regulations. In this regard, organisations need to develop policies and practices that ensure compliance with legal and moral standards, which requires additional resources and management commitment. In addition, there is a risk of creating a dependency on technology, where an over-reliance on AI tools can lead to a reduction in critical thinking and innovation within the workforce.

Despite these challenges, a strategic approach to AI implementation, including careful evaluation of return on investment (ROI), ongoing training of specialised staff and collaboration with AI experts, can significantly mitigate risks and enable organisations to fully realise the potential of the technology. Companies that successfully balance the technical, organisational and ethical aspects of AI application will position themselves as market leaders, ready to respond to upcoming transformations and market demands.

CASE STUDY – AMAZON COMPANY

Amazon is a global leader in e-commerce and technological innovation. Its ability to tailor marketing strategies to the individual needs of users is critical to its competitiveness and success in the marketplace. Typically, *Amazon* collects vast amounts of data on user behaviour, including past purchases, searches, products viewed and interactions with the platform. Using advanced machine learning algorithms, *Amazon's* experts analyse this data to create personalised product recommendations for each user. In practice, this means that when a user is browsing electronics, *Amazon* will recommend similar products that match their interests and needs. This personalised approach not only improves the customer experience, but also increases sales and customer loyalty. By continually refining its algorithms based on user data, *Amazon* ensures that its recommendations become more accurate over time, leading to more targeted advertising and more efficient sales strategies. This AI-driven model has been a key factor in *Amazon's* ability to maintain a strong market position, as it allows the company to respond quickly to customer preferences and optimise its offerings.

Amazon uses AI for dynamic product pricing based on various factors such as supply and demand, seasonal changes, competition and historical sales data. This allows *Amazon* to adjust product prices in real time to attract customers and increase sales. For example, if *Amazon's* analysts notice an increase in demand for a particular product, the company can automatically raise the price of that product to maximise profits (Kumar, Singh, & Patel, 2023).

In addition, *Amazon* uses data to understand user behaviour and create personalised advertising campaigns that target specific audience segments. By using AI to analyse purchasing behaviour, *Amazon* can identify potential buyers who are likely to respond to a particular ad or offer. For example, if a user frequently buys books in a particular genre, *Amazon* will target ads for new books in that genre. This AI-driven approach improves the precision of marketing efforts, resulting in more relevant ads and increased customer engagement.

The use of artificial intelligence and data analysis has allowed *Amazon* to enhance user experience, increase sales, and optimize marketing strategies. Personalized product recommendations and dynamic pricing contribute to higher user engagement and increased sales, while tailored advertising campaigns enable *Amazon* to more effectively reach its target audience.

Another key aspect of AI application at *Amazon* is the automation of various tasks in project management. *Amazon* utilizes AI tools to automatically generate project plans, allocate resources, and track progress in real time. These tools allow project teams to respond more quickly to changes and adapt their activities according to emerging circumstances, significantly reducing the time required to complete projects and improving overall efficiency (Manasa & Jayanthila Devi, 2022).

Amazon uses AI to manage risk in projects through advanced predictive analytics. AI tools analyse vast amounts of data, including historical data and current market conditions, to identify potential risks and provide mitigation strategies (Manasa & Jayanthila Devi, 2022). This predictive capability allows project managers at *Amazon* to take a proactive approach to risk management, reducing the likelihood of project failure and minimising negative impacts on the business.

AI at *Amazon* also plays a critical role in optimising human resource management on projects. AI tools enable the analysis and prediction of team members' performance, which helps to better allocate tasks and maximise their skills and capabilities (Tren, 2019). This approach not only increases team efficiency, but also contributes to higher employee satisfaction, as tasks are assigned according to individual skills and interests.

Amazon is using AI to analyse large amounts of data to inform project management decisions. AI tools, such as those built into Amazon Web Services (AWS), enable in-depth analysis of data collected during project execution, providing project managers with insights into trends and patterns that may impact the success of the project (Hemachandran & Rodriguez, 2024). This data analysis also facilitates better planning for future projects based on data and empirical evidence, leading to more informed decision making.

Since 2020, *Amazon's* management has significantly invested in the application of artificial intelligence (AI) to increase the economic productivity of its operations, recognizing that the COVID-19 pandemic raised the standards in online shopping as well as consumer preferences. By 2023, the implementation of AI technologies resulted in savings of approximately \$17.83 million in lost production hours due to unplanned equipment downtime across 162 facilities in the EU. In this way, *Amazon* also saved another \$20 million in logistics and production costs that would have been incurred to ensure timely deliveries during such downtimes.

These savings are a result of AI solutions enabling predictive maintenance of equipment, reducing unplanned downtimes, and enhancing operational efficiency (Tariq, 2024). By using AI to analyze data in real-time, *Amazon* was able to identify and address potential issues before they became critical, leading to substantial financial savings and increased productivity.

Table 1. Productivity gains at Amazon through the use of AI tools (2020-2023)

Year	AI application area	Savings in production (USD million)	Savings in logistics and delivery costs (USD million)	Total savings (USD million)
2020.	Predictive maintenance of production equipment	5.3	7.2	12.5
2021.	Optimise warehouse operations and demand forecasting	6.4	8.3	14.7
2022.	Real-time data analysis to minimise downtime	4.8	6.1	10.9
2023.	Predictive maintenance + performance analysis in delivery	1.7	3.5	5.2

Source: Author according to AWS, 2024.

From the data presented in Table 1, it can be concluded that by implementing AI solutions that enable real-time data analysis, *Amazon* reduced unplanned equipment downtime and linked efficiency to reduced production costs. AI was also used to improve inventory management, reduce forecasting errors and increase the efficiency of warehouse operations. AI tools enabled *Amazon* to identify and resolve potential problems before they became critical, reducing the need for unscheduled maintenance and increasing productivity. Combining all AI applications in production and logistics, *Amazon* achieved significant savings ranging from \$12.5 million in 2020 to \$5.2 million in 2023.

Amazon uses AI not only to improve existing processes but also to develop new technologies that can revolutionize project management, significantly impacting the company's economic productivity. AI technologies enable project managers at *Amazon* to experiment with new approaches to project management, including the use of machine learning for automatic process optimization and the development of new AI-based collaboration tools. This approach to innovation helps *Amazon* maintain its leadership position in the industry and continuously optimize its business processes.

Table 2. Impact of AI technology adoption on productivity and innovation at Amazon (2020-2023)

Godina	AI technologies and innovations	Improved project management	Savings in development and implementation (USD million)	Increased business process efficiency	Increased competitive advantage
2020	Introduction of machine learning to optimise tasks and processes	Automated real-time data analysis	10.5	Reduced errors and faster decision-making	Improved decision-making capability
2021	Development of AI tools for team collaboration	Predictive project management	15.3	Increased flexibility and adaptability of teams	Faster project delivery
2022	Automation of planning and evaluation processes	Use of AI for risk analysis	12.7	Cost reduction and process acceleration	Better resource allocation and reduced delays
2023	Integration of advanced AI solutions to optimise team dynamics	Business process innovation	8.2	Increased accuracy in planning and decision-making	Maintaining industry leadership and innovation

Source: Author according to AWS, 2024.

Table 2 shows that *Amazon* is using AI to develop advanced technologies, such as machine learning and collaboration tools, that enable the optimisation of business processes and project management. AI allows *Amazon's* project managers to use automated systems to analyse data and identify potential problems, leading to better organisation and monitoring of projects. Overall, AI tools have reduced the cost of developing and implementing new technologies, enabling the company to save significant funds that can be reinvested in further development. As a result, the implementation of AI solutions increases the accuracy and speed of decision-making and improves the speed at which new solutions are introduced into business operations. Using AI for continuous innovation enables *Amazon* to maintain and increase its competitive advantage in the marketplace.

While the use of AI tools at *Amazon* brings many benefits, the company's leaders are aware of the ethical challenges posed by this technology. *Amazon* is committed to the responsible use of AI, with a particular focus on issues of privacy, transparency and fairness. The company is developing and implementing policies to ensure that AI tools are unbiased and used in a manner consistent with ethical standards. This includes ongoing efforts to improve the transparency of decision-making supported by AI technology.

It is certain that *Amazon* will continue to invest in the development and application of AI in project management to further optimise and automate processes. AI is recognised within the company as a key factor in enabling more efficient and innovative project management in the future. The development of new AI technologies, such as cognitive services and advanced data analysis tools, may provide *Amazon* with additional opportunities to enhance its projects and ensure their success in the increasingly complex global marketplace (Tariq, 2024).

It can be concluded that the use of artificial intelligence at *Amazon* is an important step towards improving project management, allowing the company to optimise its processes, manage risks more effectively and use its resources more efficiently. *Amazon* continues to develop and implement AI technologies with the goal of creating innovative solutions that will further enhance its projects and ensure their long-term success on a global scale.

The integration of artificial intelligence promises to improve project management, with companies using AI more likely to complete projects on time and achieve projected returns on investment (PMI, 2019).

Challenges in scaling AI adoption include overcoming resistance to change and equipping team members with the skills needed to work with artificial intelligence.

The results obtained indicate a strong impact of the implementation of AI systems on improving productivity and efficiency in business operations, which directly confirms the general hypothesis set out in the paper. Specifically, the analysis of Amazon shows that the use of algorithmic recommendations and robotic logistics leads to significant cost reductions and acceleration of business processes. These findings are consistent with theoretical assumptions about the positive impact of digital technologies on economic productivity (Brynjolfsson & McAfee, 2014; Davenport & Ronanki, 2018).

CONCLUSION

The paper confirms that AI is one of the key factors in increasing the economic productivity of modern organisations. Theoretical frameworks, such as the theory of digital transformation, are aligned with empirical findings, demonstrating that the application of AI technologies contributes to improved planning, decision making and resource management.

Based on the theoretical research conducted and the case study presented, it can be concluded that the general hypothesis of the paper: *The application of artificial intelligence significantly increases the economic productivity of companies through the automation of business processes and the optimisation of resource management*, has been confirmed. Specifically, based on the case study of *Amazon*, it is evident that the implementation of AI tools, such as machine learning and data analytics, has enabled the optimisation of business processes and resources. AI helps to automatically optimise operations and reduce planning errors, which has a direct impact on increasing productivity. *Amazon* uses AI technology for better inventory management, user data analysis and market trend forecasting, which contributes to better organisation and efficiency of the company. Therefore, it has been confirmed that AI leads to a significant increase in productivity through these processes, and *Amazon's* example can serve as a best practice for other companies, both globally and in the Republic of Serbia.

The paper's first specific hypothesis was also confirmed: *The adoption of AI-based solutions enables companies to make faster and more accurate business decisions, leading to better market performance*. *Amazon* is an

example of a company that uses AI for real-time data analysis, enabling faster and more accurate decision-making. AI tools enable project managers to better understand market trends and identify potential problems before they become serious. Based on this data, Amazon is able to respond quickly to market changes, which is directly linked to improved market performance. The use of AI tools enables strategic decisions that increase competitive advantage. As a result, the hypothesis has been confirmed by the practical example of *Amazon's* best practices.

The paper's second specific hypothesis: *Companies that successfully integrate AI into their business models show higher levels of innovation and competitive advantage than companies that rely on traditional methods*, was also confirmed. Amazon is a leader in implementing AI in its operations, which enables it to develop new products and services and improve the customer experience. The use of AI to develop new collaboration tools and optimise the supply chain is helping *Amazon* to remain competitive in the industry. In addition, the use of AI to improve delivery efficiency, automate processes, and develop data-driven solutions demonstrates a significant level of innovation. This technology provides *Amazon* with competitive advantages that traditional companies that do not use AI cannot achieve. The hypothesis has been confirmed, as it is evident that the integration of AI leads to a significant increase in innovation and competitiveness.

The paper's third specific hypothesis: *The main challenges of implementing AI in companies include high initial investment, lack of qualified personnel, and potential ethical and legal implications regarding data processing*, was confirmed, as even large companies like Amazon have to balance the benefits and challenges of implementing AI tools.

Although *Amazon* has successfully implemented AI tools, the company faces challenges that are common to all organisations using this technology. The high initial investment in AI infrastructure, as well as the need to continually train people to develop and manage AI systems, is a significant barrier. It is also important to note the ethical and legal challenges associated with processing customer data, which can include protecting privacy and safeguarding against misuse of data. While *Amazon* is investing in resources and technology development, these significant challenges remain and management is committed to addressing them.

Based on the previous theoretical research and the case study presented, it is evident that the implementation of AI has a significant impact on the economic performance of companies. As the example of *Amazon* shows,

the use of AI tools enables companies to manage their resources more efficiently, automate processes, improve decision making and increase competitive advantage in the market. In addition, AI contributes to the development of innovations and the optimisation of business processes, which has a direct impact on increasing productivity and reducing costs within companies. While challenges such as high up-front implementation costs and the need for skilled personnel can be barriers, the long-term benefits of AI in terms of improved market performance and efficiency far outweigh these challenges.

In the future, as the technology continues to expand, AI is expected to become an even more important tool in the business world. Organisations that successfully embrace and utilise AI will continue to gain competitive advantage, improve operational efficiency and open up new opportunities for innovation. Given the importance of AI in today's global economy, it is vital that business leaders commit to continuous learning and adaptation to new technologies in order to maintain their competitive position in the modern marketplace.

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UTICAJ VEŠTAČKE INTELIGENCIJE NA EKONOMSKU PRODUKTIVNOST PREDUZEĆA

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Sažetak: Veštačka inteligencija transformiše poslovne procese kroz automatizaciju, analizu velikih količina podataka i optimizaciju lanca snabdevanja, doprinoseći povećanju efikasnosti i sticanju konkurentne prednosti na globalnom tržištu. Cilj ovog rada je istražiti i sistematizovati znanja o primeni veštačke inteligencije u poslovnom sektoru, sa posebnim fokusom na njen uticaj na ekonomsku produktivnost preduzeća. Analizom studije slučaja kompanije Amazon, istraživanje nastoji da identifikuje ključne prednosti i izazove u primeni tehnologija veštačke inteligencije, kao i da ponudi konkretne smernice za njihovu optimalnu upotrebu u cilju unapređenja ukupnog poslovnog učinka i konkurentnosti. Studija obrađuje ključne strategije primene veštačke inteligencije u kompaniji Amazon, uključujući algoritamske preporuke, prediktivnu analitiku i robotizovane logističke operacije. Takođe se analiziraju izazovi u primeni VI tehnologije, kao što su etička pitanja, zaštita privatnosti podataka i troškovi integracije. Rezultati istraživanja pružaju uvid u najbolje prakse i smernice za optimalno korišćenje VI u poslovnom sektoru, sa ciljem poboljšanja performansi preduzeća i obezbeđivanja dugoročne održivosti poslovanja.

Ključne reči: veštačka inteligencija, ekonomska produktivnost, poslovna efikasnost, Amazon.