

Žaklina Teofilović

Metropolitan University
FEFA, Belgrade

Nebojša Savić

Metropolitan University
FEFA, Belgrade

Jelisaveta Lazarević

Metropolitan University
FEFA, Belgrade

Ivan Pribičević

Metropolitan University
FEFA, Belgrade

COMPETITIVENESS IN THE AGE OF GEN AI AND GENERATION Z

Konkurentnost u doba generativne veštačke inteligencije i generacija Z

Abstract

The industrial revolutions have continuously reshaped economies and labor markets. The First Industrial Revolution mechanized production with steam power, transforming agrarian economies into industrial centers. The Second introduced mass production, electricity, and large-scale manufacturing, creating demand for specialized factory and administrative roles. The third one, also known as the Digital Revolution, brought computers, automation, and information technology, expanding knowledge work, service industries, and global supply chains. Today, the Fourth Industrial Revolution, driven by artificial intelligence (AI), robotics, and agentic technologies, not only automates tasks but also augments human decision-making, transforms workflows, and enables new business models. Unlike previous revolutions, AI reshapes both routine and cognitive tasks, emphasizing adaptability, creativity, and higher-order skills, thereby redefining employability and organizational functions. Three years after the introduction of generative AI tools, this study examines how companies and Generation Z in Serbia are adapting to these technological changes.

Keywords: *competitiveness, Gen AI, artificial intelligence (AI), Generation Z, Serbia*

Sažetak

Industrijske revolucije kontinuirano su oblikovale ekonomije i tržišta rada. Prva industrijska revolucija mehanizovala je proizvodnju korišćenjem parne mašine, transformišući agrarne ekonomije u industrijske centre. Druga je donela masovnu proizvodnju, električnu energiju i industrijsku proizvodnju velikih razmera, stvarajući potrebu za specijalizovanim radnim mestima u fabrikama i administraciji. Treća, poznata i kao digitalna revolucija, uvela je računare, automatizaciju i informacionu tehnologiju, proširujući znanje, sektor usluga i globalne lance snabdevanja. Danas, četvrta industrijska revolucija, koju pokreću veštačka inteligencija (AI), robotika i tehnologije koje se odnose na agente, ne samo da automatizuje zadatke, već i unapređuje ljudsko donošenje odluka, transformiše tokove rada i omogućava nove poslovne modele. Za razliku od prethodnih revolucija, AI menja kako rutinske, tako i kognitivne zadatke, naglašavajući prilagodljivost, kreativnost i napredne kognitivne veštine, čime redefiniše mogućnost zapošljavanja i funkcije unutar organizacija. Tri godine nakon uvođenja generativnih AI alata, ova studija ispituje kako se kompanije i generacija Z u Srbiji prilagođavaju ovim tehnološkim promenama.

Ključne reči: *konkurentnost, generativna AI, veštačka inteligencija, generacija Z, Srbija*

Introduction

The modern era of global and local development is closely linked to the development of Generative AI. This human achievement leads us into a period that is the subject of many debates and dilemmas today. These dilemmas are not about whether Gen AI can benefit humanity, as it has been clearly established that it can, but about the other side of Gen AI, which entails taking all the risks if used against humanity and for immoral purposes.

Geoffrey Hinton, a Nobel Prize winner for Physics in 2024 and “godfather of AI,” warned about AI’s existential risks, rapid job displacement, and deceptive capabilities. His concerns have intensified as AI advances faster than anticipated [16].

However, there are different views on AI among economists worldwide. Some support Hinton’s warnings of massive job losses, while others argue that it will create more jobs and directly impact productivity growth, which is key to future competitiveness and stable growth.

Goldman Sachs predicts that AI could threaten 300 million jobs worldwide, particularly in the US and Europe, with jobs focused on routine tasks at greatest risk [13]. A survey conducted by PwC shows that 42% of CEOs believe that AI will destroy more jobs than it creates [24]. Another complementary survey conducted by the New York FED found that companies that use AI are more likely to retrain employees than lay them off [12]. When Erik Brynjolfsson, Danielle Li and Lindsey R. Raymond examined the impact of Gen AI on customer-service agents at a US software firm, they found that productivity among workers with access to an AI assistant increased by almost 14% in the first month of use, then stabilized at a level approximately 25% higher after three months [6].

Nevertheless, subsequent research introduced a more nuanced interpretation. Brynjolfsson, Li, and Raymond show that generative AI can enhance productivity and quality, particularly for less experienced workers, with the strongest gains observed in contexts where AI is meaningfully integrated into work processes, underscoring the importance of complementary learning and organizational adaptation [7].

In recent high-level debates among business leaders and scholars at the World Economic Forum in Davos in 2026, similar tensions were discussed. During a panel discussion reported in *Harvard Business Review*, Erik Brynjolfsson describes the current phase of AI development as a “jagged frontier,” in which machines increasingly outperform humans in task execution, while humans retain a comparative advantage in defining problems, directing intelligent systems, and evaluating outcomes. From this perspective, the key question for organizations is not whether AI will replace human labor, but whether it will be used primarily as a tool for automation or as a means of augmenting human capabilities and fostering learning [14].

Many experts predict that 2026 will be the year when the real economic impact of AI on employment is measured. Goldman Sachs and PwC also predict that AI will increase global GDP by 7%, creating new fields of employment [13], [24]. Erik Brynjolfsson, director of the Stanford Digital Economy Lab, sees AI as a technology that will make human intelligence “narrow” relative to AI over the next five years, but will also lead to GDP growth and new roles where humans and AI work together [5]. He warns of the possibility of a temporary disruption but insists on retraining and on policies related to preventive measures. In this context, competitiveness depends on the development of new technologies and their effective integration into business practice, with human capital playing a central role in translating technological potential into sustainable economic outcomes.

In last year’s paper, we analyzed innovations amid intensifying competition in the digital economy and the age of Gen AI [28]. In this paper, we deepen the analysis by linking the global development of Gen AI to the stage of its adoption among both young talent and companies.

Literature Review

In his latest articles, Spence points out that the AI revolution is accompanied by the development of increasingly powerful models and that it is crucial for its further development to include another equally important component: the adaptation and adoption of AI models [30], [31], [32]. While

model development is primarily taking place in the U.S. and China, adoption must occur worldwide. In this sense, Spence points out that the development of AI will follow a J-curve pattern. This means that at the outset, capital is allocated to the development of physical infrastructure, software, business model adaptations, data consolidation, and human capital development. In the next phase, the technological potential for value creation is manifested, and the J-curve's value-creation potential kicks in, and the curve slopes upward – the J-curve's height and slope. It seems that investors are expecting a massive payoff. However, there is a distinct sense of uncertainty, which is why there is extensive discussion about AI, and some predictions suggest that this technology may lead to a crash.

Last year's Nobel Prize winner, Philippe Aghion, with co-authors Simon Bunel and Xavier Jaravel, optimistically point out that, with the right policies, Gen AI has considerable potential for growth and employment [2]. There are two distinct channels for progress: automating tasks in the production of goods and services, and automating tasks in the production of new ideas.

In previous work, Aghion and Bunel, moving from the micro to the macro level, offered two alternatives for estimating the impact of AI on potential growth over the next decade. The first approach draws on the parallel between the AI revolution and past technological revolutions, while the second also follows Nobel Prize winner Acemoglu's framework, using data from existing empirical studies [3], [1]. Based on the first approach, it estimated that the AI revolution should increase aggregate productivity growth by 0.8-1.3 percentage points per year over the next decade. Similarly, using Acemoglu's task-based formula, Aghion estimates that AI should increase aggregate productivity growth by 0.07-1.24 percentage points per year, with a median estimate of 0.68. In comparison, Acemoglu projects an increase of only 0.07 percentage points.

While these macroeconomic models capture the potential scale of AI's impact, they provide limited insight into the organizational mechanisms that determine whether this potential is realized in practice. This shifts attention toward the company level, highlighting the importance of processes, capabilities, and human capital in translating technological potential into concrete productivity and

competitiveness outcomes. In this context, the resource-based view (RBV) [4] and dynamic capabilities theory [33] offer more suitable frameworks for understanding why similar AI technologies lead to heterogeneous outcomes across firms. RBV emphasizes that competitive advantage derives from valuable, rare and difficult-to-imitate resources [4], while dynamic capabilities highlight an organization's ability to continuously renew and reconfigure these resources under rapid technological change [33], [34]. This distinction is particularly relevant in the AI era, in which core technologies are rapidly commoditized. Recent studies applying RBV in AI contexts show that AI-specific capabilities can function as strategic resources that contribute to firm value and competitive advantage when effectively integrated with human and organizational assets [15], [35].

As a general-purpose technology, artificial intelligence rarely constitutes a sustainable source of competitive advantage in isolation. Generative models, cloud infrastructure, and standardized AI tools are becoming increasingly accessible, which limits their strategic value when considered in isolation [8], [23]. From a resource-based view, sustainable advantage therefore shifts toward complementary resources, including human skills, organizational routines, learning culture, and managerial practices that shape how AI is applied in specific organizational contexts.

Dynamic capabilities help explain why organizations with access to similar AI technologies often achieve very different outcomes. Competitiveness depends on the ability to identify relevant AI opportunities, integrate them into business processes, and continuously adapt work structures, roles, and skills [33]. These differences become particularly visible in varying levels of AI adoption maturity and in the ways AI is deployed across organizational functions.

This integrated RBV and dynamic capabilities perspective also provides a useful lens for understanding the automation-augmentation paradox. While automation can deliver short-term efficiency gains, an excessive focus on automation may weaken employee skills, autonomy, and organizational learning capacity [26]. In contrast, AI used to augment human work tends to support skill development, experimentation, and adaptability, making the balance between automation and augmentation a strategic choice with long-term consequences.

These theoretical insights become especially evident at the micro level of the workforce, where employees directly experience the consequences of organizational decisions regarding AI adoption. In this respect, Generation Z represents a particularly informative group for analysis, as they are entering the labor market at a moment when generative AI is already embedded in everyday work practices. From this perspective, the experiences of Generation Z offer important insight into how AI shapes employability and long-term competitiveness. Their future value in the labor market depends not simply on the ability to use AI tools, but on whether organizational contexts allow AI to support the development of higher-order competencies, such as critical thinking, problem-solving, communication, and emotional intelligence, rather than replacing them.

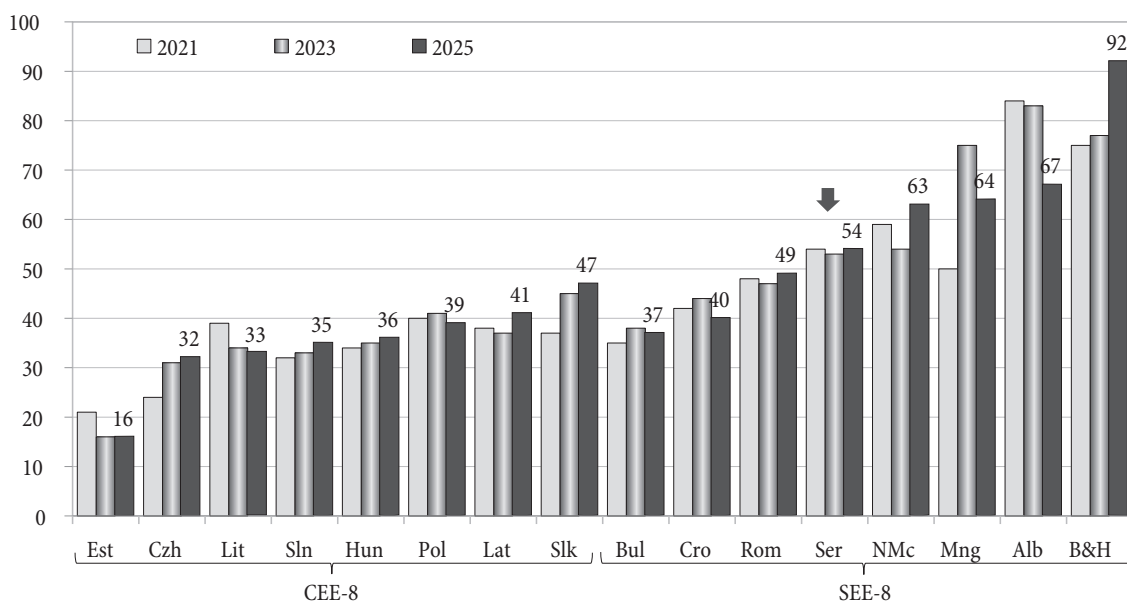
As core AI technologies become increasingly standardized and widely available, skills emerge as a key source of differentiation. According to a 2025 World Economic Forum report, nearly 40% of existing skills are expected to change or become obsolete by 2030, alongside growing demand for human, social, and cognitive skills such as critical thinking, collaboration, adaptability, and emotional intelligence [36]. This suggests that competitiveness in the AI era depends less on access to technology and more on developing complementary competencies that enable effective collaboration between humans and intelligent systems.

Rachmad describes Generation Z as the first truly digital-native generation but emphasizes that competitiveness does not arise from technological fluency alone. Instead, it is shaped by broader capabilities, including critical thinking, collaboration, ethical judgment, and leadership potential. In this context, competency frameworks and certification systems play an important role in connecting formal education with rapidly changing labor-market demands, particularly in AI-agentic work environments where skills must be continuously validated and updated [25].

Chun, with coauthors, concludes that a country’s specialization in artificial intelligence technologies significantly enhances national competitiveness by strengthening its scientific and technological capabilities, thereby improving its position within the global innovation and economic landscape [9].

Overall, the literature points to competitiveness in the AI era as a dynamic capability – the capacity of economies, organizations, and individuals to integrate AI into work, learning, and decision-making while maintaining a balance between automation and augmentation [26], [22]. From this perspective, Generation Z represents both a valuable resource and a critical test of institutional readiness: organizations that support this generation through skill development, experimentation, and responsible AI adoption are more likely to convert AI into sustainable growth and innovation, rather than a source of long-term vulnerability.

Figure 1: Global Innovation Index – GII



Source: WIPO

Innovation & Talents in the Area of Gen AI in Serbia: Checkpoints

To examine the positioning and perspectives of Gen AI in Serbia, we will use several prominent international indices.

First, we will examine the dynamics of the GII (Global Innovation Index) by INSEAD [17] across the countries of Central Europe (CEE-8) and Southeast Europe (SEE-8). The results achieved in 2025, compared with 2023 and 2021, are shown in Figure 1. Serbia has stabilized its global ranking at approximately 55th place. According to this indicator, Serbia ranked 54 in 2025. As expected, this result lags that of advanced countries in transition (CEE-8). Within the SEE-8, Serbia lags behind the group's leaders: Bulgaria (37), Croatia (40), and Romania (49), all of which are EU members. At the same time, Serbia stood out among the other SEE-8 countries: North Macedonia (63), Montenegro (64), Albania (67), and Bosnia and Herzegovina (92). Therefore, it would be extremely important for Serbia to further improve its ranking on this list by placing below 50th place to join the top three in SEE-8: Bulgaria, Croatia, and Romania.

Secondly, to achieve a ranking better than 50th place, it is necessary to examine the GII structure from a Serbian perspective (Figure 2).

Within Innovation Inputs (56), significant improvements were observed in 2025 compared with 2018 in three positions: Infrastructure (to 39 from 48), Human capital & research (to 49 from 58), and Market sophistication (to 77 from 101). In this segment, significant deterioration

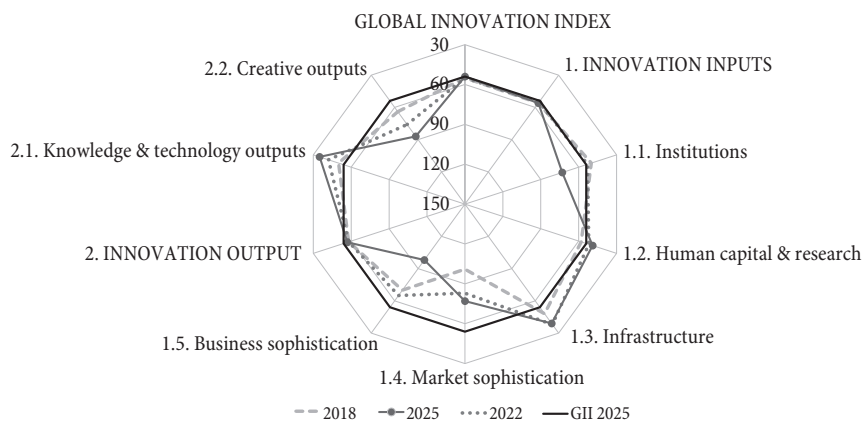
was achieved in: Institutions (73, down from 50 in 2018) and Business sophistication (98, down from 70 in 2018). Within the Innovation output, there is a significant deterioration in the Creative output (from 64 to 87) and some improvement in the Knowledge and technology outputs (from 50 to 35).

These data suggest that Serbia's innovation performance is shaped less by limited access to technology or infrastructure and more by weaker institutional and organizational capabilities that support diffusion, scaling, and value creation. The gap between improving knowledge and technology outputs and declining creative outputs indicates persistent challenges in translating technological knowledge into market-relevant innovation. While investments in infrastructure and human capital have progressed, they have not been matched by comparable advances in business sophistication, pointing to a disconnect between innovation potential and its effective integration into organizational processes.

Another important indicator linking innovation, talent, and competitiveness is the GTCI (Global Talent Competitiveness Index), as shown in Figure 3. In 2025, the index ranked 54, whereas in 2021 it ranked 58. Serbia's rank must improve and fall below the 40th place in the world, precisely because we have talent that needs to create the best possible conditions for development in Serbia [18].

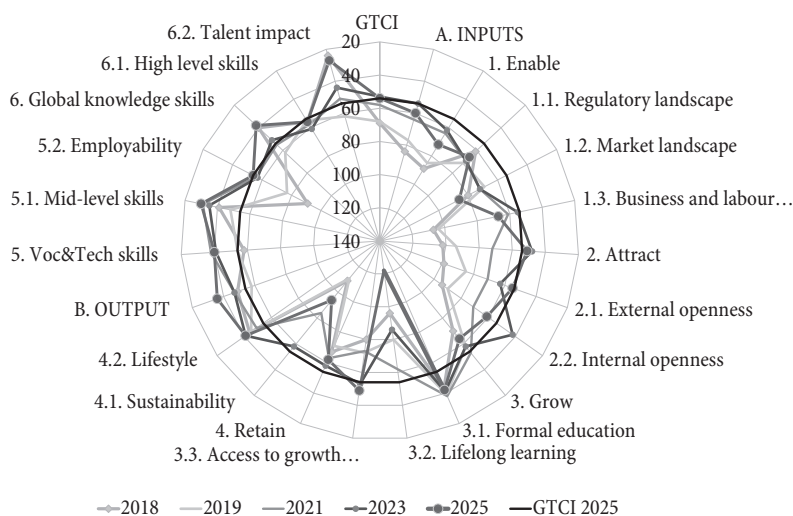
Within GTCI, better results were achieved in Outputs (36) than in Inputs (60). The improvements in Output are significant as the ranking in previous years was 47. The key improvements in this segment of GTCI were in Mid-level skills (30) and Talent impact (27).

Figure 2: Serbia – GII – 54 (2025)



Source: INSEAD GII

Figure 3: Global Talent Competitiveness Index (GTCI) 2025 – Serbia



Source: INSEAD

When it comes to GTCI inputs (60), the best results were achieved in Lifestyle (41), Formal education (42) and Access to growth opportunity (49). Unfavorable trends were recorded in Lifelong learning (122), Sustainability in the context of retaining talents (94), and Market landscape (86).

The gap between relatively strong talent outputs and weaker talent inputs points to a structural imbalance. Serbia appears capable of developing and applying mid-level skills, yet lacks sufficiently strong systems for lifelong learning, talent retention, and continuous upskilling. In the context of generative AI, this imbalance becomes particularly important, as rapid technological change places greater emphasis on learning capacity, reskilling mechanisms, and organizational support for skill transformation, rather than on static skill endowments alone.

Gen AI Era Readiness

In order to determine Serbia’s readiness for the new era that our civilization has entered, the era of GenAI, we will use several global indicators that are available.

First among them is AIPI (AI preparedness index), a new index introduced by the IMF [19]. As no new data has yet been published, we will use the findings from last year’s paper [29]. Serbia is ranked 53rd in the world, just behind Romania (40), Croatia (42), and Bulgaria (43), and ahead of Albania (58), Montenegro (64), North Macedonia (76), and Bosnia and Herzegovina (96). According to this index, Serbia is ranked approximately 50th globally and

is expected to join the group of countries ranked around 40th soon. This challenging task is realistic.

The second source is the European Innovation Scoreboard [11]. Serbia is among emerging innovators, with an SII (Summary Innovation Index) score below 70% of the EU average (in 2025, Serbia’s SII score was 51.5). Serbia’s SII has improved by +10.2 points since 2018 and by +2.3 points since 2024. This trend should continue to exceed the EU average by more than 70%.

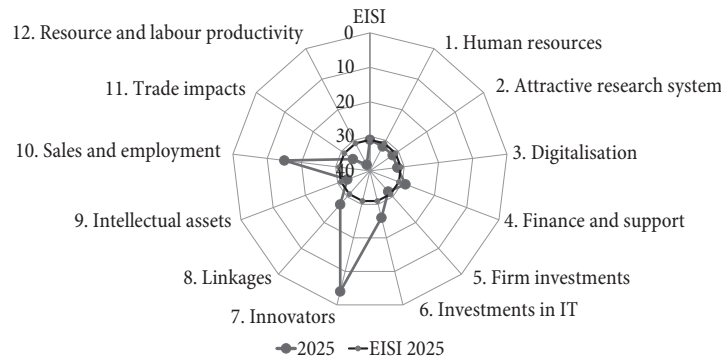
Serbia ranks 31st among EU member states and neighboring countries.

Serbia has relative strengths in (Figure 4): SMEs introducing product innovations (rank 1 among 39 countries), SMEs introducing business process innovations (4), and Employment in innovative enterprises (17). Relative weaknesses are in Production-based CO₂ productivity (37), Resource productivity (36) and Trademark applications (34).

Compared to 2018, strong increases are achieved in: Cloud Computing, SMEs introducing product innovations and SMEs introducing business process innovations. Strong decreases are observed in: Non-R&D innovation expenditures, New doctorate graduates, and Individuals with above-basic overall digital skills.

Serbia can be described as being at an intermediate stage of readiness for the Gen AI era. On the one hand, progress in digital infrastructure, increased cloud adoption, and growing innovation activity among SMEs indicate a robust technological base and a rising capacity for AI-enabled transformation. On the other hand, persistent

Figure 4: EISI (European Innovation Scoreboard Index) – Serbia 2025



Source: European Innovation Scoreboard, EC

weaknesses in human capital development, lifelong learning systems, advanced digital skills, and non-R&D innovation investment reveal structural constraints that may limit the translation of technological adoption into sustained productivity and competitiveness gains.

While macro-level indicators capture improvements in infrastructure and innovation capacity, they provide limited insight into how AI is actually adopted, governed, and transformed into value within organizations. To address this gap, the empirical part of this study examines organization-level AI adoption maturity, organizational practices, and skill development, drawing on survey data from companies and Generation Z members.

Survey Results: Methodology

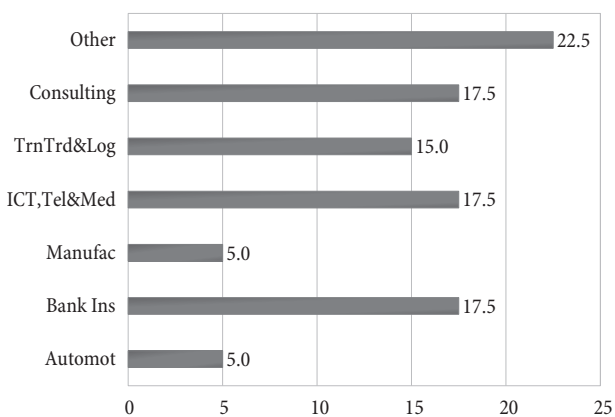
To capture key dimensions of AI adoption and use, we conducted two complementary surveys. The first survey targeted company representatives and examined the extent and maturity of AI adoption, perceived risks and benefits,

implemented use cases, organizational functions in which AI is deployed, and tasks supported or automated by AI, as well as expectations regarding younger employees’ use of AI.

The second survey focused on Generation Z members and examined the frequency and nature of generative AI use, perceived effects on skill development, assessments of critical skills for competitiveness in the AI era, changes in workplace interactions, and perceptions of managerial support for experimentation with AI. Together, these two surveys provide a comparative perspective on organizational AI readiness and workforce experiences at the early stage of the Gen AI era.

The company survey was conducted online in January 2026 and included 80 firms (Figures 5a and 5b). Nearly 57% of respondents represented large enterprises (more than 250 employees). The questionnaire consisted of 37 predominantly closed-ended questions using predefined response options and rating scales. Most companies were headquartered in Belgrade (74%), while 14% operated across Europe and the United States, and the remainder were based in other regions of Serbia. The sample included both male (66%) and female respondents.

Figure 5a: Companies by Sector (%)



Source: Authors’ survey

Figure 5b: Companies by Size (%)



Source: Authors’ survey

In parallel, an online survey was conducted among 160 individuals from younger generations. Nearly 90% of respondents were Generation Z (born between 1995 and 2010), while Millennials accounted for the remainder of the sample (Figure 6). The questionnaire consisted of 32 predominantly closed-ended questions with predefined response options and rating scales.

The sample included a higher share of female respondents (77%), with the largest age group being 20–25 years (46%). Respondents represented diverse educational backgrounds, with over 40% holding a bachelor’s degree and approximately 30% holding a master’s degree. Geographically, most participants were based in Belgrade (80%), 5% resided in other European cities, and the remainder were located in other regions of Serbia.

AI from the Company Perspective

The survey results indicate that AI adoption has become widespread across organizations in Serbia (Figure 7). Nearly all respondents report some level of AI usage, with 96% confirming the use of generative AI tools, and approximately 30% indicating that AI agents are already being implemented within their organizations. Three years after the emergence of generative AI marked a new phase in artificial intelligence development, AI has thus moved from novelty to mainstream organizational practice.

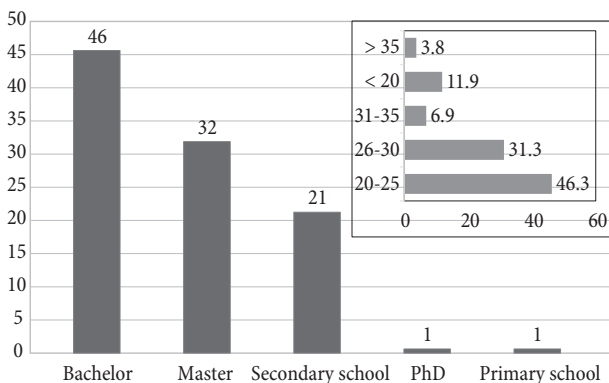
However, the extent and maturity of implementation vary considerably across organizations. Despite this high adoption rate, most organizations remain in the early phases of scaling AI solutions and realizing value at the

enterprise level. The results show that, despite a relatively high overall adoption rate, most organizations remain in the early stages of AI deployment. In many cases, AI use is limited to experimentation, pilot projects, or partial implementation within selected functions, while only a small number of companies report enterprise-wide integration of AI into core processes.

This gap between widespread access to AI tools and limited organizational integration suggests that, for most organizations, AI is still primarily used as an operational or support technology rather than as a strategic capability. Consistent with the resource-based view and dynamic capabilities perspective, these findings indicate that competitive differentiation does not arise from AI adoption alone, but from the ability to embed AI into organizational routines, redesign workflows, and align AI use with broader strategic goals. The following sections, therefore, examine in more detail how AI is applied across business functions, which tasks are supported or automated, and whether current usage reflects mainly automation-driven efficiency gains or more advanced forms of augmentation and organizational learning.

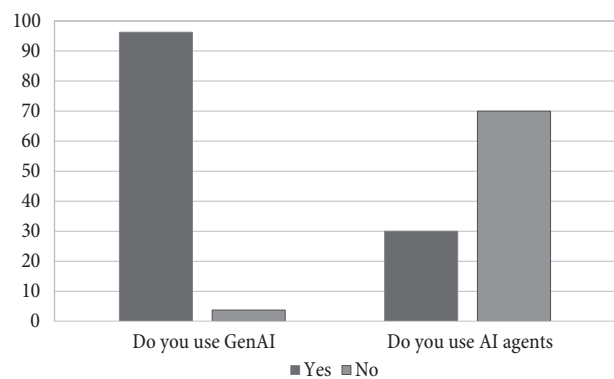
As a next step, we examined the degree to which AI is integrated at the organizational level and whether more advanced forms of adoption are beginning to emerge. Particular attention is given to the rise of agentic AI systems, which represent the latest wave of innovation in artificial intelligence. Unlike earlier AI applications, which primarily served as passive decision-support tools, agentic AI systems can autonomously execute tasks, communicate with other systems, and initiate actions.

Figure 6: Demographics of the Sample – Age and Level of Education



Source: Authors' survey

Figure 7: Usage of GenAI and AI Agents in Companies (in %)



Source: Authors' survey

This shift has important implications for job design, the distribution of responsibilities, and the role of leadership within organizations. Evidence from McKinsey & Company suggests that organizations deriving the greatest value from AI are not those relying on isolated experiments or pilot projects, but those that deliberately redesign workflows and embed AI into their core operational and strategic processes [21].

Our research suggests that, despite widespread access to AI tools, most organizations have yet to achieve this level of integration, which is a prerequisite for realizing meaningful value creation (Figure 8). Only 9% of surveyed organizations report full integration of AI into core processes, while 41% are still in the experimental or early implementation phase, exploring AI opportunities without embedding them into foundational workflows. This gap underscores the critical challenge organizations face: moving from experimentation to scalable, process-level adoption to capture the full potential of AI.

The findings reveal substantial sectoral disparities in the adoption and implementation of AI agents (Figure 9). Organizations operating in the agriculture and real manufacturing sectors report negligible use of AI agents, whereas the banking and insurance sector exhibits a comparatively higher level of adoption. Within this sector, 42% of surveyed organizations report active use of AI agents, with an equivalent share currently in the implementation phase, defined by the scaling of AI initiatives across multiple organizational functions.

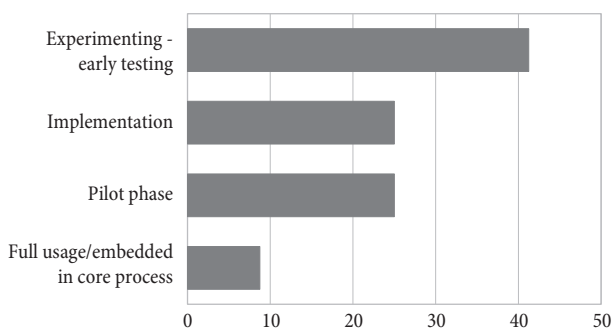
The ICT sector emerges as the leading adopter in both AI agent usage and implementation maturity. Among ICT firms, 50% report the use of AI agents, and an equal

proportion indicates that AI is either in the implementation phase or fully integrated across the organization, particularly within core operational processes. At this level of integration, AI is strategically aligned with the organization’s overarching business objectives, enabling the generation of significant, measurable impacts - such as enhanced productivity or competitive advantage – by fundamentally transforming enterprise-wide workflows rather than remaining limited to isolated use cases.

Regardless of the stage of implementation, most companies focus on applying AI in IT, marketing and sales, and client service functions (Figure 10).

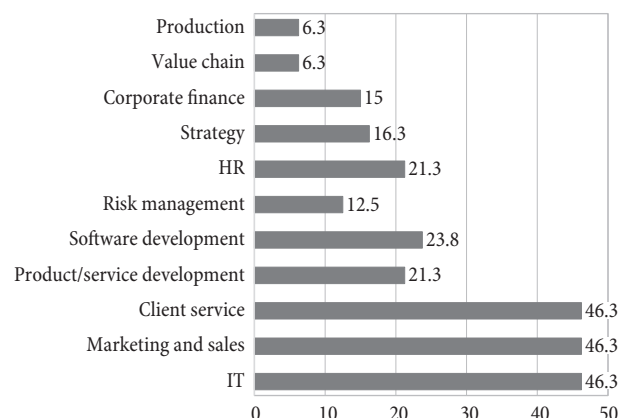
In 85% of companies where AI has reached the full implementation phase, IT clearly dominates as the primary business function for AI deployment. The survey results highlight distinct patterns of AI adoption across organizational functions. Among supporting functions, IT and HR emerge as the main areas of full AI integration, with 85% and 57% of companies, respectively, embedding AI into core processes – reflecting their critical role in driving operational efficiency and workforce enablement. Marketing, client services, software development, and strategy also exhibit significant adoption, suggesting these functions are leveraging AI to enhance customer engagement, foster innovation, and support strategic decision-making. By contrast, functions such as risk management, corporate finance, core value chain activities including production, and product/service development largely remain in the pilot, implementation, or experimental phases. This indicates that AI deployment in these areas

Figure 8: Stages of AI Usage Across Organizations in the Sample



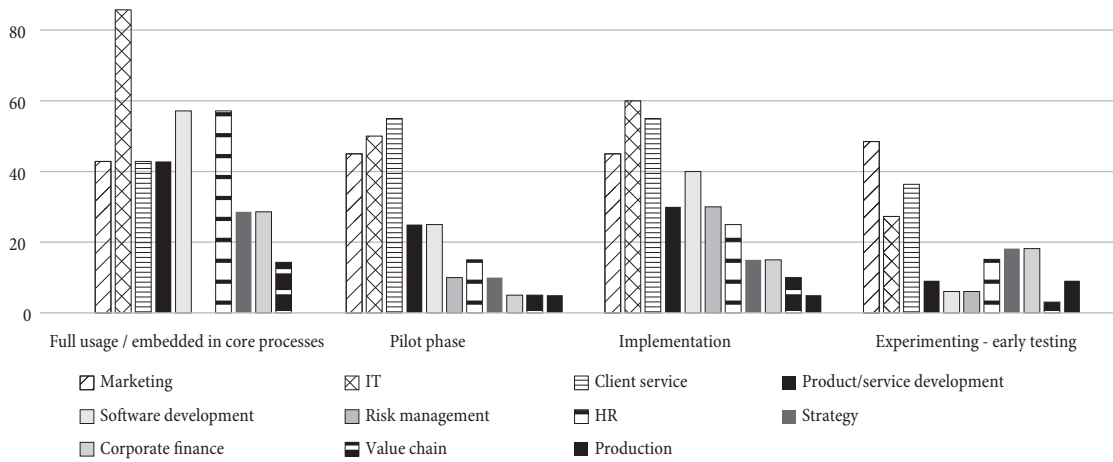
Source: Authors’ survey

Figure 9: Usage of AI Across Different Business Functions (% of Companies)



Source: Authors’ survey

Figure 10: Stage of AI Use at Respondents' Organizations, by Business Function (%)



Source: Authors' survey

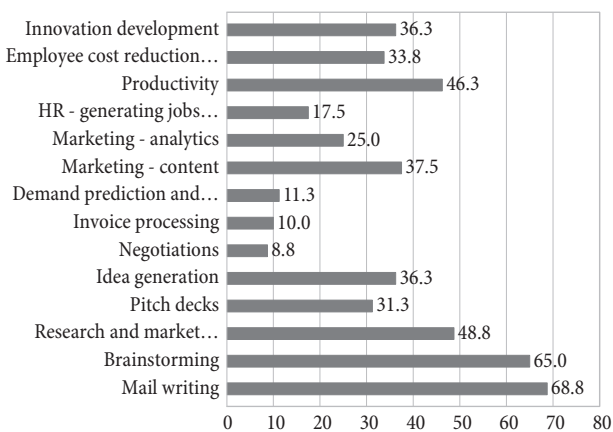
is still emerging and often requires cross-functional coordination to scale effectively.

AI is most valued as an assistant for communication, research, and productivity enhancement, while its role in more complex interpersonal tasks, such as negotiation, remains limited (Figure 11).

Our findings indicate that organizations are increasingly deploying AI not only for digital augmentation but also to streamline operations and generate measurable efficiency gains.

As AI drives an industrial, rather than purely software, revolution, our research shows that nearly half of the surveyed companies use AI to boost productivity. Around a third leverage AI to reduce employee costs through automation, a trend particularly pronounced among large enterprises in our survey, 42% of which adopt AI for this purpose. Adoption patterns also vary by

Figure 11: Tasks Where AI Is Used the Most by Surveyed Companies (% of Companies)



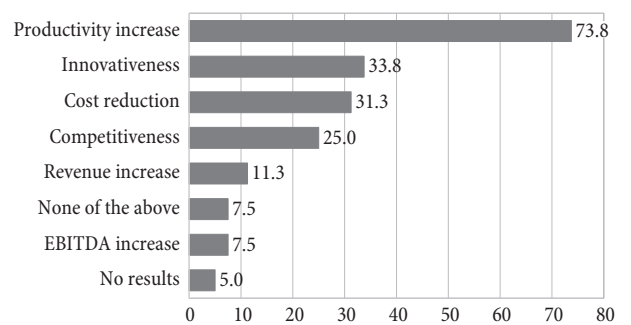
Source: Authors' survey

sector: in banking and insurance, 50% of companies use AI for such tasks, compared with 37% of ICT firms. These results align with McKinsey's Global Banking Annual Review 2025, which notes that as banks adopt AI, it can drive significant efficiency gains – potentially reducing costs by up to 70% in certain areas [20].

While curiosity and interest in AI remain high, tangible business results are still limited, and the impact on profit margin is thin.

Survey findings suggest that AI is delivering its clearest impact in boosting productivity, helping organizations streamline workflows and support innovation (Figure 12). However, its influence on financial performance, such as revenue growth or profitability, remains limited. The results point to a broader pattern: the more deeply AI is integrated into core processes, the greater the potential for tangible business outcomes. Yet, many organizations remain in a phase of experimentation rather than full-scale adoption. When asked about the

Figure 12: Business Results Generated by AI among Surveyed Companies (%)



Source: Authors' survey

main obstacles to generating value from AI, companies emphasized employee adaptation to new tasks (36%), along with challenges related to data management (22%) and cybersecurity (16%). At the same time, 33% of companies do use AI for employee cost reduction, and 16% of organizations report that AI has already begun to reduce expenses associated with errors and rework, highlighting the early operational effects that can be realized even before full integration.

Although employee adaptation to new tasks has emerged as a key challenge in realizing value from AI initiatives, at the micro-organizational level, the relationship between artificial intelligence and human labor cannot be reduced to a simple dichotomy of substitution versus complementarity. Raisch and Krakowski [26] introduce the concept of the automation-augmentation paradox, emphasizing that AI simultaneously has the potential to automate certain tasks and to augment human cognitive and creative capabilities. The paradox emerges when organizations, in the pursuit of short-term efficiency gains and cost reduction, consistently prioritize automation, which may weaken skill development, employee autonomy, and organizational learning capacity over time.

Overall, the results of this section indicate that AI adoption, including the use of more advanced agentic systems, remains uneven and is concentrated in support functions rather than in core value-creating activities. Although many organizations report productivity improvements and operational efficiency gains, these effects have not yet translated into stronger financial outcomes, such as higher profitability or margin growth. This gap reflects the fact that most organizations are still operating in an

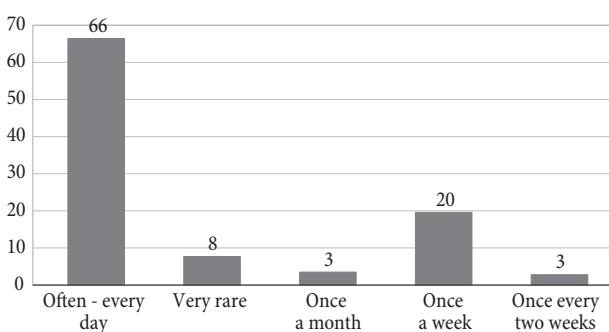
experimental or early implementation phase, where AI is primarily used to automate existing tasks rather than to fundamentally redesign work processes and decision-making. In this context, employee adaptation to new tasks emerges as a key challenge, suggesting that the human dimension of AI adoption is not developing at the same pace as technological deployment. These findings illustrate the automation-augmentation paradox in practice: while AI delivers short-term benefits through automation and cost reduction, its potential to augment human work, support learning, and strengthen organizational capabilities remains largely underdeveloped. As a result, AI adoption currently produces incremental efficiency gains rather than acting as a driver of sustained competitiveness, reinforcing the view that economic value from AI depends more on organizational choices and capabilities than on technology alone.

AI Through the Lens of Generation Z

In this survey analysis, we focus on the Gen Z responses. Examining how Generation Z uses generative AI, and how they perceive its effects on skills and work, helps clarify whether AI is primarily functioning as a substitute for human effort or as a tool for learning and capability development. In this context, the following results present evidence on the frequency of AI use among Generation Z (Figure 13), the tools they rely on, and their initial assessments of how AI shapes their skills and everyday work practices.

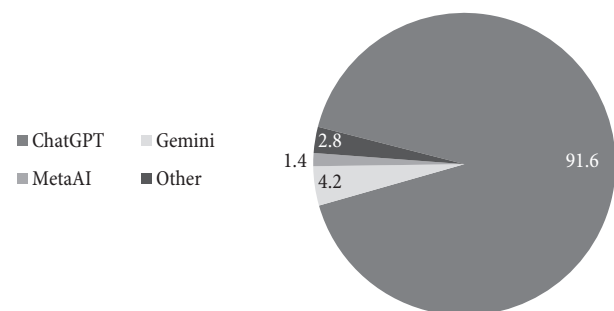
In our earlier work on this topic, we observed that generative AI had already entered the mainstream among Millennials and Generation Z [27], [28], [29]. The current

Figure 13: How Often AI is Used by Survey Respondents (%)



Source: Authors' survey

Figure 14: Which GenAI Tools Are You Using the Most



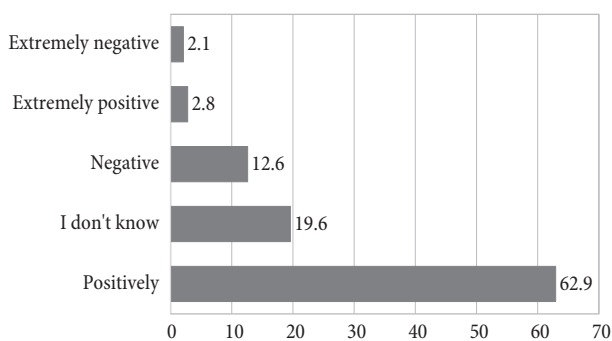
Source: Authors' survey

research reinforces this finding, showing that 9 in 10 Generation Z participants (94%) use AI, with a significant share engaging with it daily (66%), and that ChatGPT is the most widely used tool (91%) (Figure 14).

Generation Z is entering the labor market at a time when generative artificial intelligence is already deeply embedded in everyday work processes. As the first “AI-native” generation, Generation Z members are characterized by high levels of digital fluency and a tendency to use AI tools intuitively when solving cognitive tasks. From the perspective outlined in the literature review, Generation Z can be seen as operating at the intersection of technological availability and organizational capability. While access to AI tools is largely taken for granted, the extent to which these tools shape skills and learning depends less on individual use and more on the organizational context in which they are embedded.

Globally, Generation Z employees who already use generative AI at work are optimistic about its impact, reporting that it enhances productivity, frees up time, and supports a better work-life balance, according to a 2025 Deloitte report [10]. Our research aligns with this trend (Figure 15): when asked about AI’s effect on their skills development, most Gen Z respondents expressed a positive outlook, viewing AI as a tool that supports learning and skill development, whereas 13% reported negative effects. However, a notable share remains uncertain, reflecting that many are still in the early stages of understanding how AI will shape their long-term skills and career trajectories. This uncertainty reflects the broader argument from the literature that the developmental effects of AI are contingent rather than automatic.

Figure 15: AI Impact on Skills Development

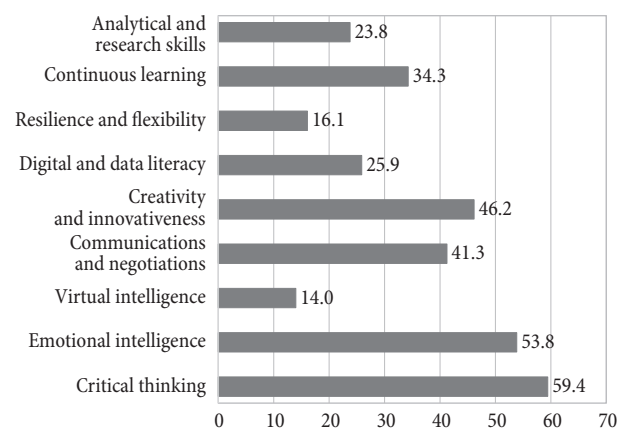


Source: Authors’ survey

Attitudes toward dependence on AI remain mixed: nearly half of Generation Z report that they are not dependent on AI for their daily tasks, despite its widespread use in activities such as email writing, research, and learning. This points to a nuanced relationship in which young professionals value AI for efficiency and skill development yet remain cautious about overreliance. They tend to rely on AI primarily for hard-skill-intensive tasks and perceive it as most effective in enhancing research and technical capabilities, while negotiation and communication skills lag behind. Notably, these least AI-supported skills are viewed as the most critical for maintaining competitiveness in the labor market (Figure 16). This aligns with global findings, where 8 in 10 Gen Z members consider soft skills – such as empathy and leadership – crucial for their future career development [10].

Company representatives in our survey agree that research and technical skills are primarily developed through the use of AI by their younger colleagues, while they perceive AI as having the most negative impact on communication skills. Employees also emphasize that communication and digital skills, together with emotional intelligence, are crucial for younger professionals to remain competitive in an AI-driven work environment, with 91% highlighting their importance. Ultimately, employability and long-term value will depend not on the ability to use AI tools alone, but on how effectively AI is leveraged to develop higher-order competencies such as critical thinking, problem-solving, communication, and emotional intelligence.

Figure 16: The Critical Skills to Stay Competitive in the Age of AI, Responses by Generation Z (%)



Source: Authors’ survey

Generation Z is generally more skeptical about the future than the more optimistic previous generations [28]. Compared to Millennials – 76% of whom expect AI to improve their work – only 64% of Gen Z share this optimism, and a higher proportion of Gen Z (18% versus 6% of Millennials) believe that AI could negatively affect their future work. As true digital natives who grew up with new technologies during their formative years, Gen Z is also more critical of digital content and more likely to fact-check AI-generated information [28]. Although company representatives generally believe that younger colleagues trust AI-generated answers (65% hold this view), approximately 40% of Gen Z participants report that they do not. This different attitude toward AI also reflects on the labor market, with 55% of Gen Z participants anticipating that future generations may face difficulties finding jobs due to AI, compared to 35% of company representatives.

Generation Z is the first truly global generation, and consequently, there are few differences in how they perceive the impact of new technologies on their future. Consistent with our survey findings, globally 63% of Gen Z express concern that generative AI could eliminate jobs and make it harder for younger generations to find employment, as AI primarily automates tasks traditionally performed by junior positions [10].

The mentioned uncertainty underscores the need for clearer guidance, education, and structured learning pathways to help young professionals translate AI use into sustainable skill development.

The results suggest that, in the absence of clear strategies for reskilling, learning, and work redesign, AI

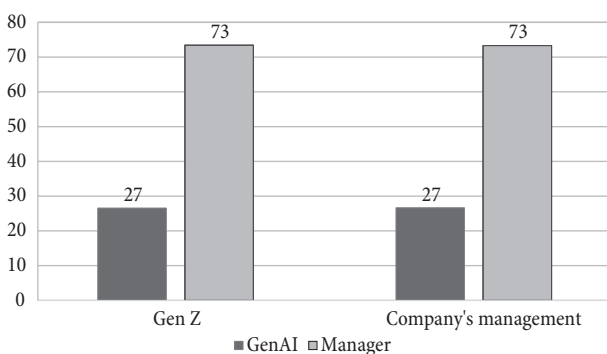
adoption may reinforce concerns about substitution rather than support augmentation and long-term employability. In this sense, Generation Z emerges as a key indicator of whether AI diffusion will primarily lead to job displacement or to the development of new roles and capabilities, as anticipated in more optimistic scenarios.

AI in the Workplace: Diverging Views of Leadership and Gen Z

Both company representatives and Gen Z respondents report, in the same percentage, that younger generations rely more on their colleagues and managers than on AI when they encounter uncertainty at work or require assistance (Figure 17). However, within both groups, some respondents reported lower levels of interaction with colleagues until AI was introduced (Figure 18). Right now, AI often assumes responsibility for routine tasks, which historically provided opportunities for informal workplace interactions. For instance, employees might engage in brief conversations while reviewing a report, asking questions, or coordinating tasks.

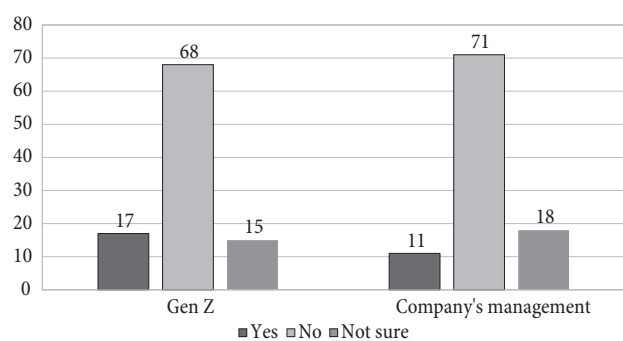
As highlighted in our previous research, Generation Z prioritizes adaptability by focusing on reskilling and exploring roles that are less susceptible to automation. Despite these efforts, many feel that their employers are not providing sufficient preparation for the changes that GenAI may bring [28]. This year’s research shows that 56% of Gen Z respondents either disagree or only somewhat agree that management supports experimenting with AI. On the other hand, management believes it is encouraging experimentation with AI (Figure 19).

Figure 17: Gen Z and Managers Rely on AI



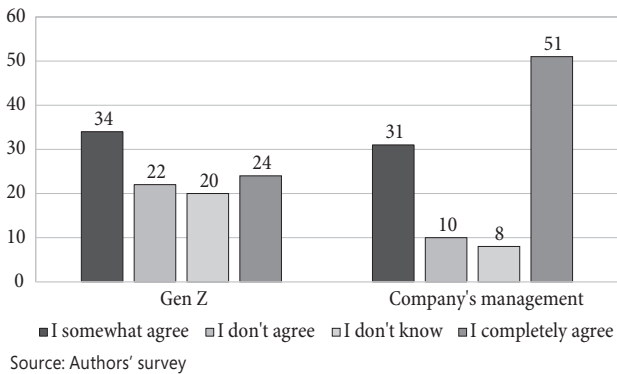
Source: Authors' survey

Figure 18: How Do You Assess the GenAI Impact on



Source: Authors' survey

Figure 19: Management Supports Experimenting with AI

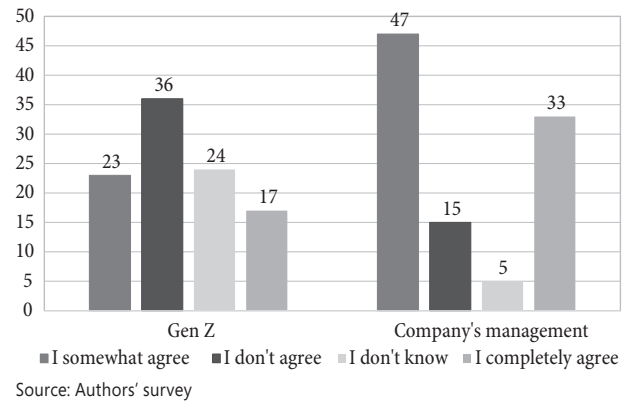


Agentic AI can act as a catalyst for a shift toward new models of work, in which the boundaries between human and machine labor are increasingly redefined. This transformation may create specific opportunities for Generation Z to act as drivers of change, given their digital fluency, openness to experimentation, and weaker attachment to traditional hierarchical work structures. However, McKinsey & Company emphasizes that the successful use of agentic AI depends on organizational conditions, including clear accountability structures, ethical guidelines, and continuous learning processes [22]. From this perspective, the potential of agentic AI to drive meaningful change largely depends on leadership's ability to articulate a clear vision and actively engage employees throughout the transformation process.

In our research, Generation Z respondents are twice as likely to disagree that the vision for AI implementation is clearly communicated or that they are sufficiently motivated to participate. In contrast, company representatives are twice as likely to fully agree with this statement. This divergence may suggest that AI strategies are articulated at the top but have not yet been effectively translated to non-executive levels of the organization, reflecting the current level of AI maturity and the fact that AI is not yet fully embedded in organizational processes (Figure 20).

This finding is particularly significant given that more than half of Generation Z respondents indicate that, in the future, they would prefer to work for companies that at least partially use AI, making education on responsible and effective AI usage a critical factor. Global Deloitte research [10] further underscores this importance, showing that learning and development rank among the top three

Figure 20: Management communicates clearly the AI vision



priorities for Gen Z when choosing a future employer. However, 65% of Gen Z respondents in our survey report receiving no AI-related education – neither at work nor during their university studies – even though around half of companies recognize that younger employees expect training in AI use. This disconnect highlights a missed opportunity for organizations to align talent expectations with their AI transformation agendas.

Conclusion

Companies in Serbia are using AI, and a growing number are beginning to deploy AI agents. However, although curiosity about the technology is high, most organizations remain in the early stages of scaling AI across the enterprise and generating value. This finding aligns with the broader debates discussed in the introduction, suggesting that AI-driven growth and competitiveness are shaped less by technology diffusion itself and more by firm-level adoption and integration choices. While interest in AI remains strong, tangible business results are limited, and the impact on profit margins is modest. The clearest benefits are seen in productivity gains and innovation across the organization, consistent with the literature that positions AI primarily as an efficiency-enhancing and enabling technology in its early phases of adoption rather than an immediate source of sustained competitive advantage. Generation Z is also very much actively engaging with AI and maintains a positive outlook, viewing it as a tool that supports learning and capability building. They rely primarily on AI for hard-skill-intensive tasks, perceiving it as most effective

in enhancing research and technical capabilities, while negotiation and communication skills lag behind. This pattern reflects the automation–augmentation tension discussed in the literature, where AI tends to support task execution and technical problem-solving more readily than the development of higher-order social and cognitive skills. Across both survey groups, our research identifies different opinions between management and Generation Z regarding AI implementation. While leaders believe they foster experimentation and communicate their AI vision clearly, Gen Z often does not experience support. Additionally, despite a strong interest in working for AI-enabled organizations, most younger employees report limited access to education and training on AI usage. Closing this gap through structured learning, transparent communication, and meaningful engagement is essential to align AI strategies with the expectations and development needs of Generation Z and to ensure that AI adoption contributes to long-term employability and competitiveness rather than reinforcing short-term efficiency gains alone.

We can conclude that competitiveness in the age of AI depends not only on technology adoption but primarily on an organization's ability to embed AI into its core processes and valuecreation mechanisms while simultaneously developing essential human capabilities. As AI continues to advance and Generation Z assumes increasingly significant roles within organizations, the alignment between technological evolution and workforce development will become a decisive differentiator. Organizations that succeed in narrowing this organizational-individual gap will be best positioned to transform AI from a source of incremental efficiency into a foundation for sustained competitive advantage. Without such alignment, AI adoption remains largely experimental and generates operational improvements rather than true strategic differentiation.

References

1. Acemoglu, D. (2025). The simple macroeconomics of AI. *Economic Policy*, 40(121), 13-58. <https://academic.oup.com/economicpolicy/article-abstract/40/121/13/7728473>
2. Aghion, P., Bunel, S., & Jaravel, X. (2025, January). *What AI means for growth and jobs*. Project Syndicate. <https://www.project-syndicate.org/commentary/ai-will-boost-productivity-growth-without-harming-jobs-employment-by-philippe-aghion-et-al-2025-01>
3. Aghion, P., & Bunel, S. (2024). *AI and growth: Where do we stand?* Federal Reserve Bank of San Francisco. <https://www.frbsf.org/wp-content/uploads/ai-and-growth-Aghion-Bunel.pdf>
4. Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
5. Brynjolfsson, E. (2026, January 2). AI changed work forever in 2025. *Time*. <https://time.com/7342494/ai-changed-work-forever/>
6. Brynjolfsson, E., Li, D., & Raymond, L. R. (2023). *Generative AI at work* (NBER Working Paper No. 31161). National Bureau of Economic Research. <https://www.nber.org/papers/w31161>
7. Brynjolfsson, E., Li, D., & Raymond, L. R. (2025). Generative AI at work. *The Quarterly Journal of Economics*, 140(2), 889-94.
8. Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. W. W. Norton & Company.
9. Chun, Y., Hur, J., & Hwang, J. (2024). AI technology specialization and national competitiveness. *PLOS ONE*, 19(4), e0301091. <https://doi.org/10.1371/journal.pone.0301091>
10. Deloitte. (2025). *2025 Gen Z and Millennial Survey*. Deloitte. <https://www.deloitte.com/content/dam/assets-shared/docs/campaigns/2025/2025-genz-millennial-survey.pdf>
11. European Commission. (2025). *European Innovation Scoreboard 2025*. <https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/c102236e-66b2-11f0-bf4e-01aa75ed71a1>
12. Federal Reserve Bank of New York. (2025, September 4). Are businesses scaling back hiring due to artificial intelligence? *Liberty Street Economics*.
13. Goldman Sachs Global Investment Research. (2023, March 26). *The potentially large effects of artificial intelligence on economic growth* (Global Economics Analyst report).
14. Harvard Business Review. (2026, January 29). *AI and humane leadership: A Davos discussion*. *Harvard Business Review*. <https://hbr.org/2026/01/ai-and-humane-leadership-a-davos-discussion?utm>
15. Helfat, C. E., Kaul, A., Ketchen, D. J., Jr., Barney, J. B., Chatain, O., & Singh, H. (2023). Renewing the resource-based view: New contexts, new concepts, and new methods. *Strategic Management Journal*, 44(6), 1357-1390.
16. Hinton, G. (2025, December 28). *The state of the union* [Interview]. CNN. <https://edition.cnn.com/2025/12/28/politics/video/godfather-of-ai-warns-it-has-progressed-faster-than-originally-thought>
17. INSEAD. (2025). *Global Innovation Index*. World Intellectual Property Organization WIPO 2025. https://www.wipo.int/global_innovation_index
18. NSEAD & Portulans Institute. (2025). *Global Talent Competitiveness Index 2025: Talent and resilience - Navigating an era of disruption* (11th ed.). <https://www.insead.edu/global-talent-competitiveness-index>
19. International Monetary Fund. (2025). *AI Preparedness Index (API)* [Data set]. IMF DataMapper. <https://www.imf.org/external/datamapper/datasets/API>
20. McKinsey & Company. (2025). *Global Banking Annual Review 2025: Why precision, not heft, defines the future of banking*.

- McKinsey & Company. <https://www.mckinsey.com/industries/financial-services/our-insights/global-banking-annual-review>
21. McKinsey & Company. (2025). *The state of AI: Global survey 2025*. <https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai>
 22. McKinsey & Company. (2025). *Superagency in the workplace: Empowering people with AI*. <https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/superagency-in-the-workplace>
 23. OECD. (2024). *The impact of artificial intelligence on productivity, distribution and growth*. OECD Publishing. <https://www.oecd.org/digital/artificial-intelligence/productivity-distribution-growth/>
 24. PwC (2023). *26th Annual Global CEO Survey*. PricewaterhouseCoopers.
 25. Rachmad, Y. E. (2025). *Managing Gen Z: Competencies and certification as the key to success*.
 26. Raisch, S., & Krakowski, S. (2021). Artificial intelligence and management: The automation–augmentation paradox. *Academy of Management Review*, 46(1), 192-210. <https://doi.org/10.5465/amr.2018.0072>
 27. Savić, N. (2024). Ekonomske dileme digitalnog doba i konkurentnost. In G. Pitić & B. Vujović (Eds.), *Digitalna prizma* (pp. 47-72). Vulkan & FEFA.
 28. Savić, N., Lazarević, J., Grujić, F., & Čolić-Mihajlović, V. (2025). Competitiveness of Generations Z and Alpha in the Age of GenAI. *Economics of Enterprise*, 73(1-2), 115-133.
 29. Savić, N., Lazarević, J., Jeličić, A., & Grujić, F. (2024). Digital economy and new capitalism: Generation Z as a consumer. *Economics of Enterprise*, 72(1-2), 107-123.
 30. Spence, M. (2025a). Can AI Deliver Broad-Based Prosperity? *Project Syndicate*. <https://www1.project-syndicate.org/commentary/ai-productivity-gains-risk-exacerbating-inequality-by-michael-spence-2025-07>.
 31. Spence, M. (2025b). Why Emerging Economies Are Embracing AI. *Project Syndicate*. <https://www1.project-syndicate.org/commentary/emerging-economies-can-use-ai-to-advance-social-economic-goals-by-michael-spence-2025-11>
 32. Spence, M. (2025c). The AI diffusion challenge. *Project Syndicate*. <https://www1.project-syndicate.org/commentary/whether-ai-meets-expectations-depends-on-diffusion-and-policy-support-by-michael-spence-2025-12>
 33. Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
 34. Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
 35. Xing, X., Zhang, Z., & He, W. (2026). AI technology, AI narrative, and firm value. *Technovation*, 149, 103349. <https://doi.org/10.1016/j.technovation.2025.103349>
 36. World Economic Forum. (2025). *The future of jobs report 2025*. WEO, 2025. Geneva.
 37. World Intellectual Property Organization. (2025). *Global Innovation Index 2025: Innovation at a crossroads* (18th ed.). <https://www.wipo.int/web-publications/global-innovation-index-2025/en/index.html>



Žaklina Teofilović

has twenty years of professional experience in human resources management, including the past ten years in the competitive and technology-intensive aerospace industry. Since 2019, she has served as HR Director at MTU Maintenance Serbia, part of the MTU Aero Engines Group, where she developed the HRM system for a modern aircraft engine maintenance facility in Serbia. She teaches organizational behavior and leadership at the FEFA Faculty, supporting the faculty's efforts to educate and shape future business leaders. She is a co-founder of the Spark Hub leadership development platform, with the annual Spark Leadership Conference as its central activity. She is in the final stage of her PhD studies in HRM and strives to contribute to professional and academic dialogue on leadership, technology, and human resources.



Nebojša Savić

is Professor Emeritus at FEFA Faculty, teaches Economics and Competitiveness, and was a MOC affiliate faculty member of the Harvard Business School Institute for Strategy and Competitiveness. He was the president of the Council of the Governor of the National Bank of Serbia (2012-2023). He has more than forty years of experience in company restructuring and institution building toward a market economy. Professor Savić was a member of top expert teams advising on economic reform policies in Serbia. He was a member of the Serbian National Competitiveness Council (2008-2012) and previously served as President of the Yugoslav Economists Association and Editor-in-Chief of Economic Barometer, the leading monthly business-cycle publication on the Yugoslav economy. He was a member of the Board of Directors of Alpha Bank Serbia (2006-2012) and President of the Board of Directors of Komercijalna banka, Serbia (2003-2005). He holds PhD and MA degrees from the Faculty of Economics, University of Belgrade. Dr. Savić has authored seven books (including Savić, N. and Pitić, G., *Eurotransition: Challenges and Opportunities*, 1999) and more than sixty articles.



Jelisaveta Lazarević

is an Associate Professor and Vice Dean at the FEFA Faculty. She is also the Chief Content Officer at Bloomberg Adria, responsible for developing and implementing the content strategy and overseeing its distribution across all platforms in five markets. She started her career at the Center for Advanced Economic Studies, where she had the opportunity to work on a World Bank project for the Ministry of Economy: Employment and Competitiveness, and she specifically focused on the analysis of value chains in the sectors of the economy with the greatest development potential. She is a strong believer in inclusive innovation-driven development and for two years she was Head of Corporate Partnerships at All for All organization, where she is a board member. Jelisaveta completed her undergraduate and master's studies at the FEFA Faculty as a student of the generation. During her undergraduate studies, she was named one of the best economics students in Serbia by the Serbian Association of Economists. She defended her Ph.D. dissertation at the FEFA Faculty in the field of business economics on the topic: Essays on strategy and innovation. At the FEFA Faculty, she works on projects that contribute to the competitiveness of the economy, especially through the research of companies that are defined as "hidden champions." During her career so far, she has received several awards, such as being selected as a future leader of Europe by the French Ministry of Europe and Foreign Affairs. She participated in the Open World Leadership Program funded by the U.S. Congress. Jelisaveta has been awarded two Campus France scholarships for research in the field of scientific research commercialization and science-industry collaboration, which she carried out at Lille University, the FEMTO-St Institute, and INRIA.



Ivan Pribičević

is the founder and CEO of Simplify, and an Associate Professor at the FEFA Faculty, where he teaches New Technologies in Business and Business Process Management. He also serves as a guest lecturer at the American University in the Emirates, SP Jain School of Global Management, and the Abu Dhabi University. With a career span of over 600 companies in more than 20 countries, Ivan's core expertise lies in Business Process Management, with a strong focus on process automation and artificial intelligence. He holds a Ph.D. from the Faculty of Organizational Sciences, University of Belgrade, where he also completed his master's degree in organizational sciences. In addition, he earned a master's degree in international politics from the Faculty of Political Sciences, and an Executive MBA from Quantic School of Business and Technology. Ivan is a certified Lean Six Sigma Black Belt. Since 2012, he has been an active member of the Serbian Association of Managers (SAM), which recognized him with the "Young Manager of the Year" award in 2020. He is also a co-founder of Voltic Global and Adriatic Spirits.