



Artificial Intelligence Policies Association (AIPA) Research for the Future

Artificial Intelligence Perception in Establishments -

4

Zafer Küçükşabanoğlu, Artificial Intelligence Policies Association (AIPA)
Volkan Kılıç, Kuantum Research

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As the first official non-governmental organization established in the field of artificial intelligence in Türkiye, AIPA has been conducting studies for five years that approach the country's technological transformation not merely as a technical issue, but also from the perspectives of economic competitiveness, institutional capacity, and strategic management. In line with this approach, the "Artificial Intelligence Perception in Businesses Research" constitutes an important study that presents data-driven insights into how the private sector in Türkiye perceives artificial intelligence and the speed of transformation in this area.

The research results show that businesses now consider artificial intelligence not as a continuation of traditional digitalization processes, but as a critical element directly influencing decision-making mechanisms, productivity growth, and competitive strategies. Among the participating companies, 25.2% report that they actively use AI applications, 76.5% state that these technologies increase efficiency, and at the senior management level, AI is regarded not merely as a tool for cost optimization but as a strategic component of growth. These findings indicate that the business community in Türkiye is developing an increasingly positive outlook on artificial intelligence, suggesting a trend toward broader adoption in the coming years.

However, the research also reveals that issues such as competency gaps, governance needs, data security, and shadow AI usage represent critical areas that businesses must manage carefully. This underscores, once again, the importance of establishing robust foundations for both public policies and corporate strategies.

As AIPA, our aim in conducting this research is to shed light on the AI journey of businesses in Türkiye and to provide a reliable basis for assessment for the business world, policymakers, and all stakeholders. Artificial intelligence is not merely a technological advancement; it is a fundamental strategic factor that determines the competitive advantage of enterprises. We hope that this report will contribute to preparing our companies more effectively for this transformation process.

I hope that this research will be beneficial to the business community in our country.

Sincerely,

Zafer KÜÇÜKŞABANOĞLU
Artificial Intelligence Policies Association (AIPA) Founder and Chairman
RecroTech Founder and Chairman



Our research results indicate that businesses in Türkiye have begun experimenting with both predictive and generative AI tools. However, AI usage within companies remains largely limited and is mostly driven by public relations motives. To create real value with AI technologies and to achieve positive transformation outcomes, AI must be integrated into critical processes—such as customer relations, production lines, supply chain operations, and financial functions—and the transformation must be monitored through concrete performance parameters.

Marketing currently leads AI adoption within companies, where AI tools are predominantly used for chatbots, content generation, and advisory assistant functions.

With today's technologies, it is possible for human professionals to work alongside AI agents (Multi-Agent Systems), and businesses that do so attain measurable results. Considering Türkiye's workforce and organizational structures, it is evident that Agentic AI projects will significantly boost productivity metrics and put companies that fail to adapt at a substantial disadvantage.

Responses from white-collar managers also show that companies have not yet developed sufficient AI strategies. At the same time, although corporate AI usage stands at 25.2%, an additional 14.0% of businesses report the presence of AI usage within their organizations despite it not being officially sanctioned at the corporate level. In other words, there is a 14% rate of shadow AI usage—bringing with it risks related to regulatory non-compliance and cybersecurity vulnerabilities.

The overall picture drawn by the research is clear: Businesses in Türkiye are discussing artificial intelligence, but rather than managing it, they remain in a position of being subjected to it. To create genuine competitive advantage, companies must place these fragmented usage patterns within a strategic framework, gain control over shadow AI, and transition to an AI roadmap that monitors all business processes through measurable targets. Otherwise, the gap between them and companies that adopt artificial intelligence in a comprehensive manner is likely to widen even further.

Sincerely,

Volkan Kılıç
Artificial Intelligence Policies Association (AIPA) Vice President
Kuantum Research Founder



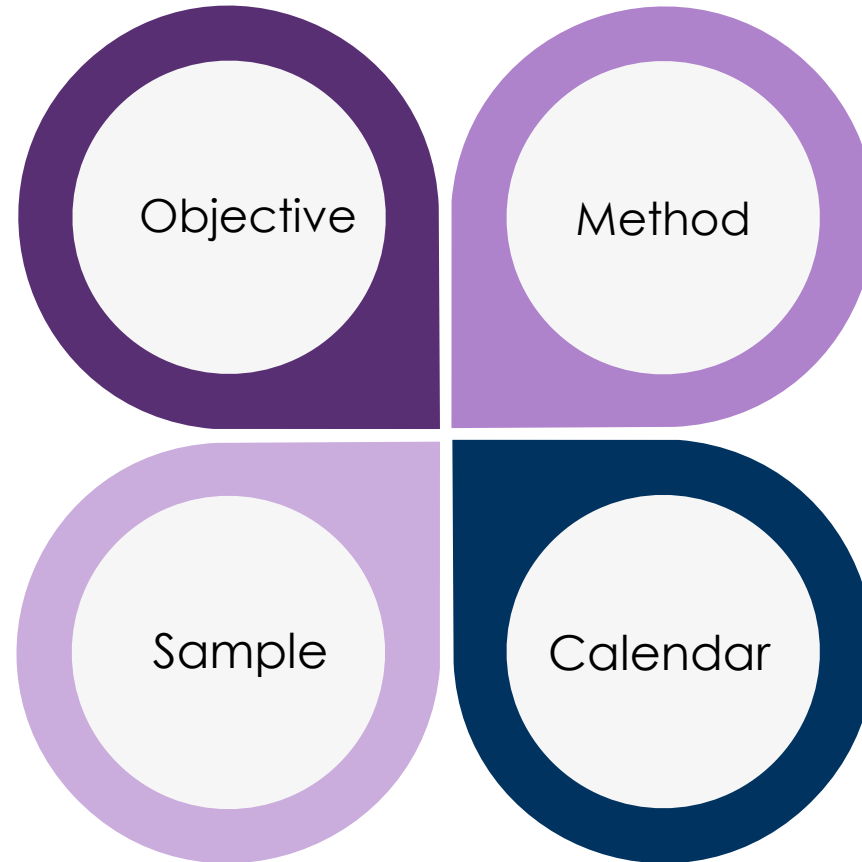
Artificial Intelligence Perception in Establishments



To investigate and analyze the extent to which businesses use information technologies and artificial intelligence, as well as their opinions and perceptions on these subjects. Additionally, to monitor the behavioral changes of businesses over a four-year period.

	2021	2022	2023	2024-2025
Base	847	847	1225	992

Interviews were conducted with micro, small, medium, and large enterprises across 12 provinces:
847 enterprises in 2021 and 2022,
1,225 enterprises in 2023,
and 992 enterprises in 2024–2025.



A hybrid method (CAWI and CATI) was applied.
CAWI (Computer-Assisted Web Interviewing)
CATI (Computer-Assisted Telephone Interviewing)

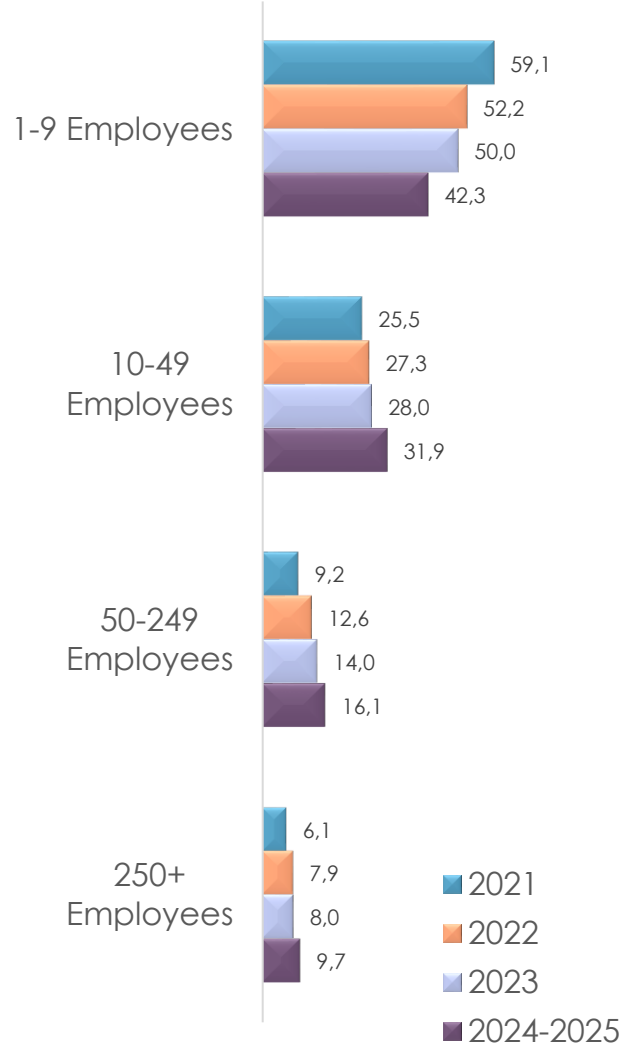
Fieldwork
August 2025

Data Control
September 2025

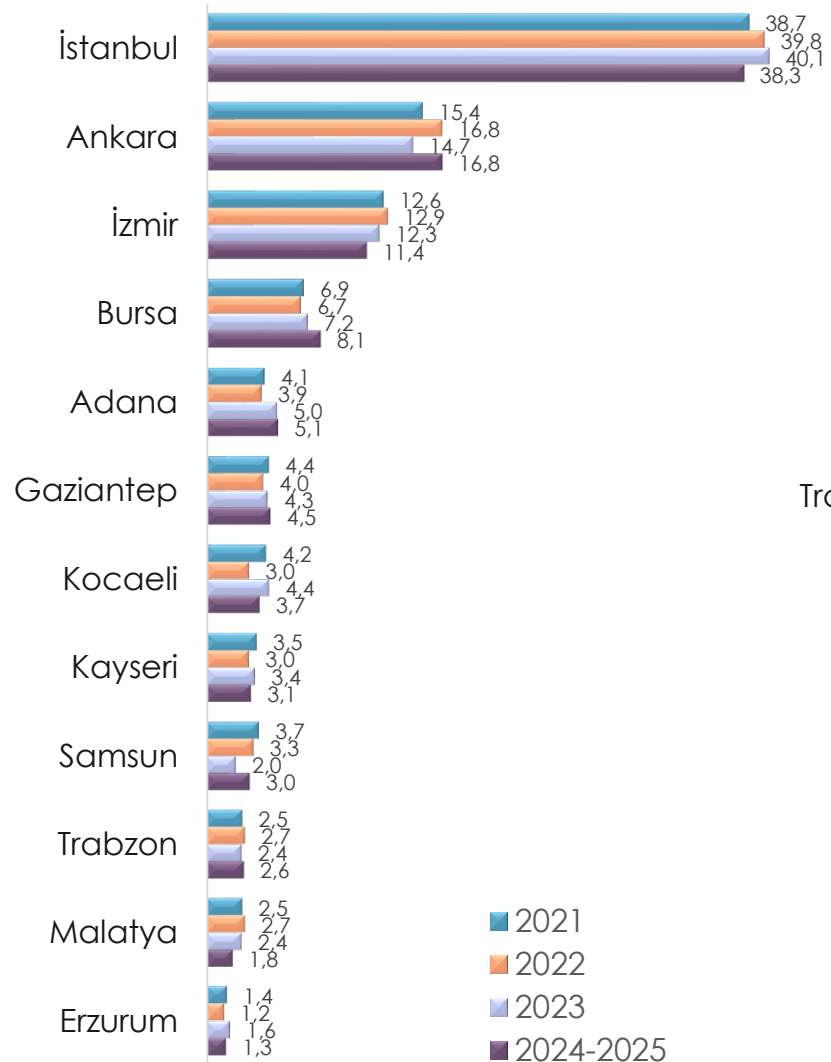
Analysis and Reporting
December 2025



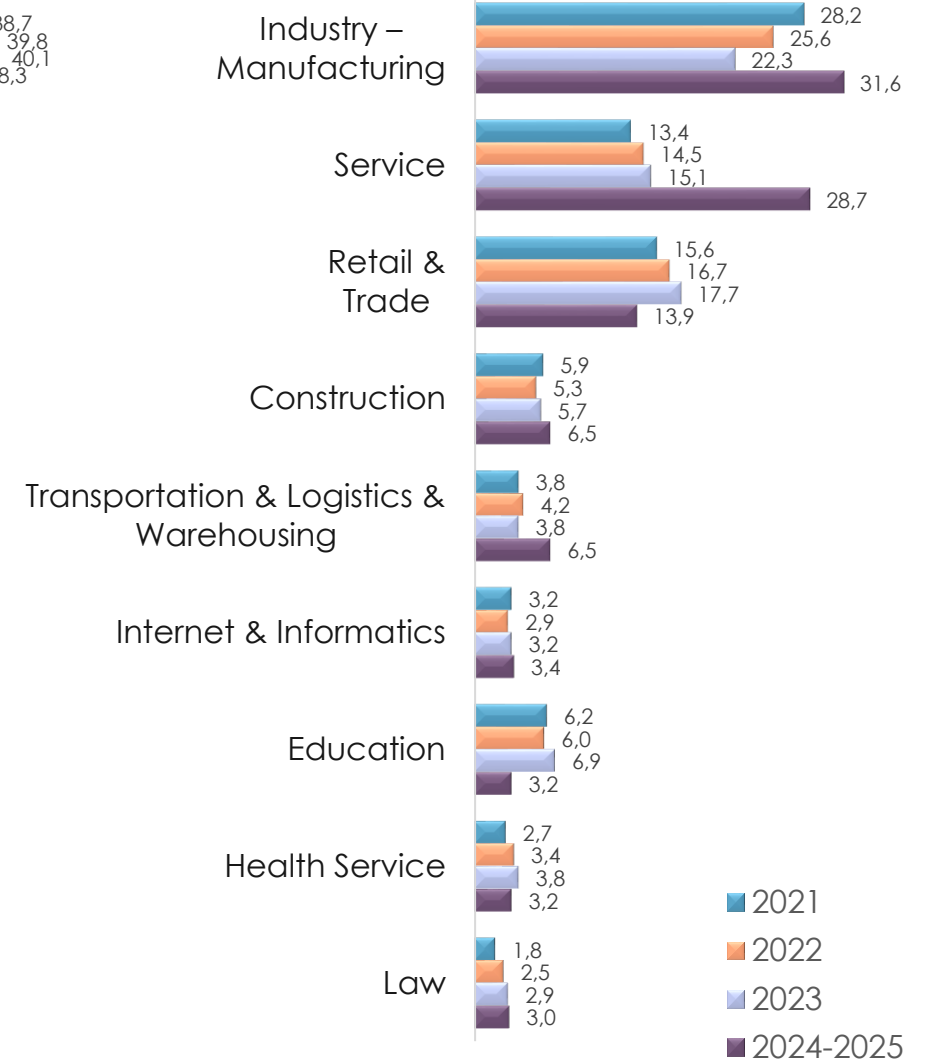
Enterprise Size



Province



Industry



The background is a dark, textured surface with a complex network of glowing lines and dots. The lines are primarily blue and orange, with some white dots. They are arranged in a way that suggests a network or a data flow, with some lines curving and others straight. The overall effect is a sense of depth and movement, with the lines and dots appearing to be part of a larger, unseen structure.

AI Awareness



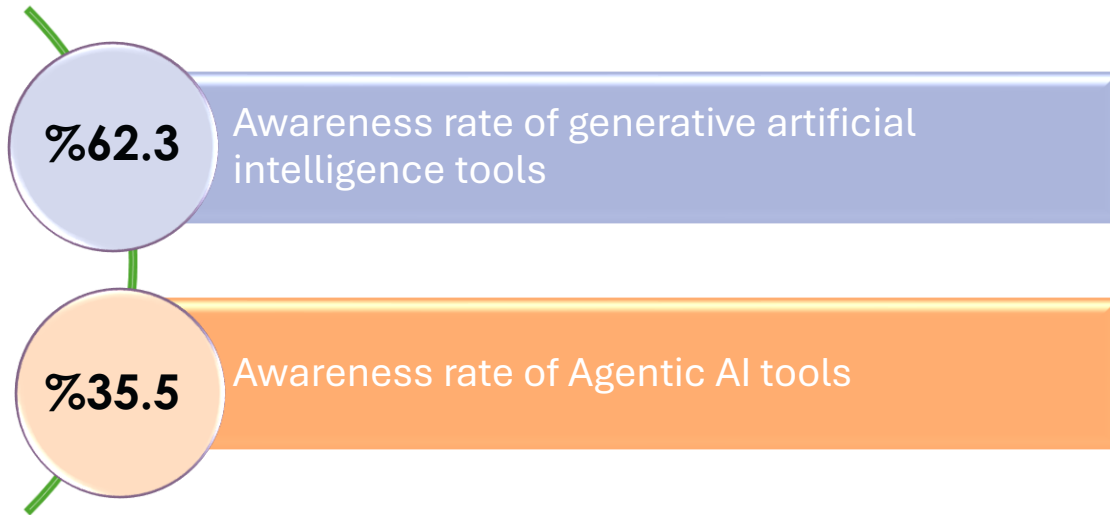
Artificial Intelligence Perception in Establishments

- Have you heard of Generative AI?
- Have you heard of "Agentic AI" (AI capable of autonomous planning and action)?

Awareness of AI Tools



Awareness of Generative AI and Agentic AI Tools (%)



Base: 992

While 62.3% of the businesses interviewed have heard of generative AI tools, the awareness rate for Agentic AI tools is 35.5%.

37.7% of the businesses interviewed have not heard of generative AI tools.

41.9% of the businesses interviewed have not heard of Agentic AI tools, while 22% stated that they are unsure whether they have heard of them.

The background of the slide is a dark blue gradient with a complex pattern of thin, golden-yellow lines. These lines are mostly straight but have a slight curve, creating a sense of depth and movement. They intersect to form a grid-like pattern that is more dense in some areas and more sparse in others. The overall effect is a modern, technological, and abstract aesthetic.

AI Usage Behaviors of Businesses Using AI



Artificial Intelligence Perception in Establishments

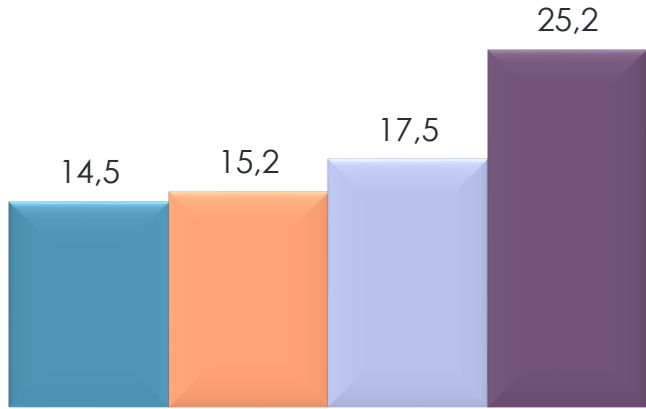
- Do you use AI tools at an organizational level in your work?
- In which departments do you use them?
- In which areas do you use them?

AI Adoption



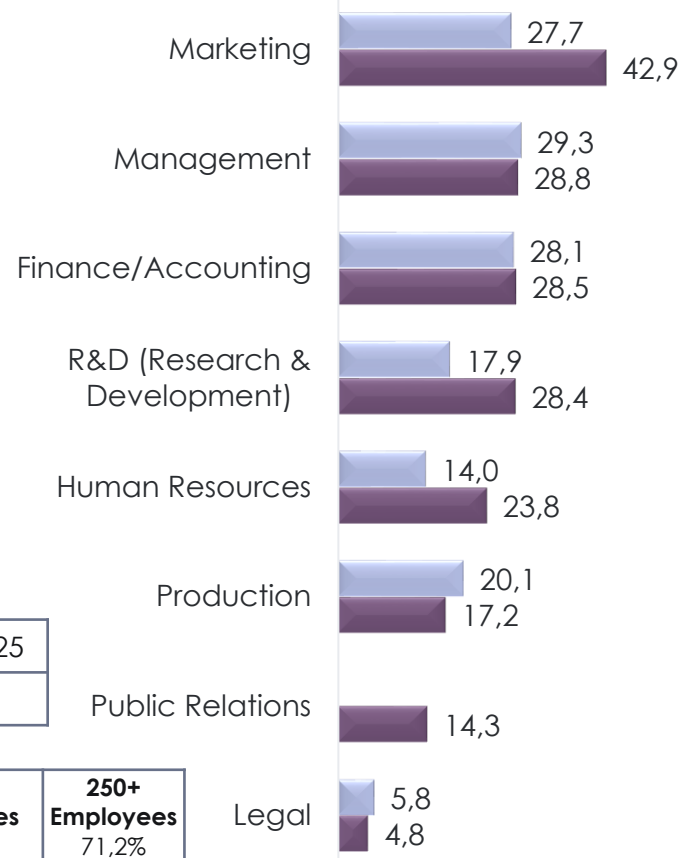
The use of artificial intelligence in businesses has increased to 25.2%. As in the previous year, its application continues to grow, particularly in marketing and customer experience. In addition to customer experience and analytics, AI technologies are increasingly being used in creative areas such as content creation, design, and similar functions.

Change in Artificial Intelligence Usage Compared to Previous Years



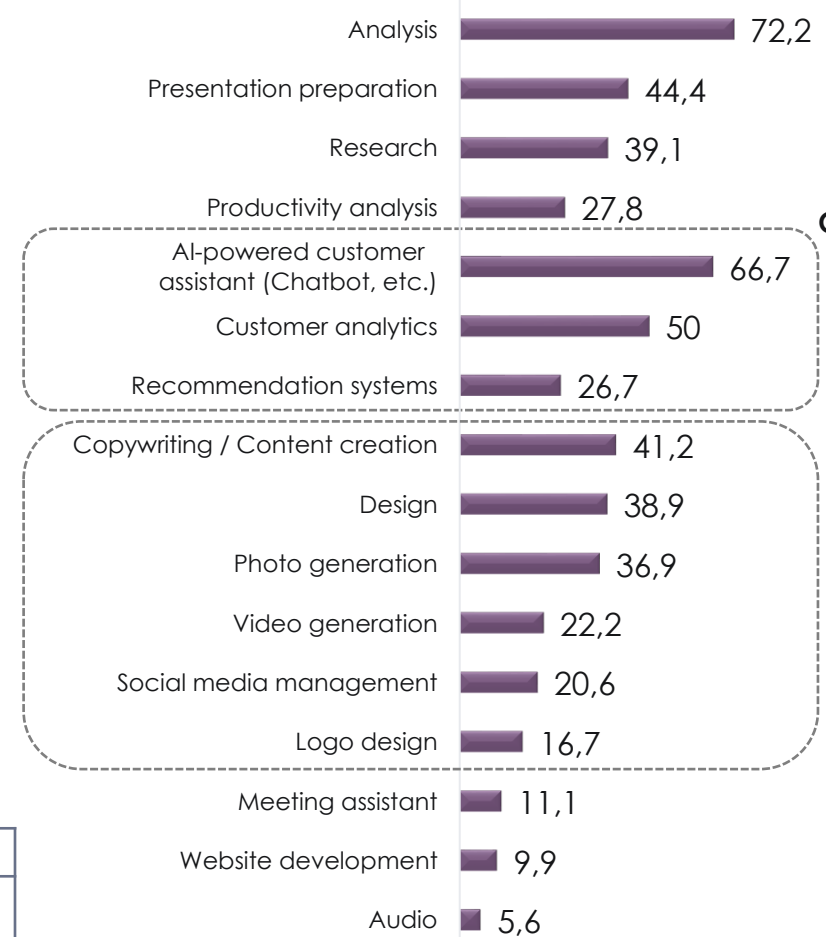
■ 2021 ■ 2022 ■ 2023 ■ 2024-2025

Departments Using AI



	2023	2024-2025
Base (AI Users)	214	250

Areas of Use



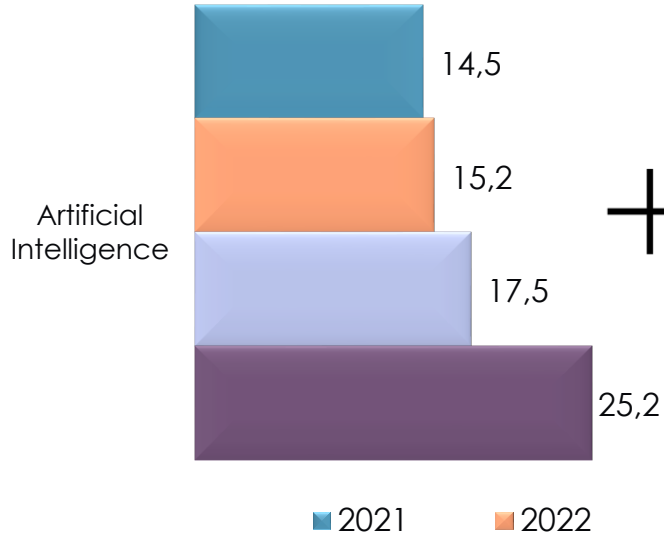
Customer Relations / Analytics and Marketing
%55.0 → %70.0+
→ %76.0+

Creative Areas
%26.0 → %32.0

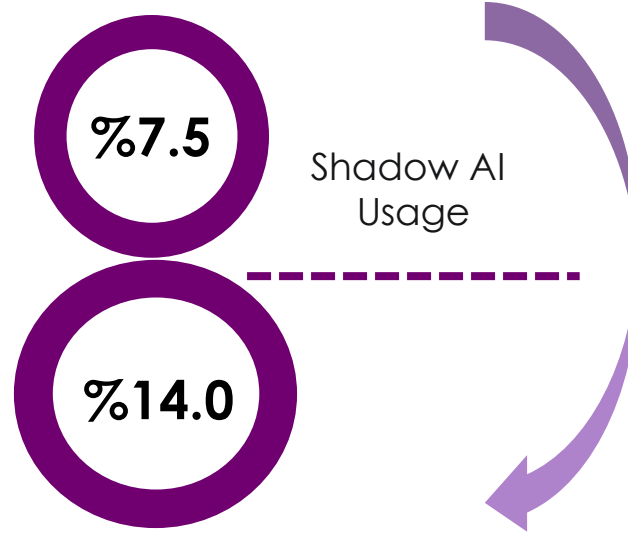
	1-9 Employees	10-49 Employees	50-99 Employees	100-249 Employees	250+ Employees
2021	9,8%	16,3%	35,7%	38,2%	71,2%
2022	12,7%	15,9%	34,9%	38,9%	72,8%
2023	12,4%	16,2%	36,3%	35,1%	74,6%
2024-2025	17,7%	20,9%	42,2%	41,5%	81,3%



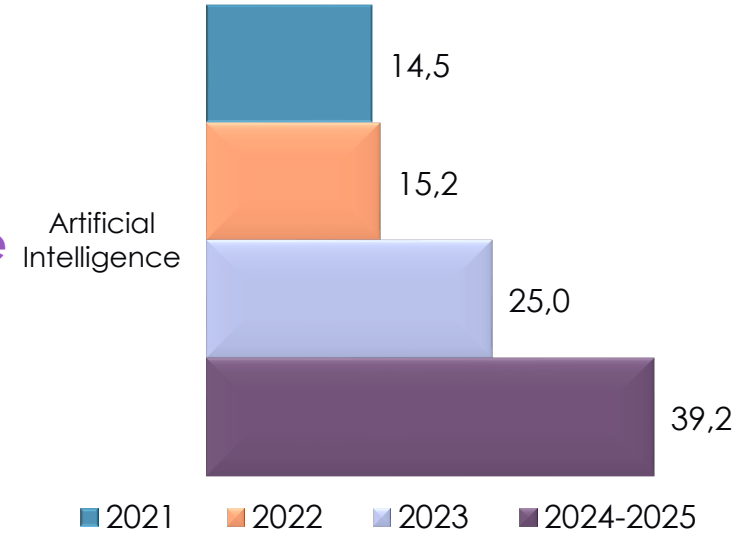
Digital Technologies in Use



Impact of Shadow AI

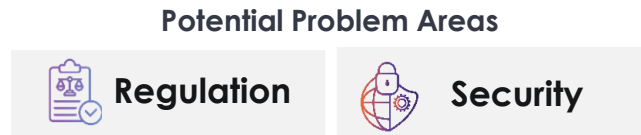


Business Use of Artificial Intelligence



Shadow AI;

Shadow AI refers to the use of artificial intelligence by employees on an individual level, despite the organization not officially using AI. With shadow AI usage included, the AI adoption rate within the Turkish business ecosystem reaches 39.2%. In 14.0% of the companies, although AI is not used corporately shadow AI emerges due to professionals using AI individually. While this may seem positive, it inherently carries significant regulatory and security risks. To mitigate such risks, both organizations and employees should undergo training to adapt technically and responsibly.



	2021	2022	2023	2024-2025
Base	847	847	1225	992



Artificial Intelligence Perception in Establishments

- Did you use AI technologies in previous years?
- How has your usage of AI technologies changed compared to previous years?
- You indicated that your usage of AI technologies has increased compared to previous years. In which departments did you increase usage?



Continuity of AI Usage

52.4% New Users

Currently, 52.4% of businesses using artificial intelligence have only recently started utilizing AI technologies.

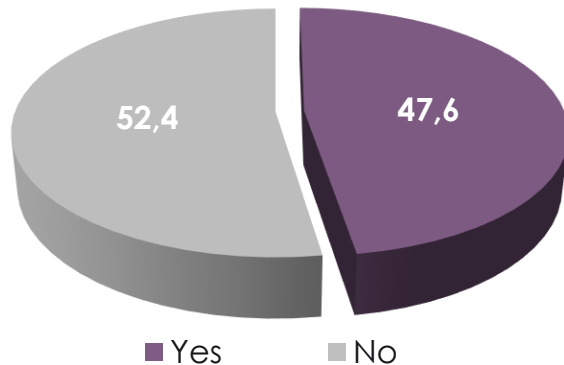
60.0% Increase in Usage Areas

Currently, 47.6% of businesses using artificial intelligence had also utilized AI technologies in previous years. These businesses have increased their usage this year by a significant 60.0%.

Leading Department in AI Usage: Marketing

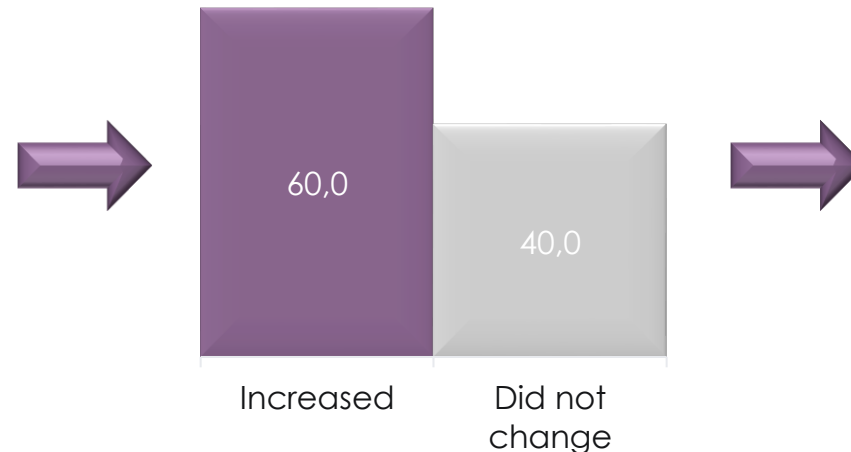
The department with the highest increase in AI usage appears to be marketing. The fact that businesses are primarily expanding the use of these technologies in the marketing department indicates that marketing serves as a "leading department." It suggests that companies are conducting their initial AI experiments in marketing and, due to the quick results achieved, continue to increase their investment in this area.

Previous Period Usage of AI Users (%)



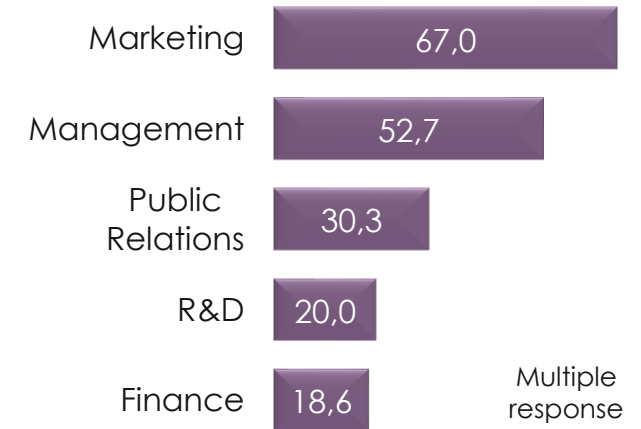
Base (AI Users): 250

Change in AI Users' Usage Compared to Previous Periods (%)



Base (Businesses Using AI in Previous Years): 119

Departments with Increased AI Usage Compared to Previous Periods (%)



Base (Businesses Increasing AI Usage Compared to Previous Years): 71

Multiple response



Artificial Intelligence Perception in Establishments

- How will your AI technology usage change next year?
- You indicated that your AI technology usage will increase next year. In which departments do you expect this increase?

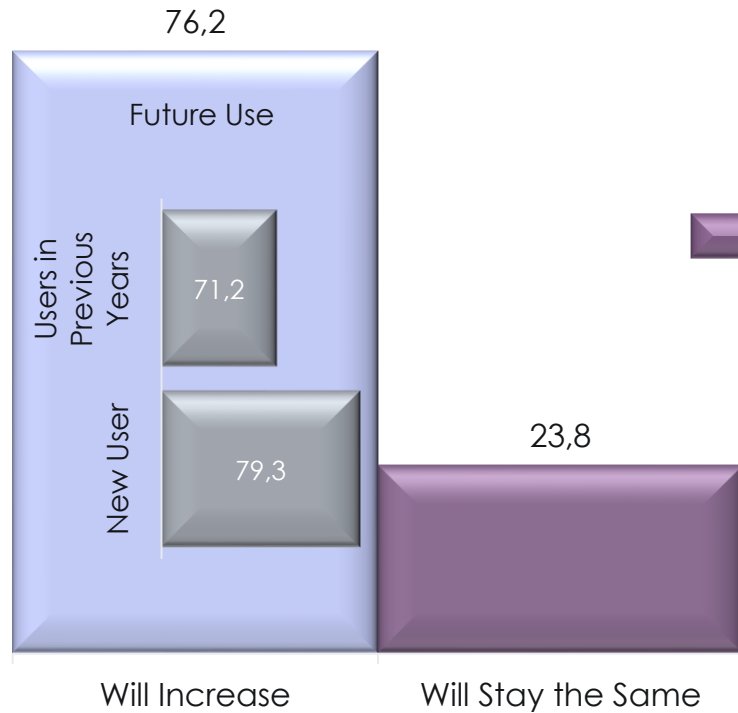
Future AI Usage



Planned Change in AI Usage by Users in the Upcoming Period (%)

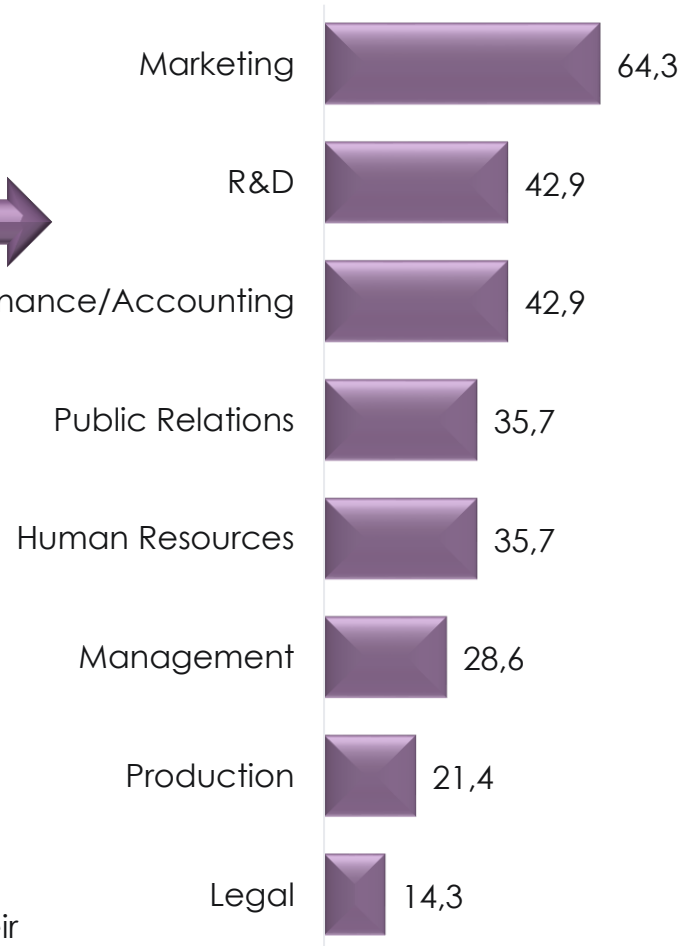
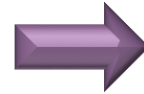
Departments Expected to Increase AI Usage in the Upcoming Period (%)

Adaptation Accelerates: New Users Following the Lead of Existing Users



Base (AI Users): 250

Multiple response
Base (Those Who Will Increase Their AI Usage Next Year): 190



Currently, 76.2% of businesses using artificial intelligence technologies have indicated that they plan to increase their usage next year.

The fact that both new and existing users plan to increase their usage at similar levels in the upcoming period suggests that new users are **attempting to close the gap** in AI technology adoption. However, since businesses that have been using AI for previous years already have high usage levels, increasing their usage next year will **likely widen the gap** between new and existing users. This highlights the adaptation advantage of existing users while reflecting the differences arising from new users still being at the initial stage.

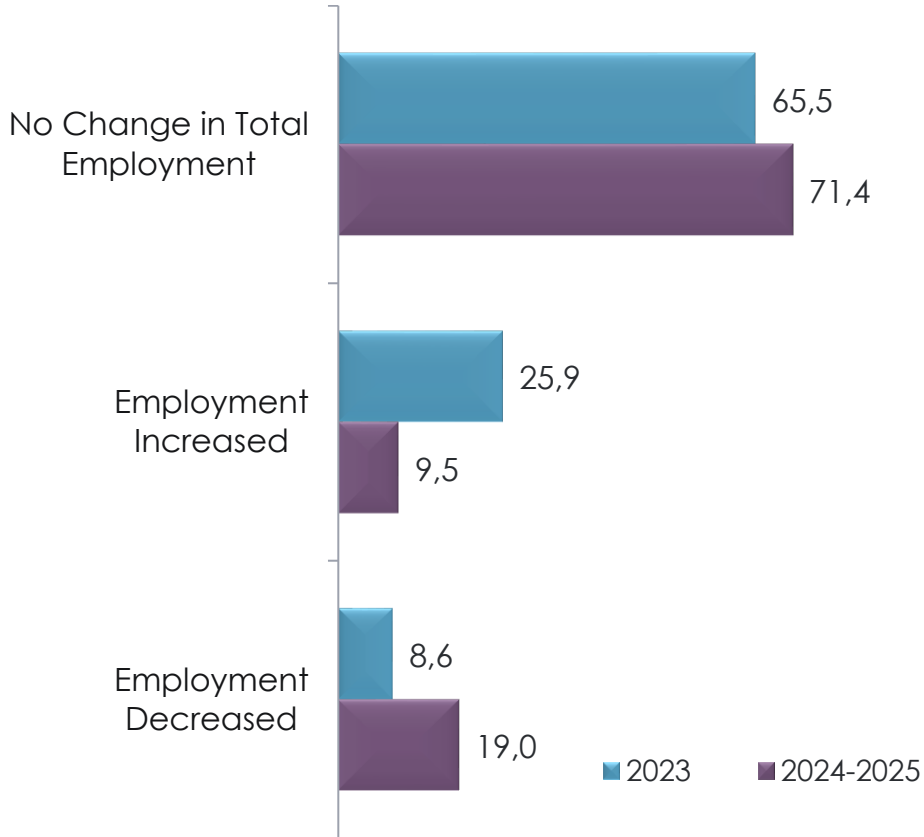
When examining the areas of increased usage, we have already observed that marketing is the leading department. Looking at plans for the coming year, businesses also intend to increase AI usage primarily in the marketing department.



Effect of Artificial Intelligence (AI) Usage on Employment



Impact of Artificial Intelligence on Employment



	2023	2024-2025
Base (AI Users)	214	250

2021: No Decline in Employment, but Warning Signs Are Ringing

In 2021, businesses that began investing in artificial intelligence and started using these technologies in specific departments began showing early signs of reduced employment in those areas. However, these same businesses also clearly indicated a strong need for technical and skilled personnel to further develop the technologies and integrate them into their business processes.

2023: Employment Balance Maintained

By 2023, analyzing the changes in employment structures of businesses actively using artificial intelligence technologies, it was observed that 8.6% of companies experienced a reduction in employment due to AI adoption. Notably, workforce reductions were particularly evident in departments where these technologies were heavily utilized.

At the same time, 25.9% of businesses increased their hiring of skilled personnel to adapt to AI systems and integrate them into business processes. In other words, while some areas saw a decrease in workforce, there was a rise in qualified personnel in positions requiring specialized expertise.

Considering the economic context of 2023, businesses' efforts to quickly integrate AI solutions into their operations to reduce costs have created imbalances in employment structures, causing the employment scale to experience short-term disruptions.

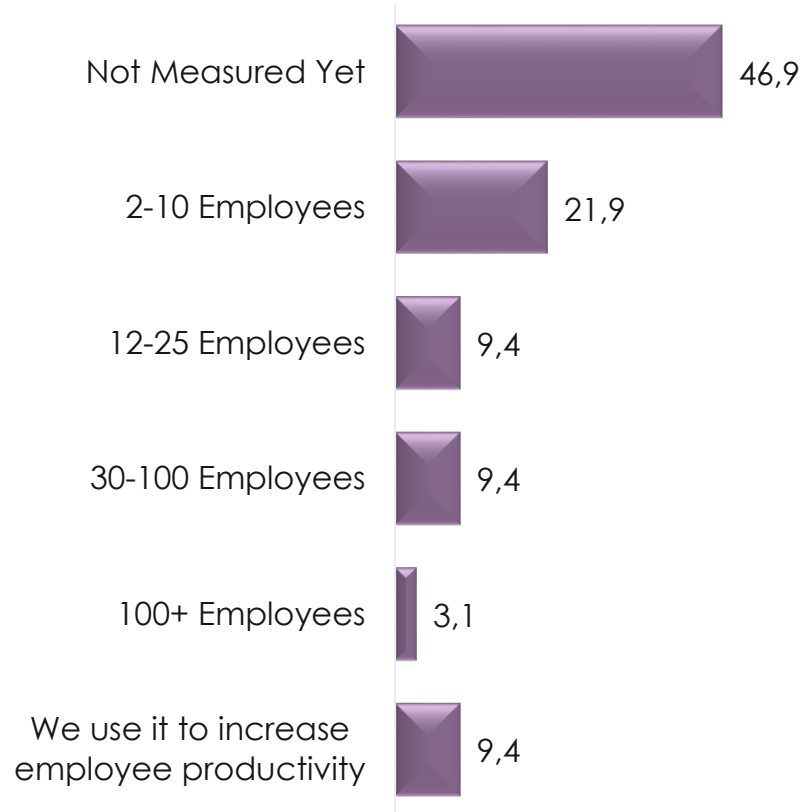
2025: Employment Balance Disrupted

When examining the impact of artificial intelligence technologies on employment in 2024–2025, a significant change becomes evident. In previous years (especially in 2023), the increase in demand for skilled personnel had maintained overall employment balance. However, in 2024–2025, this balance appears to have been substantially disrupted. Businesses are now using AI systems on a much broader scale. Although there is a 9.5% increase in employment of skilled personnel, this represents a notable decline compared to 2023. This may indicate that companies have largely completed the integration of AI technologies and now require fewer new hires, signaling a clear disruption in the employment balance.

Currently, 52.4% of businesses using AI technologies are new users. Even though the use of AI has not yet caused a significant impact on employment, the employment balance has already been disturbed. With the adoption of these technologies by 52.4% of new users, it is anticipated that the employment balance could face further disruption, presenting a more challenging scenario.



Number of Employees Equivalent to AI (%)



So, what do the CEOs at the helm of businesses that use AI intensively say?

The leaders in AI usage are primarily large-scale, enterprise-level businesses, accounting for approximately 80%. The CEOs of these companies have evaluated the impact of AI technologies on employment. According to the data, 21.9% of CEOs reported a change in workforce size of 2–10 employees as a result of efficiency and speed gains provided by AI. However, 46.9% of CEOs stated that this impact has not yet been measured.

Base: 35

***Number of CEO interviews in the study: 35**



Benefits, Future Perspective, and Personal Adoption of Artificial Intelligence

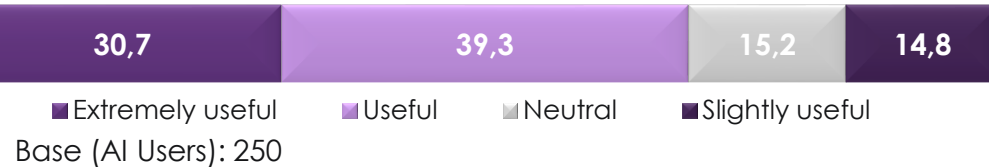


Artificial Intelligence Perception in Establishments

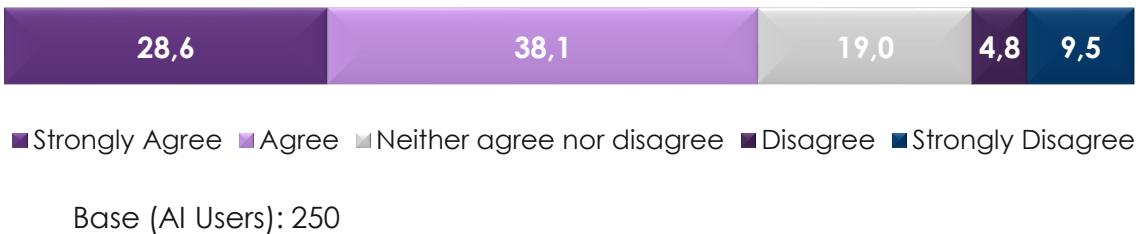
- What benefits do you think AI technologies will bring to your organization?
- I believe AI technologies will positively impact my business in the future.
- To what extent do you personally trust the integration of AI, including generative AI, into core processes in your company?



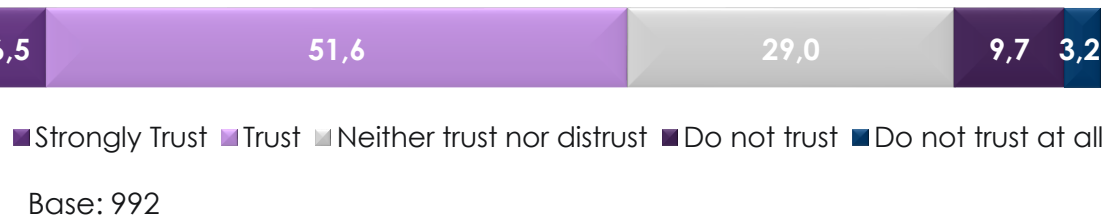
Benefits of AI Technologies on Businesses (%)



Projected Positive Impact of AI Technologies on Businesses (%)



Personal Confidence in Integrating AI Technologies into Core Processes (%)



Outcome of Failed Projects

14.8% of businesses reported that AI technologies did not provide benefits to their organization due to unsuccessful AI project experiences. Approximately 70% of these businesses carried out their projects solely using internal resources and departments.

In-House AI Teams Are Valuable but Not Sufficient on Their Own

Establishing in-house AI teams is a highly valuable development for organizations. However, collaboration with external stakeholders who possess AI expertise should not be overlooked. AI projects often require comprehensive R&D processes. The research findings also indicate that a significant portion of failed projects were conducted solely by in-house teams.

Recommendations for Businesses

Companies specialized in artificial intelligence have already completed the necessary R&D processes for many problems and developed applicable technologies. Therefore, supporting in-house efforts with expert partners can significantly increase the chances of success.

Additionally, the fact that some businesses consider AI technologies not beneficial for their operations and simultaneously believe that these technologies may negatively impact their business processes in the future sends a strong message. This attitude largely stems not from a general distrust of technology, but from a sense of unreadiness or concern about their ability to adapt to this transformation. A significant portion of these businesses not only maintain a cautious distance from AI in general but also explicitly express a lack of personal confidence in integrating these technologies—including generative AI—into their core business processes. This reflects a concern over a loss of competence and control regarding technological transformation. The key issue for businesses is not whether AI is functional, but the extent to which they understand, direct, and feel in control of this technology. A lack of such control not only holds businesses back in the transformation process but also increases the risk of falling behind in a rapidly evolving competitive environment. This underscores that investments in AI technology alone are not sufficient; investments in human resources, training, and transformation leadership are equally critical.

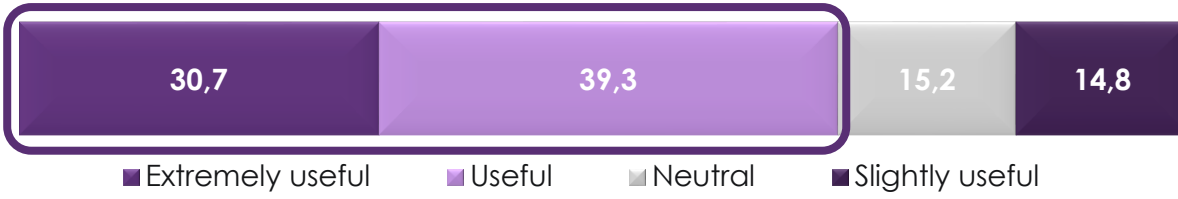


Artificial Intelligence Perception in Establishments

- What benefits do you expect AI technologies to provide for your organization?
- What benefits have AI technologies actually provided for your organization?



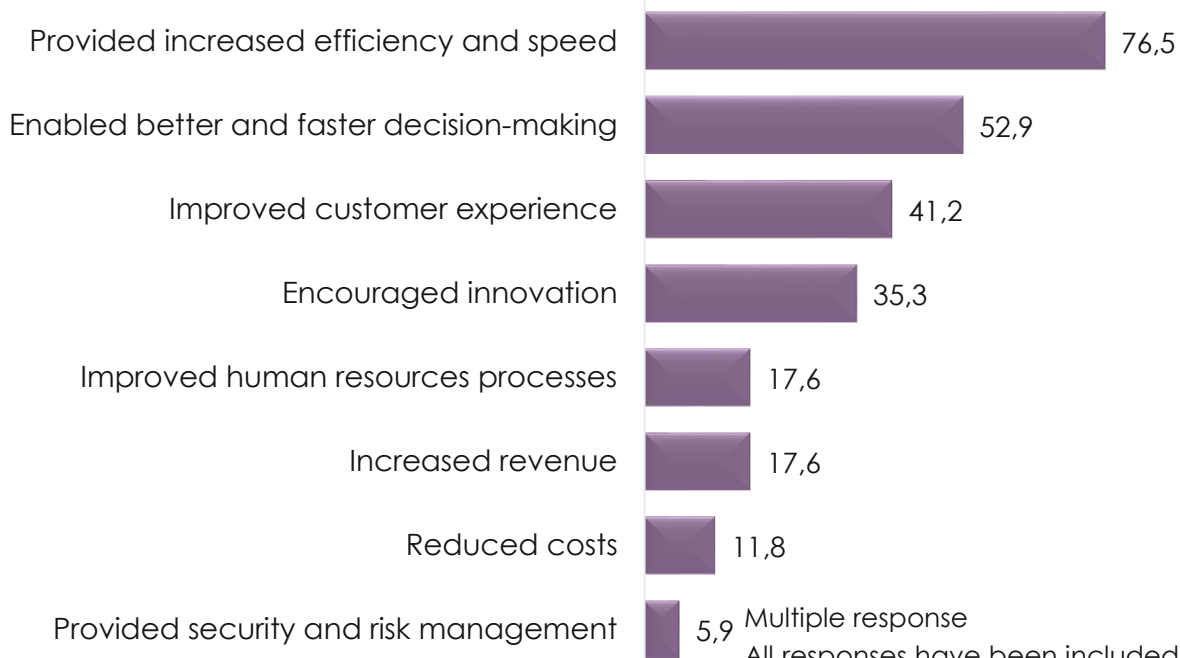
Benefits of AI Technologies on Businesses



Base (AI Users): 250



Benefits on Businesses (%)



Multiple response

All responses have been included in the chart.

Base (Respondents who find AI usage beneficial): 174

70.0% of businesses using AI technologies reported that these technologies are beneficial for their operations. The most significant positive impact of AI on businesses is the speed and efficiency it brings to decision-making processes. The ability to make decisions more quickly and in a more focused manner provides a strategic advantage, particularly in highly competitive sectors.

The ROI of AI Investments Has Started to Be Measured!

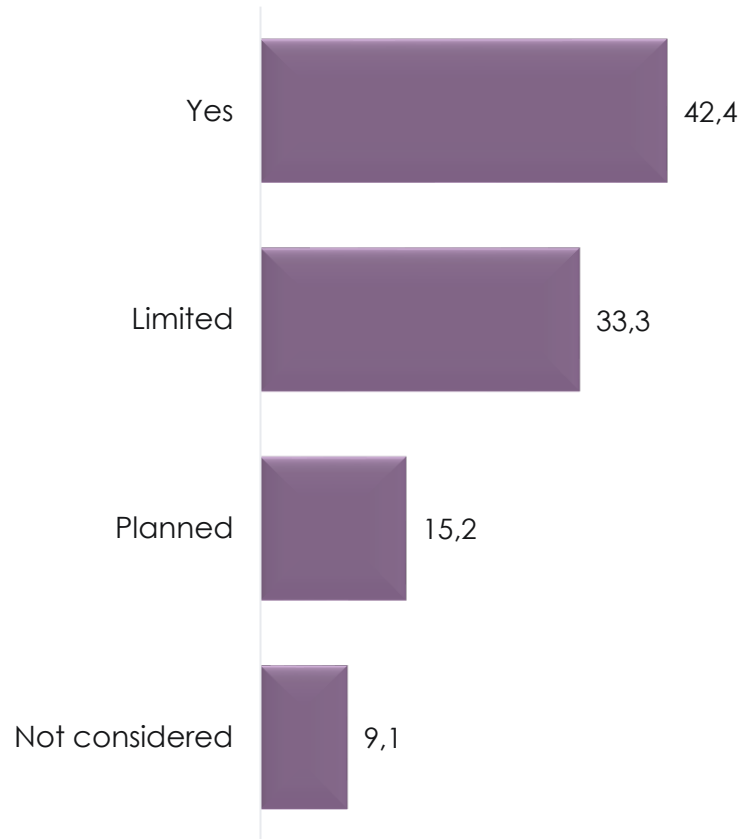
AI technologies have transitioned from being an abstract potential to delivering tangible benefits for businesses. Companies have begun measuring these benefits using concrete financial parameters. Accordingly, 17.6% of businesses using AI technologies have reported an increase in revenue, while 11.8% have observed a reduction in costs.

The fact that businesses are now quantifying the benefits of AI in financial terms indicates that the technology has shifted from being an "**experimental tool**" to a "corporate investment item." This marks AI's establishment as a strategic element in business management.

The results also reveal that businesses are beginning to see AI not only as a cost-reduction tool but also as a "**strategic lever for revenue growth.**" This demonstrates that AI's value proposition in the business world is increasingly focused on "growth and competitive advantage."



Using AI to Reduce Costs, Improve Efficiency, and Generate New Revenue (%)



Base: 35

***Number of CEO interviews in the study: 35**

So, What Do the CEOs Leading Businesses That Use AI Intensively Say?

The leaders in AI usage are primarily large-scale, enterprise-level businesses, accounting for approximately 80%. The CEOs of these companies have indicated that they view AI not only as a tool to reduce costs and increase efficiency but also as a potential source of new revenue.

According to the data, 42.4% of CEOs use AI directly to generate new revenue, while 33.3% leverage it to a limited extent for revenue growth. Additionally, 15.2% of CEOs plan to use AI for this purpose in the near future.

The positioning of AI by CEOs as not just a productivity tool but also a revenue-generating instrument signals a significant transformation. It shows that AI has evolved from being an “operational support technology” into a “strategic growth enabler.” A large portion of companies are directing AI toward direct revenue generation, highlighting innovative developments in their business models, such as new products/services, data-driven models, and personalized solutions. The 33.3% who are using AI in a limited manner are still proceeding cautiously, possibly due to risk aversion, uncertainty about ROI, or reliance on experimental pilot projects. The 15.2% planning future implementation have yet to deploy it but have already assigned AI a revenue-focused role in their strategic plans, indicating that this proportion is likely to grow in the near future.



AI Adoption Processes for Businesses That Do Not Yet Use AI



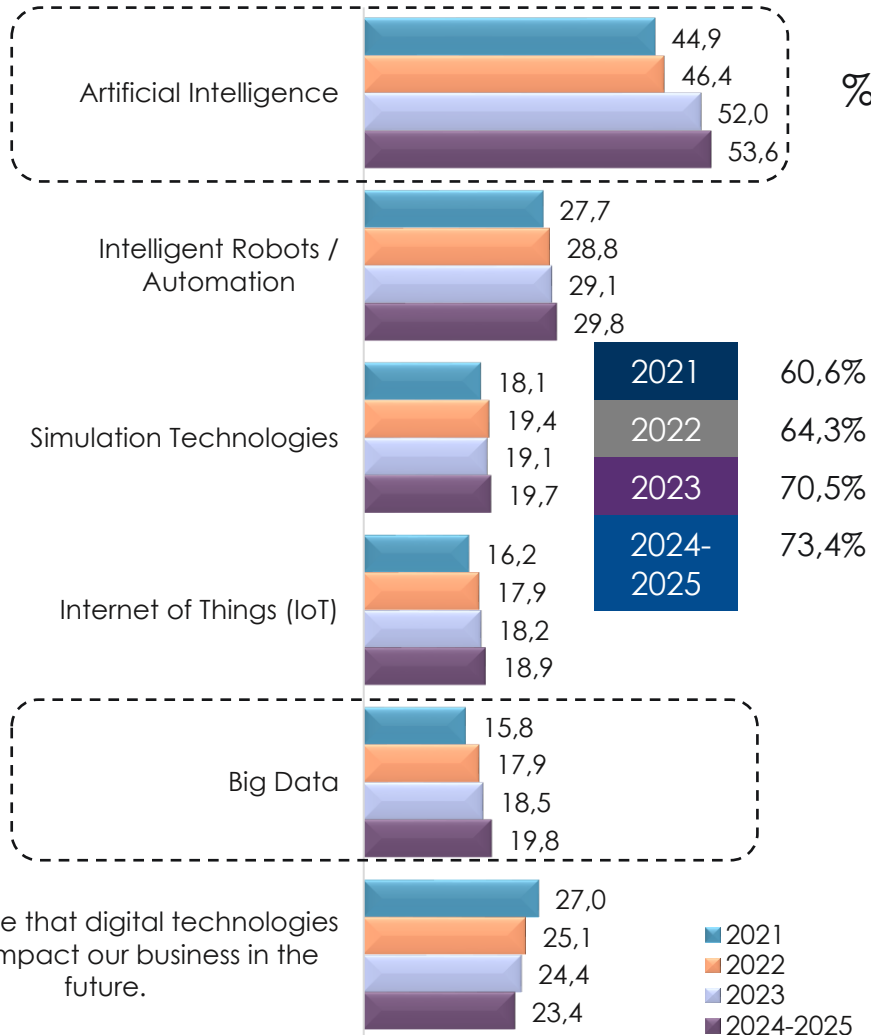
Artificial Intelligence Perception in Establishments

- Which digital technologies do you believe will impact your organization in the future?
- Do you plan to use AI technologies in 2026?

Future AI Usage

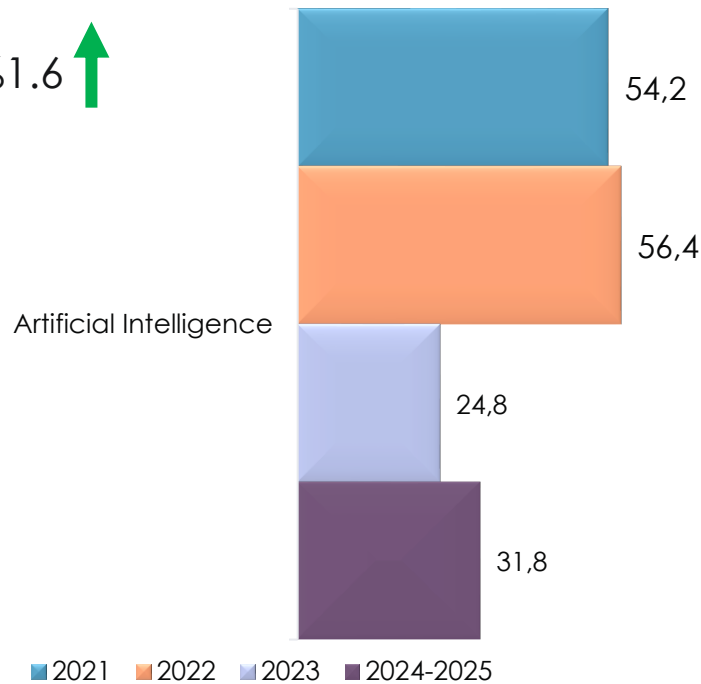


Digital Technologies Expected to Impact the Company in the Future



%1.6 ↑

Considering Using AI Technologies in the Future



Artificial Intelligence

■ 2021 ■ 2022 ■ 2023 ■ 2024-2025

Reasons for Not Considering Use

I don't understand it, and I don't really need it in my work.

It doesn't seem very reliable.

I'm not familiar with it yet. I can't use it without learning first.

I don't think it will be useful for my work.

AI Is No Longer an Option, It's a Necessity

In previous years, AI ranked as the technology that companies believed would have the greatest impact on their future. This perception was important, as it laid the foundation for behavioral adoption over time. However, in 2023, due to the economic climate, there was a noticeable decline in the intention to use AI technologies in the near future.

In 2024-2025, AI once again leads the list of technologies expected to impact businesses in the future, with 53.6% of respondents citing it. Additionally, the proportion of companies considering using AI technologies in the future has risen to 31.8%. This change is particularly significant given that economic conditions remain challenging.

Businesses now recognize that avoiding AI is no longer an option. To maintain competitive strength, integrating AI has become a necessity rather than a choice. In other words, even under continued cost pressures, companies are beginning to position AI not as a risk but as a solution.



Artificial Intelligence Perception in Establishments

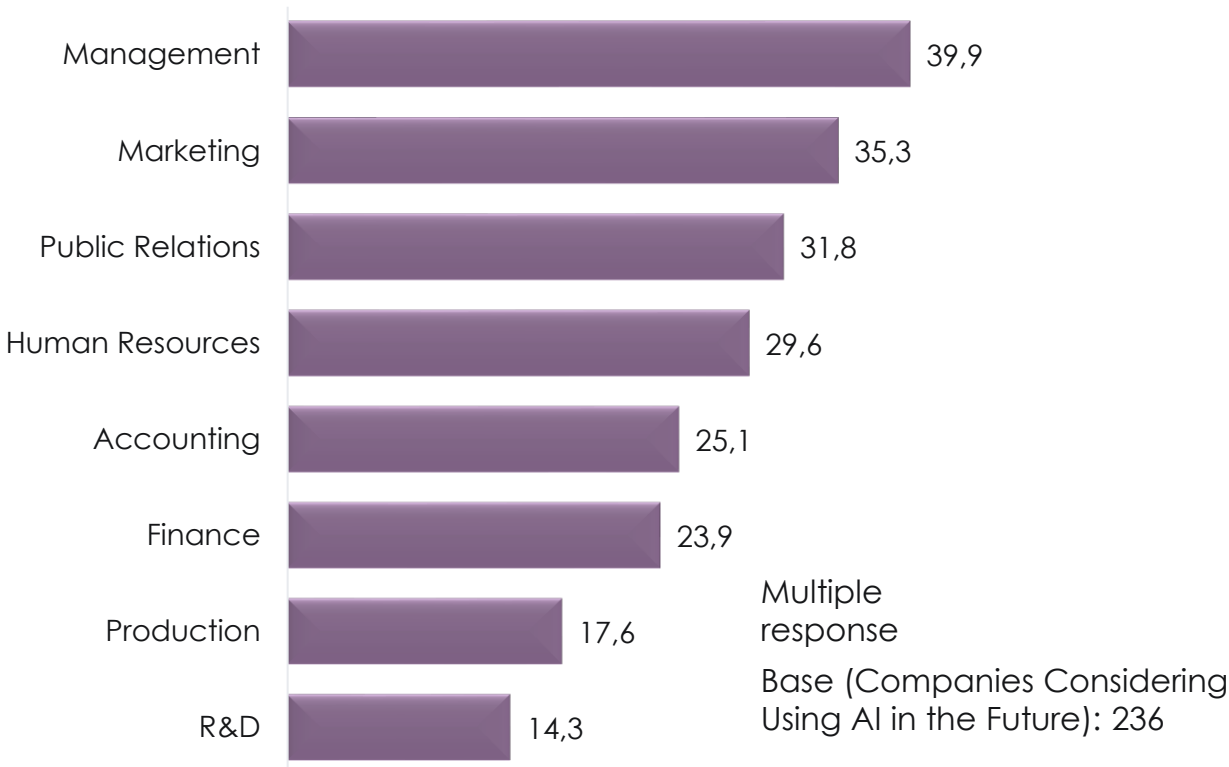
- Which departments do you primarily plan to use it in?
- How do you think it will impact employment?

Future Use of AI

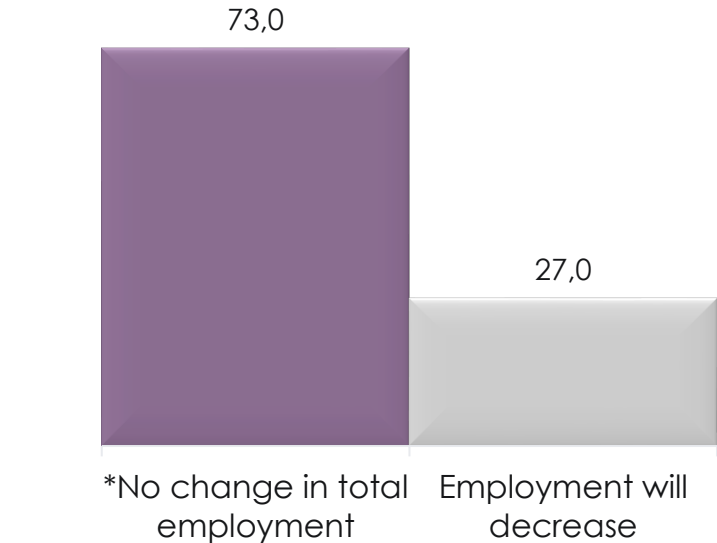


For companies considering using AI technologies in the future, the primary departments targeted for implementation are management and marketing. Notably, for businesses that are already using AI, these same departments remain the priority in their future planning. This indicates that companies have clearly defined their strategic focus and prioritization. In other words, planning to expand AI usage in areas where they are already deriving benefits can be seen as a positive approach in terms of efficient resource allocation. As a result of using these technologies, 73.0% of companies anticipate a reduction in employment due to AI, while simultaneously expecting that hiring skilled personnel capable of utilizing these technologies will offset this reduction, resulting in no overall change in total employment.

Departments Where Non-AI Users Primarily Plan to Implement AI (%)



Impact of AI Usage on Employment (%)



The majority of the 73.0% of respondents who expect employment to remain unchanged indicated that while AI adoption may lead to reductions in certain areas, hiring will increase in roles needed to implement and develop these technologies within their organizations. As a result, the overall impact on total employment is expected to be neutral.



Purpose of Artificial Intelligence Use



Artificial Intelligence Perception in Establishments

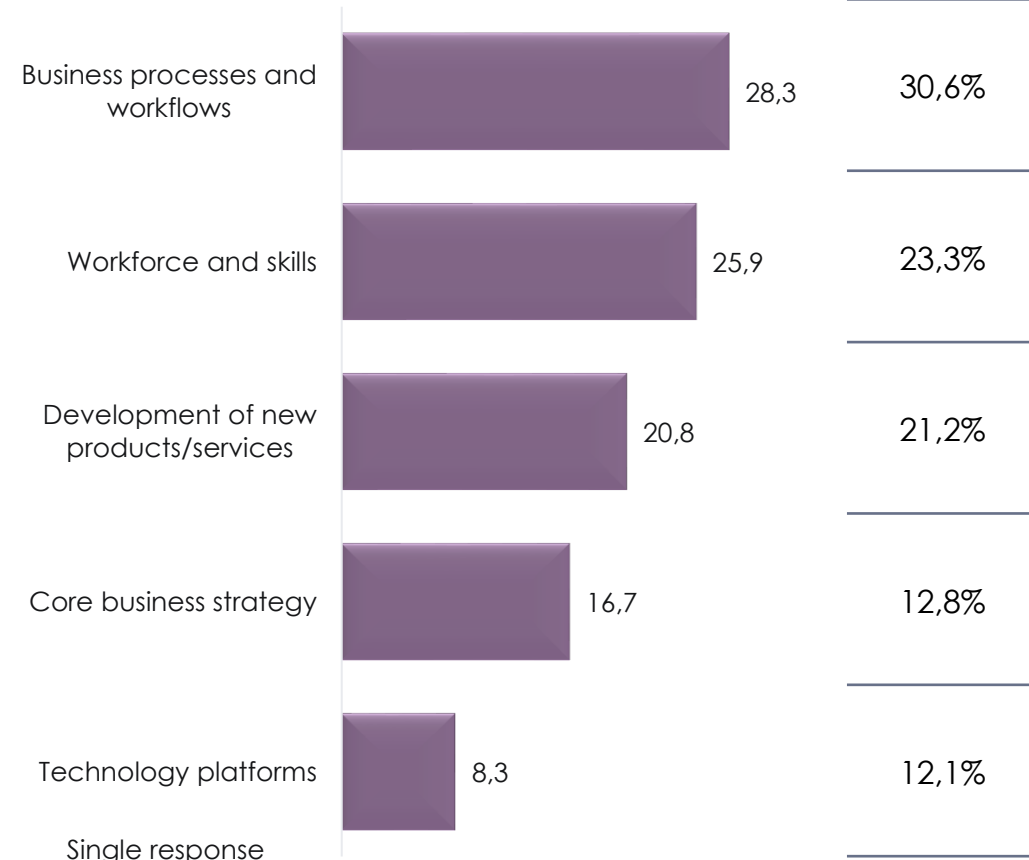
- What is your primary purpose for using AI technologies?
- To what extent do you agree that AI technologies will provide benefits in the following areas

Purpose of AI Usage



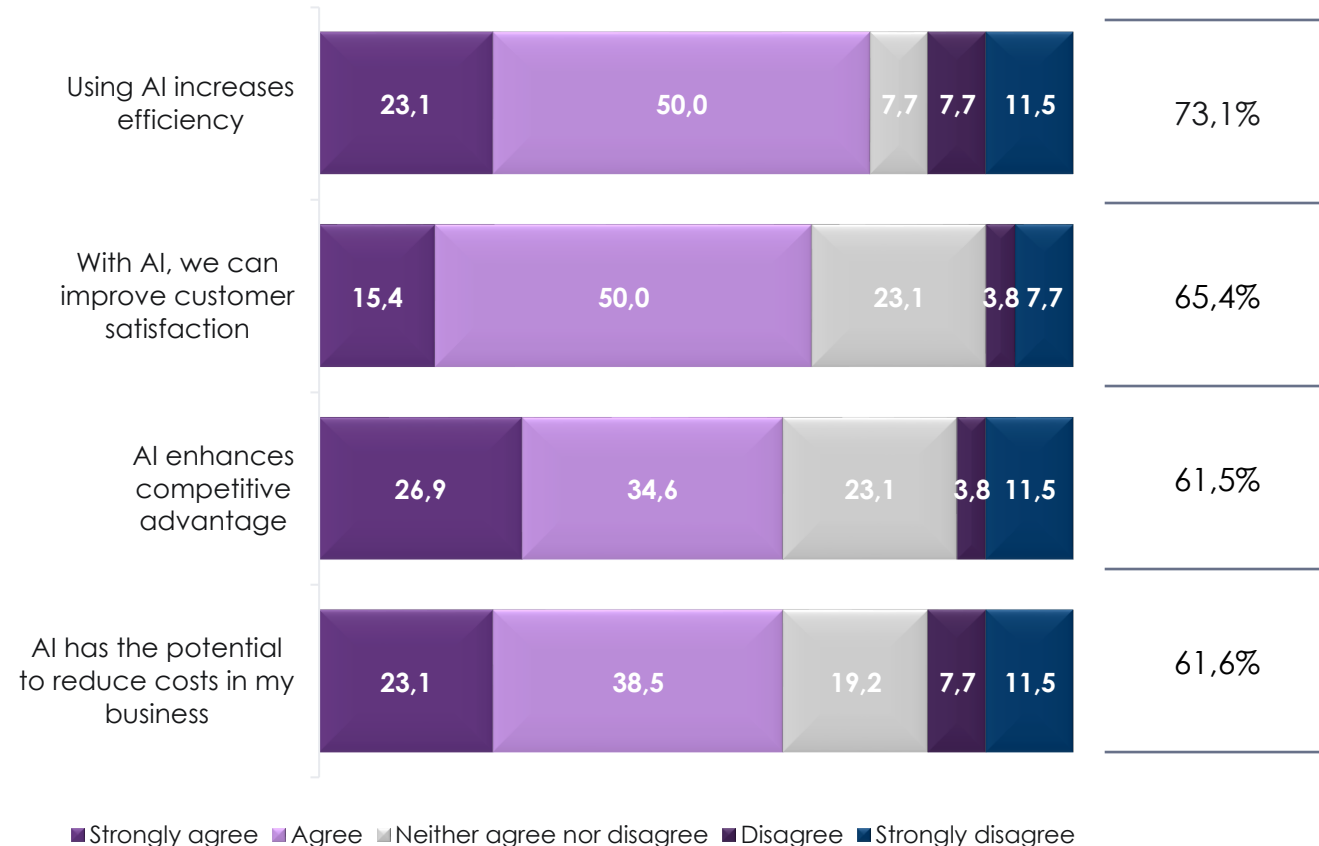
For businesses that are currently using AI technologies or plan to use them in the future, the primary goal of adopting these technologies is to achieve positive effects on business processes and workflows. Companies aim to make their daily operations more efficient, faster, and error-free through AI implementation. The secondary objective is the positive impact on workforce and skills. By using these technologies, businesses seek to enhance employee capacity, utilize human resources more effectively, transition certain tasks to AI, and develop new skills among their staff. Among the anticipated benefits, 73.1% of respondents believe that AI will most significantly improve efficiency.

Primary Purpose of Using AI Technologies (%) Benchmark



Base (Companies Using or Considering Using AI):486

Areas Believed to Benefit from AI Technologies (%) PDT



$$\text{Arf}(q) = \sum_{i=1}^n q(a_i) q(b_i) \in \mathbb{Z}_2$$

$$a_i, b_i \quad i = 1, 2, 3, \dots, n.$$

Ord. Prof. Dr. Cahit Arf
Atatürk Üniversitesi
1958-1959 Öğretim Yılı Halk Konferansları
Makine düşünebilir mi ve nasıl düşünebilir?

