

UTILIZING ARTIFICIAL INTELLIGENCE IN BUSINESS OPERATIONS AT AMAZON AND JD.COM

Abstract

History serves as an invaluable teacher. By examining past industrial revolutions, we observe shifts in customer behavior and business practices over time. The transition from one industrial revolution to the next is marked by the development of new technologies, leading to the emergence of artificial intelligence (AI). As a pivotal business trend, AI is set to revolutionize our work, help us explore the unknown, unlock new possibilities, and reshape our world. It will present fresh opportunities across various industries and for individuals alike. AI is becoming one of the most influential tools in human history, and how we harness it will shape our future.

This research paper offers an overview of existing literature on the application of AI in business practices. It will examine how AI pioneers like Amazon and JD.com have leveraged AI to better understand and engage with customers, provide tailored products and services, and streamline business operations. AI is poised to open new doors and perspectives for everyone. This research paper presents a real-life case-study review of AI literature, aiming to inspire the integration of AI into your company or business career.

Keywords: artificial intelligence, new technologies, AI in business practice, business future

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Introduction

Artificial intelligence is a broad scientific discipline that aims to understand and develop systems that display intelligent properties. AI has existed since the 1950s, when researchers began exploring ways to create machines that could mimic human-like cognitive abilities, such as learning, reasoning, and problem solving. [1] Over the years, AI research has evolved, focusing on various techniques and approaches, including knowledge-based systems, expert systems, and more recently, machine learning. [1]

Machine learning algorithms are designed to enable computers to perform tasks that appear intelligent by perceiving their environment and taking actions to optimize their chances of success. [2] Machine learning is a critical component of modern artificial intelligence systems, as it allows these systems to learn and adapt from data rather than relying solely on pre-programmed rules and knowledge. Machine learning algorithms can tackle various problems, from natural language processing and computer vision to predictive analytics and decision support.

To simplify, artificial intelligence establishes the initial set of rules to optimize task performance. At the same time, machine learning constantly adjusts its actions to improve at the mentioned task. [2]

Deep learning, a subset of machine learning, has revolutionized various fields by enabling complex data analysis through deep neural networks [3]. Natural language processing is a particularly impactful application of deep learning, which empowers machines to understand and respond to human language [4][5]. Furthermore, the advancements in deep learning and natural language processing have also paved the way for significant progress in robotics, allowing for the design and creation of robots that can perform tasks in the physical world [2]. In recent years, deep learning techniques have demonstrated remarkable progress in signal processing, voice understanding, text understanding, and image recognition, achieving breakthroughs previously unattainable with traditional, rule-based artificial intelligence approaches [2]. This success can be attributed to the ability of deep learning to “model the mind” more effectively than its predecessors. However, the underlying “physics” of the problem can sometimes be obscured in the complex network architecture. [2]

Natural language processing, a crucial artificial intelligence component, enables machines to engage in linguistically based human-computer communication. Using data-driven strategies, such as deep learning, has led to significant improvements in this field, with the ability to analyze text sentiment, perform speech recognition, and generate natural-sounding responses to questions. [6][2]

Robotic systems can now leverage deep learning algorithms to directly process and interpret high-dimensional sensory inputs, such as visual, auditory, and tactile data, enabling them to navigate and manipulate their physical environment with increasing autonomy. As these technologies continue to evolve, integrating deep learning, natural language processing, and robotics is poised to drive further

innovations that will shape the future of artificial intelligence and its impact on various industries and applications.

Artificial intelligence (AI) has become a critical asset and a dynamic area of analysis across various fields. AI-powered solutions help organizations better understand their customers and offer more personalized services. Today's consumers demand smarter, eco-friendly products that meet their needs efficiently, as time is a precious resource. Businesses strategically using AI applications to address the challenges and opportunities of the fourth industrial revolution are poised to discover untapped avenues for success. Integrating artificial intelligence into the operations of e-commerce giants like JD.com and Amazon has significantly transformed the online shopping landscape. The primary objectives of this research paper are to analyze how JD.com and Amazon are using AI technologies to optimize operations, customize customer interactions, and promote innovation. Key research questions include identifying the benefits of AI for effective personalization and performance measurement, as well as examining practical AI usages in e-commerce businesses. The aim is to provide actionable insights that encourage managers to integrate these insights into their business strategies or careers.

1. Methodology

The selection criteria for the companies analyzed, JD.com and Amazon, are two of the biggest e-commerce platforms in the world and pioneers in AI. They operate in different regions and business models, but both use AI. The selection criteria for the literature and sources were established through a review of journals, industry and company reports, sales and business data platforms developed by Dun & Bradstreet, companies' websites, advanced AI-powered research platform *ithy.com* and published research articles that address AI implementation, analyzing companies' operations, customer experiences, and overall competitiveness to demonstrate the impact of AI on their business operations.

2. Analysis of AI Applications Through Two Concrete Case Studies

This section offers an in-depth look at how the two leading e-commerce platforms implement AI. It demonstrates how they utilize AI to improve efficiency and innovate customer interactions and business decisions, thereby maintaining and enhancing their positions in the global e-commerce market.

2.1. AI Applications In JD.com's Business Practices

JD.com, a Beijing-based Chinese e-commerce company, is one of China's top two business-to-consumer (B2C) online retailers by transaction volume and revenue, competing closely with Alibaba and Amazon. It operates a comprehensive e-commerce platform offering a diverse range of products such as electronics, home appliances, apparel, and groceries. Unlike Alibaba, which primarily acts as a marketplace, JD.com follows a direct sales model akin to Amazon, maintaining its

own inventory to ensure product authenticity. The company has heavily invested in its self-managed logistics network, enabling fast and reliable delivery. JD Logistics' division provides same-day and next-day delivery services, giving it a significant competitive advantage. JD.com employs advanced technologies like artificial intelligence, big data, and robotics to enhance its operations and pioneers drone delivery in rural China. As a leading supply chain-based technology and service provider, JD.com offers products and services to consumers, third-party merchants, suppliers, and other business partners through its subsidiaries and consolidated variable interest entities. According to D&B Hoovers, it initially focused on selling electronics online, operating in approximately 1,300 warehouses across nearly all counties and districts in the country. Prior to 2021, the company operated in two segments, but it has since revised its segment reporting to align with its optimized organizational structure and business developments. It now functions in three segments: JD Retail (over 85%), JD Logistics (around 10%), and New Businesses (less than 5%). JD Retail primarily includes online retail, online marketplace, and marketing services in China. JD Logistics encompasses both internal and external logistics operations. New Businesses cover logistics services for third parties, overseas ventures, technology initiatives, asset management services for logistics property investors, and the sale of development properties by JD Property. Product sales, marketplace, and marketing services are mainly part of the JD Retail segment, whereas logistics and other services fall under New Businesses. Additionally, product revenues comprise electronics and home appliances (over 50% of sales) and general merchandise (nearly 35%), while service revenues include marketplace and marketing, logistics, and other services, each contributing over 5%. The company's revenue has consistently risen over the past five years, showing an overall increase of 163% from 2017 to 2021. In contrast, net income has been erratic, fluctuating between 2017 and 2019, soaring in 2020, and then falling to a net loss in 2021. JD.com's total net revenues grew by 29%, rising from RMB 576.9 billion in 2019 to RMB 745.8 billion in 2020, with increases across both categories of net revenues. This growth in the company's total net revenues primarily stemmed from its ability to expand its customer base and enhance customer retention in 2020. However, in 2021, the company reported a net loss of RMB 4.5 billion, representing a 109% decline from the previous year net income of \$49.3 million. JD.com plans to further invest in technologies, expand its fulfillment infrastructure, and enhance its product and service offerings. For instance, in 2021, the company hired new employees to bolster its fulfillment infrastructure and strengthen its supply chain technology and service capabilities. It will continue to allocate resources toward training, managing, and motivating its workforce. JD.com also intends to build additional warehouses and establish new fulfillment facilities in various locations throughout China, including smaller, less developed areas. To support its growth, JD.com plans to implement a range of new and upgraded managerial, operational, financial, and human resource systems, procedures, and controls.

Artificial Intelligence (AI) has significantly impacted JD.com's business operations and overall outcomes. It functions across various domains, including supply chain optimization, customer service, and personalized marketing. Literature broadly supports the application of AI in e-commerce, referencing platforms and online retailers. AI-driven strategies collectively contribute to JD.com's competitive edge in the e-commerce sector, with specific examples.

Supply Chain and Logistics

JD Logistics, for instance, has implemented "intelligent warehouse transformation" and "unmanned transformation" to control storage costs and enhance operations. JD.com smart warehousing solutions using AI strengthen the efficiency of warehousing operations through automation, robots, and drones, reducing human error and increasing speed [7] [8] [23].

Customer Experience

Research indicates that JD.com, as a leading e-commerce platform, leverages data-driven approaches to improve fulfillment efficiency and enhance customer experiences through optimized inventory allocation [24]. AI chatbots and virtual assistants provide immediate customer support, improving response times and user experience. They have even produced a chatbot that can create automated poems or songs and deliver them to the recipient if the purchased item is a gift [12]. Tailored product recommendation increases the perceived value of products and services, thereby enhancing consumer satisfaction and loyalty. The effectiveness of these recommendations lies in presenting products aligned with consumer preferences and saving their time [25] [26].

Marketing and Sales

AI is used for targeted marketing campaigns by analyzing customer behavior data to predict purchasing trends. Automated pricing strategies informed by AI ensure competitive pricing and maximize profit. These AI applications allow for dynamic price adjustments based on real-time market demand and competitor actions, further solidifying their market position and optimizing revenue generation [19]. JD.com has established cooperation with Chinese giants like Tencent and Baidu to integrate their products into its applications. They are analyzing profile data and making tailored item recommendations [12].

AI in Business Process Automation and Decision Making

AI/ML technologies are pivotal in automating complex business processes, which boosts efficiency, accuracy, and overall operational scalability [9]. These technologies inform strategic product decisions by providing predictive analytics and insightful data [10]. JD.com's decision accuracy rate exceeds 90%, with individual system operations achieving response times as fast as one second. JD.com

leverages AI to innovate new business models, such as smart retail stores, where customers can experience seamless online and offline shopping [15] and visualize how an item will look in real-world space. Collaborative AI initiatives with partners drive innovation and create new opportunities in various business sectors, from healthcare to start-up projects.

According to JD.com's corporate blog, JD Logistics has announced a collaboration with AutoCore.ai, a leading provider of intelligent mobility software and automotive electrical and electronic architecture (EEA) solutions. Together, they will develop comprehensive and versatile autonomous driving systems designed for the logistics industry. JD Logistics operates over 600 autonomous vehicles across 30 cities in China, serving various environments such as residential complexes, shopping malls, and office buildings. These robots offer customers flexible delivery options and streamline on-demand delivery services for supermarkets. Some vehicles are equipped with advanced cold and heating storage systems for food products, broadening the range of items JD Logistics can deliver directly to customers' doors. The fleet also includes indoor delivery robots operating in malls and office buildings in over 10 cities, including Beijing and Shanghai. Thanks to a strong logistics infrastructure and intelligent technologies, over 90% of JD.com's retail orders are fulfilled within 24 hours, setting a new benchmark in the e-commerce industry. AI tools have allowed JD.com to enhance efficiency and improve the customer experience. For instance, JD's AI-driven digital human livestream hosts have helped over 5,000 brands boost sales conversion rates during off-peak hours by 30%, as stated on JD.com's corporate webpage. In conclusion, AI drives JD.com's competitive edge through enhanced operational efficiency, superior customer experience, insightful data analysis, and innovative business practices. This technological integration ensures that JD.com remains a leader in the e-commerce industry.

2.2. AI Applications in Amazon's Business Practices

Amazon is an American multinational technology company that specializes in e-commerce, cloud computing, digital streaming, and artificial intelligence. Alongside Google, Apple, Microsoft, and Facebook, it is one of the Big Five in the U.S. information technology sector. Amazon is recognized for its innovation across various fields, such as logistics, robotics, and artificial intelligence. According to D&B Hoovers, Amazon.com designs its platforms to allow hundreds of millions of unique products to be sold by the company and by third parties across numerous product categories. Customers access its offerings via its websites, mobile apps, Alexa, devices, streaming, and by physically visiting its stores. In the electronics segment, Amazon manufactures and sells various electronic devices, including Kindle, Fire tablet, Fire TV, Echo, Ring, and more, while also developing and producing media content. Amazon serves consumers, sellers, developers, enterprises, content creators, advertisers, and employees. The company fulfills customer orders

through several methods, including its North America and International fulfillment networks; co-sourced and outsourced arrangements in some countries; digital delivery; and its physical stores. Most of the company's revenue comes from the U.S. Amazon.com categorizes its operations into three segments: North America (approximately 60% of revenue), International (about 25%), and Amazon Web Services (AWS, around 15%). Its North America segment primarily comprises revenue from retail sales of consumer products (including those from sellers) and subscriptions through North America-focused online and physical channels. The International segment mainly includes revenue from retail sales of consumer products (including those from sellers) and subscriptions via internationally-focused online stores. This segment encompasses export sales from these online stores to customers in the U.S., Mexico, and Canada, but excludes export sales from its North America-focused online stores. AWS encompasses global revenue from storage, database, and other services for startups, enterprises, government entities, and academic institutions. Online stores contribute approximately 40% of Amazon's total revenue. Third-party seller services account for about 25%, AWS generates around 15%, while subscription services, advertising services, physical stores, and other services make up the remainder. Overall, product sales represent about 45% of revenue, and services account for roughly 55% of revenue. The company's advertising expenses were approximately \$16.9 billion, \$20.6 billion, and \$20.3 billion in 2021, 2022, and 2023, respectively. In 2023, the company achieved total revenue of \$574.8 billion, marking a 12% increase from the previous year's revenue of \$514.0 billion. Amazon.com's financial focus is on long-term, sustainable growth in free cash flows. Free cash flows are primarily driven by increased operating income and efficient management of accounts receivable, inventory, accounts payable, and cash capital expenditures, including decisions regarding the purchase or lease of property and equipment. Increases in operating income mainly stem from higher sales of products and services and effective management of operating costs, partially offset by investments in long-term strategic initiatives, including capital expenditures aimed at enhancing the customer experience. To boost sales of products and services, Amazon focuses on enhancing all aspects of the customer experience, including lowering prices, improving availability, offering faster delivery and performance times, expanding selection, producing original content, broadening product categories and service offerings, enriching product information, streamlining ease of use, ensuring reliability, and building customer trust.

Amazon's strategic adoption and integration of AI across its operations highlight the transformative potential of these technologies in driving business success and innovation. Amazon enhances its logistics, customer satisfaction, and strategic decision-making processes by utilizing AI for demand forecasting, personalizing shopping experiences, and generating data-driven insights. This comprehensive integration streamlines operations and positions the company to maintain its competitive edge in the global e-commerce market. Furthermore, Amazon's focus on operational efficiency through AI has significantly contributed to

its substantial revenue growth, showcasing the profound impact of AI on business performance. Here are some key applications of AI in Amazon's business practices:

Operational Efficiency

AI streamlines and enhances several internal processes, including logistics, warehouse management, and supply chain operations. Amazon can accurately predict inventory requirements, optimize stock levels, and effectively handle its vast supply chain by utilizing AI models. This process includes demand forecasting, automating warehouse functions, and ensuring prompt deliveries, which reduces operational costs and improves efficiency and productivity helps firms address environmental challenges by optimizing resource usage and reducing emissions [17].

Enhanced Customer Experience

AI boosts customer satisfaction by offering personalized shopping experiences, efficient customer service, and smooth interactions through voice and image recognition technologies. Tools like Amazon's Alexa, including AI-powered chatbots and virtual assistants, deliver quick and effective support by addressing inquiries and resolving problems with satisfaction [12].

Data-Driven Decision Making

Amazon uses AI for predictive analytics and data-driven insights, which inform strategic decisions, product strategies, and market positioning, leading to better business outcomes. AI-driven personalization and dynamic pricing contribute to increased sales and higher revenue through targeted marketing and strategic price adjustments [12] [28].

Security and Trust

Implementing AI for fraud detection ensures a safe shopping environment, fostering customer trust and confidence in the e-commerce platform. By utilizing AI-powered fraud detection systems, Amazon can analyze vast amounts of transactional data in real time to identify suspicious activities and potentially fraudulent behavior. These systems employ machine learning algorithms that continuously learn and adapt to new fraud patterns, allowing for more accurate detection and prevention of fraudulent transactions [27].

Amazon has made several significant announcements [18] for 2025, including Panasonic's launch of three new smart TVs with built-in Fire TV. This expansion enhances customer access to Alexa and a wide range of streaming entertainment, apps, and services. This move follows last year's global partnership with Amazon and marks Panasonic's return to the U.S. smart TV market after a ten-year hiatus. In collaboration with BMW, a new Intelligent Personal Assistant

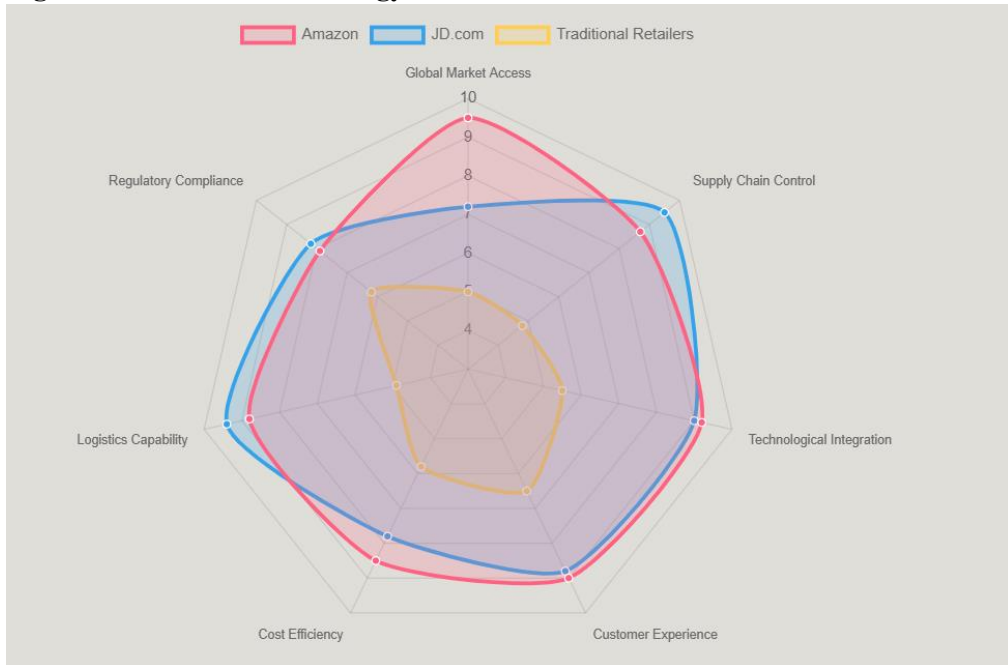
powered by Alexa Custom Assistant Technology is being introduced. Additionally, Amazon and Qualcomm Technologies, Inc. have announced plans to collaborate on technology to enhance in-vehicle experiences by leveraging Qualcomm's automotive expertise and Amazon's AI services and cloud capabilities. This partnership aims to improve AI capabilities for automotive applications and deliver more intuitive, personalized, and responsive in-car experiences through technologies like the Alexa Custom Assistant and Qualcomm's Snapdragon Digital Cockpit Platform and software framework. Furthermore, HERE Technologies and Amazon Web Services, Inc. (AWS) have announced a new collaboration and cloud infrastructure agreement to offer a scalable, efficient solution for automakers developing location-aware software. This partnership will advance the development of Software-Defined Vehicles (SDV) and accelerate the creation of Advanced Driver Assistance Systems (ADAS), Automated Driving (AD), and new digital car experiences by combining AWS technologies with HERE mapping solutions.

2.3. Comparative Analysis of The AI Application In The Two Case Studies

JD.com utilizes artificial intelligence to optimize logistics through smart warehousing, which reduces human error and speeds up delivery. It also improves customer service with AI chatbots, smart retail stores, and personalized recommendations. Furthermore, JD.com fosters innovation in retail and delivery with AI-powered indoor delivery robots and cold-chain logistics, particularly within China. JD.com is focused on an automated supply chain with autonomous vehicles, partnered with AutoCore.ai for autonomous logistics systems.

Amazon employs AI more extensively across e-commerce, cloud computing, smart devices, and international logistics, with a pronounced emphasis on personalization, predictive analytics, and strategic alliances. Supply chain and logistics with AI-powered demand forecasting, warehouse automation, and delivery routing. Enhance customer service by integrating AI into smart TVs, vehicles, and voice assistants. Amazon collaborates with BMW, Qualcomm, HERE Technologies, and Amazon Web Services, Inc. (AWS) for smart mobility and cloud AI.

Figure 1. E-Commerce Strategy Evaluation



Source: <https://ithy.com/article/amazon-jd-transnational-ecommerce-strategy-comparison-5xrzdoss>

The chart Figure 1. presents a comparison between Amazon, JD.com, and traditional retailers across key strategic points of e-commerce. Strategic points are defined automatically by AI research platform ithy.com. We can notice that both companies overpass traditional retailers. Both entities, JD.com and Amazon, are pioneers in AI integration within e-commerce, but their core AI philosophies show apparent differences. JD.com emphasizes extensive integration within its supply chain and logistics operations, striving for comprehensive automation throughout the entire industrial chain. Conversely, Amazon adopts a more comprehensive strategy by leveraging AI in customer-facing features, marketplace services, and establishing a robust cloud-based AI infrastructure. While operating independently, both entities are advancing technological integration and enhancing customer experience.

Figure 2. AI Application Approach

APPLICATION	JD.com	AMAZON
Supply Chain & Logistics	Robotics automation/drone/autonomous vehicles;	Predictive shipping/ route optimization/ optimized stock levels/ demand forecasting
Market	China	Global
Customer	Tailored product recommendation / optimized inventory location / Chatbots / Delivery per “click”	Alexa voice assistant / personalized shopping experiences / Virtual home shopping

Conclusion

Through a literature analysis of two companies, we aim to demonstrate that the future of AI holds immense promise, with the potential to revolutionize numerous industries and transform the way we live, work, and interact. Incorporating AI into organizations' overall plans and actions is a key aspect of their business strategy. JD.com and Amazon demonstrate how AI can strategically transform e-commerce operations. Both companies have effectively improved efficiency and customer satisfaction by optimizing supply chain logistics, personalizing customer interactions, and automating business processes. Their application of AI for predictive analytics, dynamic pricing, and fraud detection strengthens operational capabilities and fosters a secure and engaging shopping experience. As these companies continue to innovate, the role of AI in e-commerce is likely to grow, establishing new benchmarks for the industry. Without the implementation of AI, we can see how traditional retailers are dropping and losing in this race. A limitation of this preliminary analysis is that we focus only on the two biggest players on the market and look only for the benefits of the implementation of AI. Research paper does not analyze how AI implementations affect smaller businesses or different industries. While the document primarily highlights the transformative potential and successful integration of AI by companies like JD.com and Amazon, further research is needed to include more companies with varying degrees of AI adoption, thereby providing a more comprehensive understanding of the challenges and opportunities associated with AI implementation across diverse business industries. It would be interesting to conduct further research that analyzes not only the advantages but also the disadvantages. This could provide a more straightforward overview and a deeper understanding of AI implementation and its impact on business.

References

- [1] Ma, Liye, and Baohong Sun. "Machine Learning and AI in Marketing – Connecting Computing Power to Human Insights." *International Journal of Research in Marketing* 37, no. 3 (2020): 481–504. <https://doi.org/10.1016/j.ijresmar.2020.04.005>.
- [2] DR. A.K. PRADEEP | ANDREW APPEL | STAN STHANUNATHAN "AI for Marketing and Product Innovation," WILEY.2019.
- [3] Tai, Lei, Jingwei Zhang, Ming Liu, Joschka Boedecker, and Wolfram Burgard. "A Survey of Deep Network Solutions for Learning Control in Robotics: From Reinforcement to Imitation." arXiv:1612.07139. Preprint, arXiv, April 9, 2018. <https://doi.org/10.48550/arXiv.1612.07139>.
- [4] "Beysolow II, T. (Apress, 2018). What Is Natural Language Processing? Applied Natural Language Processing with Python, 1–12. doi:10.1007/978-1-4842-3733-5_1
- [5] "Deng, L., & Liu, Y. (Eds.), "Deep Learning in Natural Language Processing" Springer, 2018. .

- [6] Torfi, Amirsina, Rouzbeh A. Shirvani, Yaser Keneshloo, Nader Tavaf, and Edward A. Fox. "Natural Language Processing Advancements By Deep Learning: A Survey." Version 4. Preprint, arXiv, 2020. <https://doi.org/10.48550/ARXIV.2003.01200>.
- [7] Wirtz, Jochen, and Valentina Pitardi. "How Intelligent Automation, Service Robots, and AI Will Reshape Service Products and Their Delivery." *Italian Journal of Marketing* 2023, no. 3 (2023): 289–300. <https://doi.org/10.1007/s43039-023-00076-1>.
- [8] Temitayo Oluwadamilola Adesoga, Tolulope Olusola Ajibaye, Kenneth Chukwujekwu Nwafor, Ummulikhaeri Temitope Imam-Lawal, Emmanuel Ayobamidele Ikekwere, and Daniel Ikechukwu Ekwunife. "The Rise of the 'Smart' Supply Chain: How AI and Automation Are Revolutionizing Logistics." *International Journal of Science and Research Archive* 12, no. 2 (2024): 790–98. <https://doi.org/10.30574/ijrsra.2024.12.2.1304>.
- [9] Matta, Prabhavathi. (2024). Applications of AI/ML in Automating Business Processes and Data-Driven Decision-Making for Product Strategy. *INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH IN ENGINEERING AND MANAGEMENT*. 08. 1-5. 10.55041/IJSREM8167.
- [10] Hu, Kuang-Hua, Fu-Hsiang Chen, Ming-Fu Hsu, and Gwo-Hshiung Tzeng. "Governance of Artificial Intelligence Applications in a Business Audit via a Fusion Fuzzy Multiple Rule-Based Decision-Making Model." *Financial Innovation* 9, no. 1 (2023): 117. <https://doi.org/10.1186/s40854-022-00436-4>.
- [11] Authentic Product Delivered Today - JD Corporate Blog [2021], <https://jdcorporateblog.com/>
- [12] Bernard Marr, Matt Ward, "Artificial intelligence in Practice", WILEY 2019.
- [13] Thomas M. Davenport, "The AI Advantage, how to put AI revolution to Work," The MIT Press, 2018.
- [14] Zhao, Jinshan. (2024). An Analysis of JD.com's Transportation System in Support of Operational and Logistics Activities. *Science, Technology and Social Development Proceedings Series*. 1. 217-224. 10.70088/ecsvfk04.
- [15] https://app.dnbhoovers.com/company/38f91158-d89b-3f92-9f6c-77fc419610ba#report/company_summary
- [16] https://app.dnbhoovers.com/company/9dbf588b-b28e-33e4-877b-2df0fdc8cf9e#report/company_description_report
- [17] Balcioğlu, Yavuz Selim, Ahmet Alkan Çelik, and Erkut Altındağ. "Artificial Intelligence Integration in Sustainable Business Practices: A Text Mining Analysis of USA Firms." *Sustainability* 16, no. 15 (2024): 6334. <https://doi.org/10.3390/su16156334>.
- [18] CES 2025: Amazon's key announcements, <https://www.aboutamazon.com/news/devices/amazon-ces-2025-ring-bmw-fire-tv>
- [19] Gonesh, Chandra & Saha, Gonesh & Menon, Reshmi & Paulin, Sudha & Yerasuri, Sai Santosh & Saha, Hasi & Dongol, Padam & Lalit, Som. (2023). The

Impact of Artificial Intelligence on Business Strategy and Decision-Making Processes. 10.52783/eel.v13i3.386.

[20] Guha, Abhijit, Dhruv Grewal, Praveen K. Kopalle, et al. “How Artificial Intelligence Will Affect the Future of Retailing.” *Journal of Retailing, Re-Strategizing Retailing in a Technology Based Era*, vol. 97, no. 1 (2021): 28–41. <https://doi.org/10.1016/j.jretai.2021.01.005>.

[21] Kaur, Venus, Vasvi Khullar, and Neha Verma. “Review of Artificial Intelligence with Retailing Sector.” *Journal of Computer Science Research 2*, no. 1 (2020): 1–7. <https://doi.org/10.30564/jcsr.v2i1.1591>.

[22] Ithy - Transnational E-commerce Titans: How Amazon and JD.com Conquered Global Markets, <https://ithy.com/article/amazon-jd-transnational-ecommerce-strategy-comparison-5xrzdoss>

[23] Chen, G. (2024). Cost Efficiency and Profitability through Intelligent Warehouse: Case Study of Unmanned Warehouse “Asia One” in JD Logistics. SHS Web of Conferences, 181, 3006. <https://doi.org/10.1051/shsconf/202418103006>

[24] Shen, Z.-J. M., Sun, S., Qi, Y., Hu, H., Kang, N., Zhang, J., Wang, X., & Lin, X. (2025). JD.com Improves Fulfillment Efficiency with Data-driven Integrated Assortment Planning and Inventory Allocation. <https://doi.org/10.48550/ARXIV.2509.12183>

[25] Farina Iqbal, Apurba Afiat, Mahrin Mobassera Shoily, Shovan Samanta Turzo, and Md. Saeelan Arafat. “AI-Driven Personalization in e-Commerce: Evaluating the Transformative Effects on Consumer Behavior.” *International Journal of Science and Research Archive* 16, no. 1 (2025): 264–73. <https://doi.org/10.30574/ijusra.2025.16.1.2035>.

[26] Lopes, J. M., Silva, L., & Massano-Cardoso, I. (2024). AI Meets the Shopper: Psychosocial Factors in Ease of Use and Their Effect on E-Commerce Purchase Intention. *Behavioral Sciences*, 14(7), 616. <https://doi.org/10.3390/bs14070616>

[27] Singh, Anjali, Anshul Jauhari, Mehwish Shah Nawaz, Mohammad Tabish, and Pushendra Dwivedi. “Transaction Fraud Detection Using Amazon Fraud Detector and AWS Cloud Services.” *International Journal of Computer Applications* 187, no. 11 (2025): 10–12. <https://doi.org/10.5120/ijca2025925069>.

[28] MSc in Business Analyst, St. Francis College, NY, USA, and Rajesh Paul. “AI INTEGRATION IN E-COMMERCE BUSINESS MODELS: CASE STUDIES ON AMAZON FBA, AIRBNB, AND TURO OPERATIONS.” *American Journal of Advanced Technology and Engineering Solutions* 03, no. 03 (2023): 01–31. <https://doi.org/10.63125/1ekaxx73>.

KORIŠTENJE UMJETNE INTELIGENCIJE U POSLOVNIM OPERACIJAMA TVRTKI AMAZON I JD.COM

Sažetak

Povijest je neprocjenjiva učiteljica. Analizom prethodnih industrijskih revolucija može se uočiti kako su se tijekom vremena mijenjali ponašanje kupaca i poslovne prakse. Prijelaz iz jedne industrijske revolucije u drugu obilježen je razvojem novih tehnologija, što je dovelo do pojave umjetne inteligencije (UI). Kao ključan poslovni trend, UI ima potencijal revolucionirati način rada, omogućiti istraživanje novih područja, otvoriti nove mogućnosti i preoblikovati suvremeni svijet. Ona donosi nove prilike u različitim industrijama te za pojedince. UI se ubrzano razvija u jedan od najutjecajnijih alata u ljudskoj povijesti, a način na koji ćemo je koristiti odredit će našu budućnost.

Ovaj rad daje pregled postojeće literature o primjeni UI-ja u poslovnim procesima. Analizirat će se kako su začetnici u uporabi UI-ja, poput *Amazona* i *JD.com-a*, iskoristili njezin potencijal za bolje razumijevanje i angažiranje kupaca, pružanje personaliziranih proizvoda i usluga te unaprjeđenje poslovnih operacija. UI će otvori nove perspektive i mogućnosti za sve. Rad predstavlja pregled relevantnih studija slučaja iz prakse, s ciljem poticanja razmatranja integracije UI u poduzeće ili profesionalni razvoj.

Ključne riječi: umjetna inteligencija, nove tehnologije, UI u poslovnoj praksi, budućnost poslovanja