AI FOR YOUNG ENTREPREURSHIPS

FIELD REPORT

<AI4YE>

<<AI for Young Entrepreneurships>>

CULTURAL DEVELOPMENT

Co-funded by the Erasmus+ Programme of the European Union

İzmir / Turkey

Current Situation Field Research
AI for Young Entrepreneurship in İzmir / Turkey

Project Overview

Project Title: AI for Young Entrepreneurship in Turkey

Program: Erasmus+

Action Type: KA210-YOU - Small-scale partnerships in youth (KA210-YOU)

Field: Youth

Project Acronym: AI4YE

Participating Country: Turkey

Target Participants: Young entrepreneurs (ages 18-30)

Research Duration: 6 months

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Field Research OF AI for Young Entrepreneurship in İzmir / Turkey

Research Objectives

- Assess the current level of AI adoption among young entrepreneurs in Turkey.
- Identify the key challenges and opportunities they face when integrating AI into their businesses.
- To identify good examples of AI in young entrepreneurship in Turkey
- To provide actionable recommendations for developing AI-oriented entrepreneurship in Turkey.

Methodology

Research Methods

A mixed-methods approach will be used to assess AI's role in youth entrepreneurship in Turkey.

- **Surveys**: Questionnaires will be distributed to young entrepreneurs to assess their AI usage, knowledge, and perceived barriers.
- **Interviews**: In-depth interviews with startup founders, business mentors, and AI experts in Turkey.
- **Focus Groups**: Group discussions with young entrepreneurs on AI challenges and opportunities in Turkey.
- **Case Studies**: Analyzing AI-driven startups founded by young entrepreneurs in İzmir/ Turkey.
- **Observational Studies**: Participation in entrepreneurship workshops showcasing AI tools and their practical use in İzmir/Turkey.

Data Collection Tools

A. **Interview Questions**:

1. How has AI influenced your business operations?
2. What are the biggest hurdles to AI adoption in your sector?
3. What kind of support would help young entrepreneurs integrate AI more effectively?

A. **Survey Questions**

1. Demographics & Background
   - Q: Age?
   - Q: Gender?
   - Q: Education Level?
   - Q: Do you have entrepreneurship experience?
   - Q: What industry are you working in?
2. AI Usage
   - Q: Do you use AI in your business?
   - Q: Which AI tools or technologies do you use?
   - Q: What kind of training or support do you need regarding AI?
   - Q: In which areas do you use AI in your business?
3. Challenges in AI Integration
   - Q: How much do you trust AI?
   - Q: Do you think AI could take your job?
   - Q: What is the biggest challenge you face in AI integration?
   - Q: Have you regularly considered the environmental implications of using AI for your entrepreneurship?
   - Q: How do you believe artificial intelligence (AI) can contribute to sustainable practices in your entrepreneurial ventures?
   - Q: Do you consider your entrepreneurship may imply ethical considerations if based on AI?
   - Q: What ethical considerations are most important when integrating artificial intelligence (AI) into your entrepreneurial ventures?
4. Opportunities and Future Expectations
   - Q: What do you think about AI entrepreneurship in your country?
   - Q: Do you think AI is an advantage or disadvantage for young entrepreneurs? Why?
   - Q: How do you think AI technologies will contribute to the growth of your business?
   - Q: How should the government/private sector support AI entrepreneurship?

- **Focus Group Topics**:

1. AI adoption trends in small businesses in İzmir/Turkey.
2. Ethical concerns in AI-driven entrepreneurship.
3. AI skills and training opportunities in İzmir/Turkey.

Data Analysis

- **Quantitative Data** (Surveys):
  - Statistical analysis of AI adoption rates among young entrepreneurs in Turkey.
  - Identifying trends, knowledge gaps, and common challenges.
- **Qualitative Data** (Interviews & Focus Groups):
  - Thematic analysis to extract insights on AI readiness, barriers, and success stories in Turkey.
  - Identification of best practices in AI entrepreneurship in Turkey.

Field Research and Activities Conducted in Türkiye

As part of the European Union-supported "Artificial Intelligence for Young Entrepreneurs" (AI4YE) Erasmus+ project, a comprehensive set of field research activities was carried out in Türkiye. These included workshops, interviews, company visits, and surveys aimed at understanding how artificial intelligence (AI) is being used in entrepreneurial ecosystems and how young entrepreneurs can benefit from it.

In this context, we introduced the project to university students and vocational high school interns, gathering valuable insights about their expectations and understanding of AI. Additionally, we held idea exchange sessions with potential young entrepreneurs, discussing the survey content used for the current situation analysis. Alongside these, both online and face-to-face meetings were conducted with association members and local partners to ensure broad engagement.

We identified and contacted companies that effectively integrate AI into their business models. The surveys we developed were distributed to such companies to collect data, encourage collaboration, and gain a clearer picture of the current landscape. These efforts helped enhance the depth and validity of our research while also inspiring youth to explore AI in their future ventures.

1. Company Visit to OKT Trailer (Aydın)

A field visit was conducted to OKT Trailer, a well-established manufacturing company based in Aydın. Founded in 1981 as a small workshop, the company has grown into a global exporter with over 250 employees. During the visit, it was observed that OKT Trailer actively incorporates AI-based systems in production and decision-making processes. AI tools are used for accessing and summarizing technical documentation, compliance protocols, and performance metrics. These tools enable faster reporting and more informed decision-making. OKT Trailer treats AI not as an auxiliary tool, but as an integral part of its strategic operations—making it an exemplary model for AI integration in traditional manufacturing sectors.

2. Company Visit to UNT Laser Cutting & UV Printing Studio (İzmir)

Another field visit was conducted to UNT Laser Cutting & UV Printing Studio, a small yet innovative enterprise located in İzmir. This business leverages AI at multiple stages—from design to sales. AI-powered tools help generate original

product designs, while on digital sales platforms, AI is used for analytics and personalized content suggestions. The products photographed during the visit were all created with AI support and are actively being marketed. This integration of AI not only saves time but also enhances the company's competitiveness in a rapidly evolving digital economy. UNT Studio exemplifies how small-scale entrepreneurs can utilize smart technologies to grow sustainably.

Current Situation Analysis

AI and Entrepreneurship Landscape in Turkey

Turkey's startup ecosystem has shown significant growth in AI adoption, particularly in sectors like e-commerce, fintech, logistics, and gaming. Startups in cities such as İstanbul, Ankara, and İzmir are increasingly integrating AI technologies for product development, automation, customer engagement, and predictive analytics. According to the **Startups Watch 2023** report, AI was among the top three sectors attracting venture capital investment in Turkey, with notable growth in generative AI applications and AI-enhanced SaaS platforms.

Despite this upward trend, there remain persistent challenges. **Regulatory uncertainties**, such as the lack of clear frameworks on data privacy, ethical AI deployment, and liability for algorithmic decisions, hinder long-term strategic planning for entrepreneurs. Furthermore, the **AI Readiness Index 2022** by Oxford Insights placed Turkey in the mid-range globally, indicating room for development particularly in government AI strategies, infrastructure, and education.

The **European Commission's 2023 Digital Economy and Society Index (DESI)** highlights that while digital public services in Turkey are progressing, AI-specific training and workforce development are still limited. A similar observation is made by **Ercan & Yıldız (2021)**, who note that university curricula in Turkey are still adapting to AI-related fields and fail to meet the fast-evolving needs of the startup sector.

Moreover, **high implementation costs** and **technical skill gaps** present major obstacles. Many young entrepreneurs express the need for accessible AI tools, hands-on training, and mentoring, particularly outside of major metropolitan areas.

Nevertheless, AI remains a **key competitive differentiator**. Early adopters among young entrepreneurs report tangible benefits such as increased productivity, enhanced customer experience, and faster go-to-market strategies. As **Kömürcü & Aydın (2023)** observe, AI adoption correlates with higher innovation capacity in startups, especially when combined with public-private cooperation and access to EU digital funding frameworks.

In summary, Turkey's AI and entrepreneurship landscape is growing but remains at a crossroads—requiring targeted investments in infrastructure, regulation, and education to fully unlock its potential.

Interview Results Analysis

In addition to surveys, semi-structured interviews were conducted with five young entrepreneurs and two AI consultants. The findings reinforced many of the themes revealed in the quantitative data but also uncovered additional insights.

Participants emphasized that AI significantly improved their operational efficiency, particularly in automating repetitive tasks and enhancing decision-making speed. However, the biggest hurdle reported was the **lack of sector-specific AI solutions** and **difficulty accessing affordable, tailored training**. Interviewees also underlined the **importance of mentorship** and practical case-based learning as a form of support, rather than only theoretical training.

Several interviewees also highlighted that while AI tools are promising, they often **require a steep learning curve** that young entrepreneurs struggle to overcome without guidance. Additionally, concerns were raised about the **limited availability of AI support systems in local languages**, which can hinder accessibility and inclusivity, especially for early-stage ventures outside metropolitan areas.

These findings suggest that capacity-building efforts must go beyond basic digital literacy and aim to create **localized, hands-on, and mentorship-driven models** for AI integration.

Survey Results Analysis

1. Demographics & Background

- **Q: Age?**

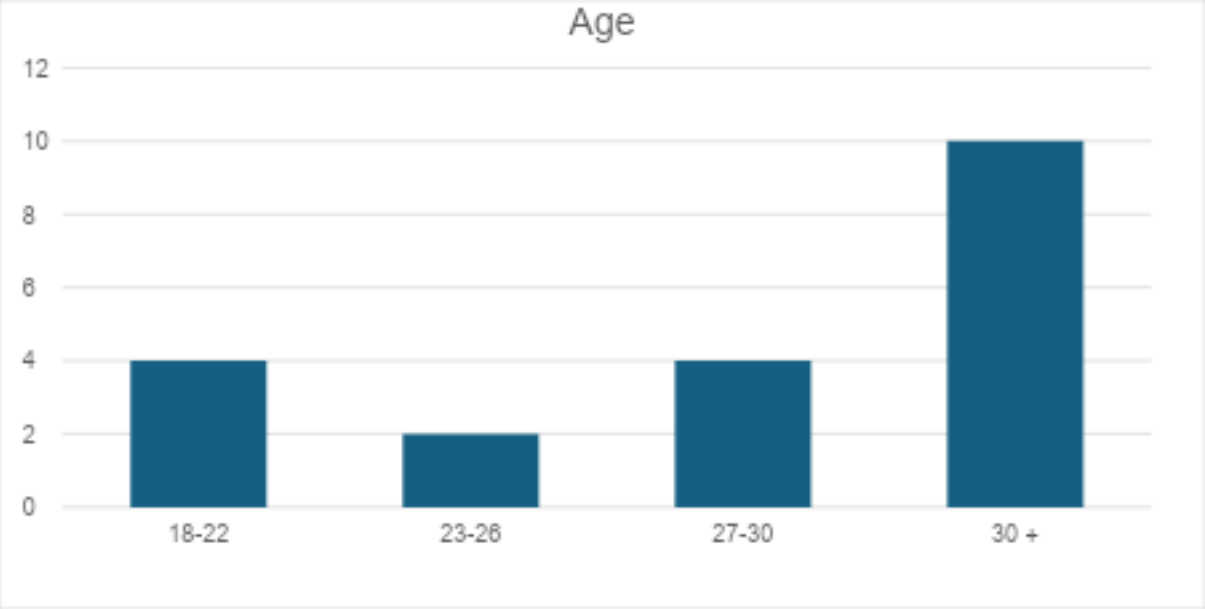

Figure 1. Age Distribution Of Survey Participants.

Among the 20 participants surveyed, 4 were between the ages of 18–22, 2 were between 23–26, 4 were between 27–30, and the majority—10 participants—were aged 30 and above.

- **Q: Gender?**

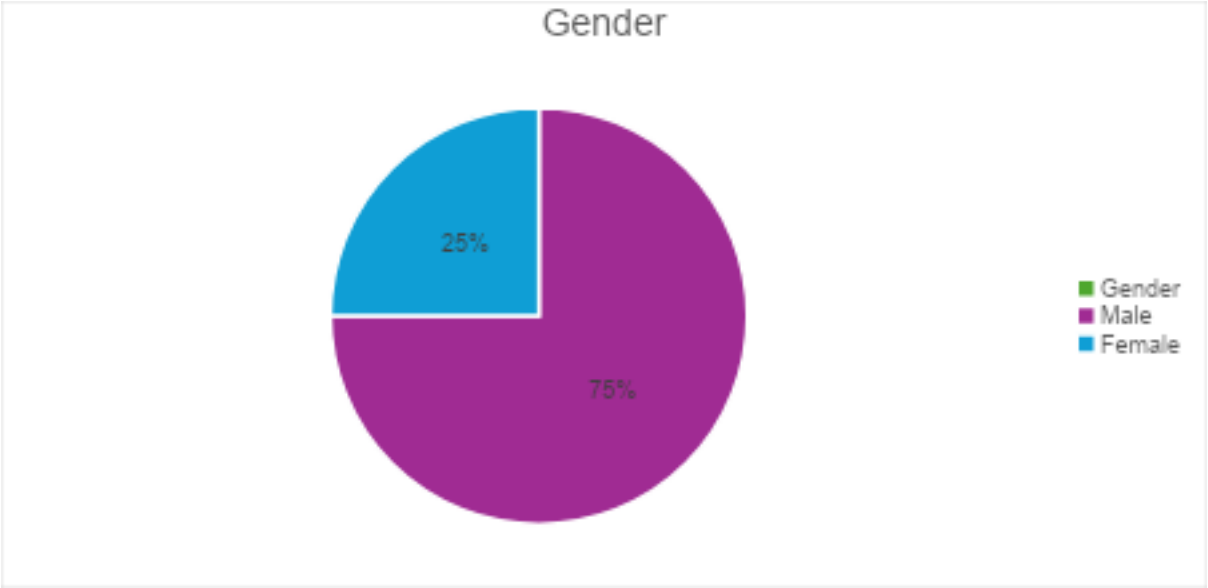

Figure 2. Gender Distribution Of Survey Participants.

Out of the 20 participants, 15 identified as male and 5 as female, indicating a significant gender imbalance among the young entrepreneurs surveyed.

- **Q: Education Level?**

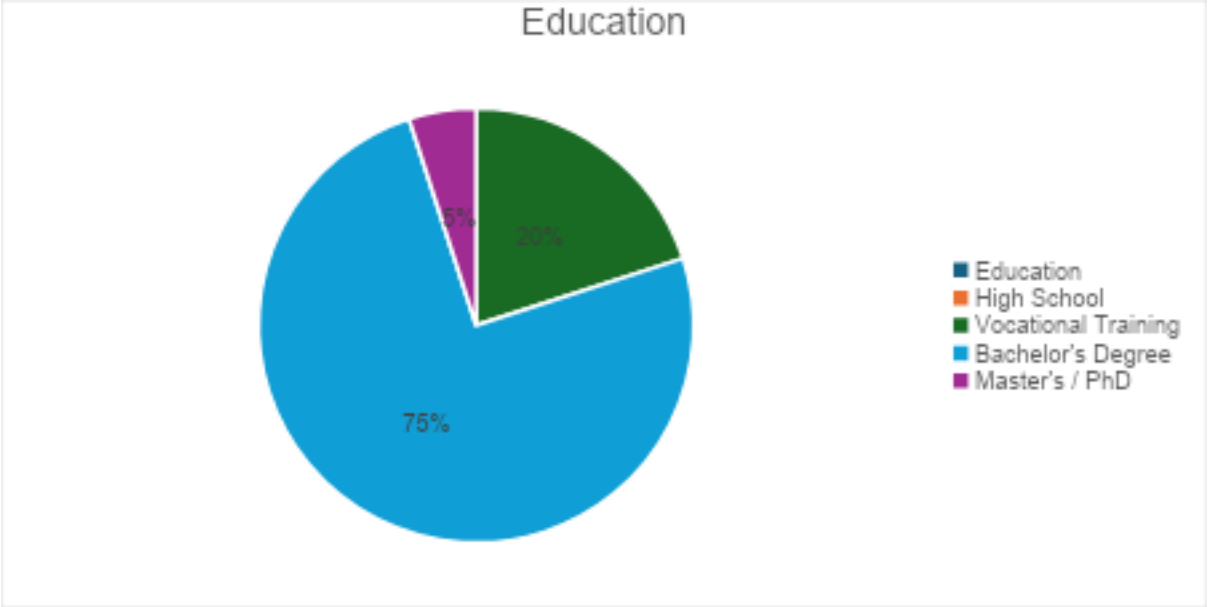

Figure 3. Education Distribution Of Survey Participants.

The majority of participants (15 out of 20) held a Bachelor's degree, followed by 4 with vocational training backgrounds, and 1 with a Master's or PhD. None of the respondents reported having only a high school education.

- **Q: Do you have entrepreneurship experience?**

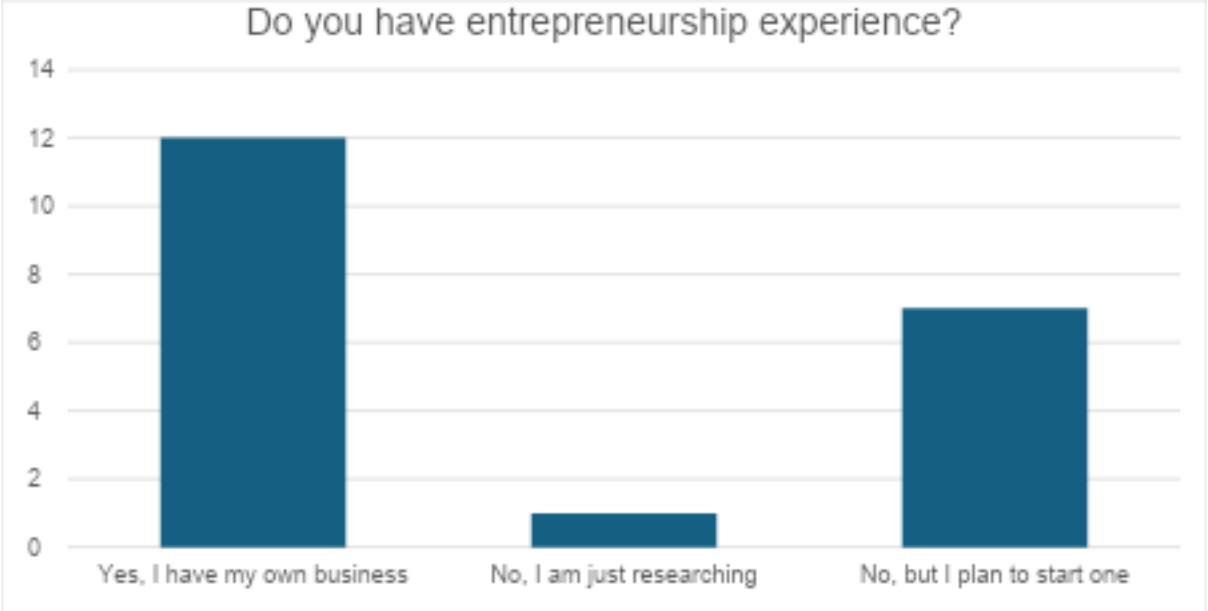

Figure 4. Experience of survey participants.
Out of 20 participants, 12 reported that they already own a business, 7 stated they plan to start one in the future, and 1 participant is currently in the research phase of entrepreneurship.

- **Q: What industry are you working in?**

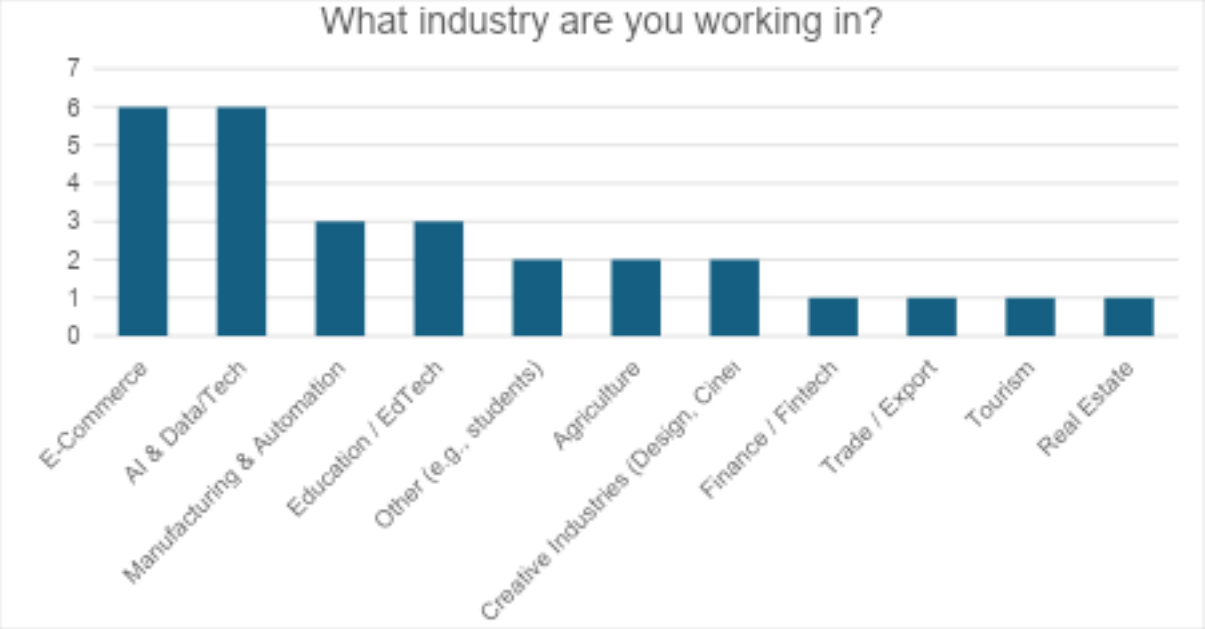

Figure 5. Participants' Fields Of Work.

The participants operate in a diverse range of sectors, with the highest representation in E-Commerce (6) and AI & Data/Tech (6), followed by Manufacturing & Automation (3) and Education/EdTech (3). Other sectors include Agriculture, Creative Industries, Finance, Trade, Tourism, and Real Estate.

2. AI Usage & Training Needs

- **Q: Do you use AI in your business?**

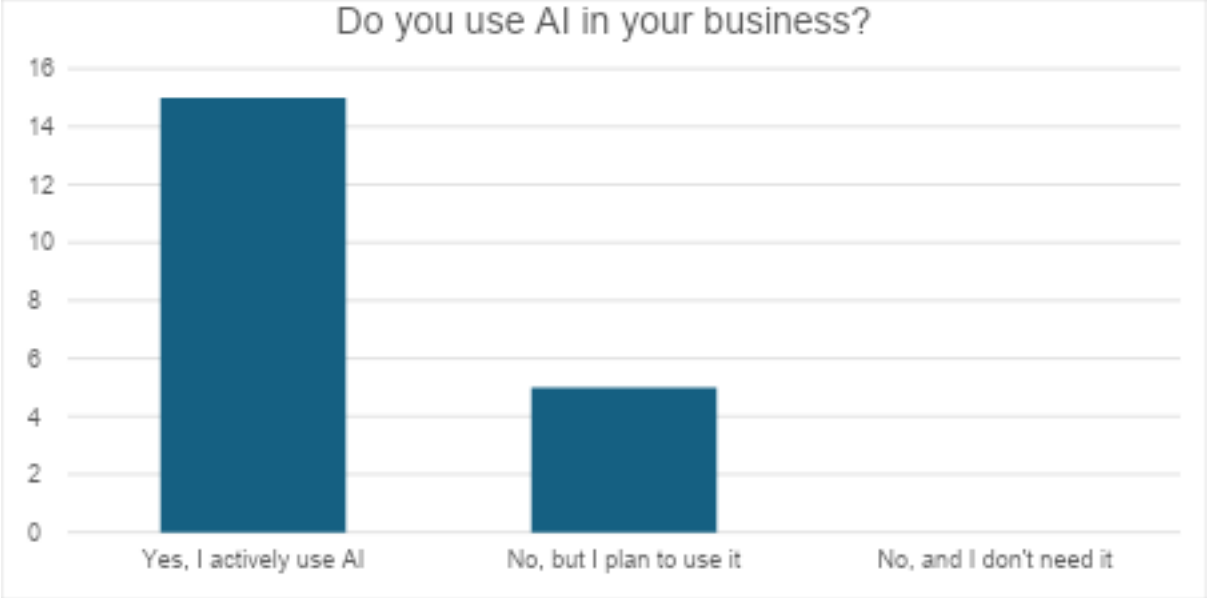

Figure 6. Active Ai Usage In Entrepreneurial Activities.

Out of 20 respondents, 15 (75%) are already actively using AI in their businesses, while 5 (25%) plan to integrate it soon. Notably, none stated that they do not need AI.

- **Q: What kind of training or support do you need regarding AI**?

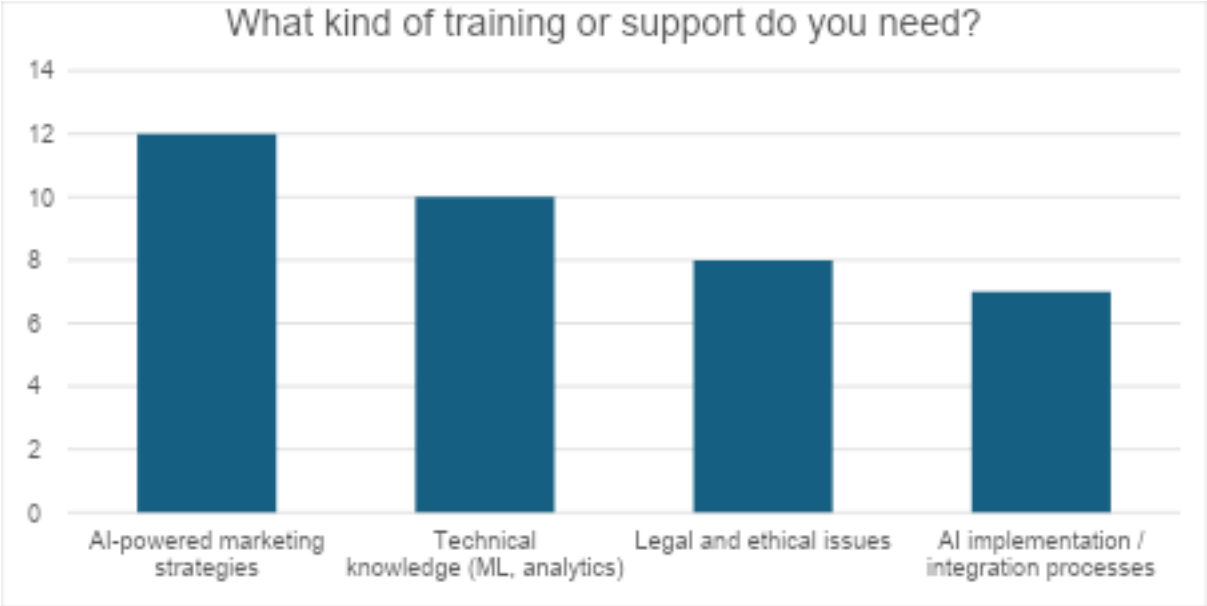

Figure 7. Training And Support Needs For Ai Usage.

AI-powered marketing strategies are the most requested training topic, with 12 out of 20 respondents (60%)identifying it as a need. Technical knowledge, including machine learning and data analytics, follows closely, needed by 10 respondents (50%). Legal and ethical issues were cited by 8 participants (40%), indicating growing concern for responsible AI usage. AI implementation and integration processes are a training need for 7 respondents (35%), suggesting demand for practical, hands-on support in deploying AI solutions.

- **Q**: **In which areas do you use AI in your business?**

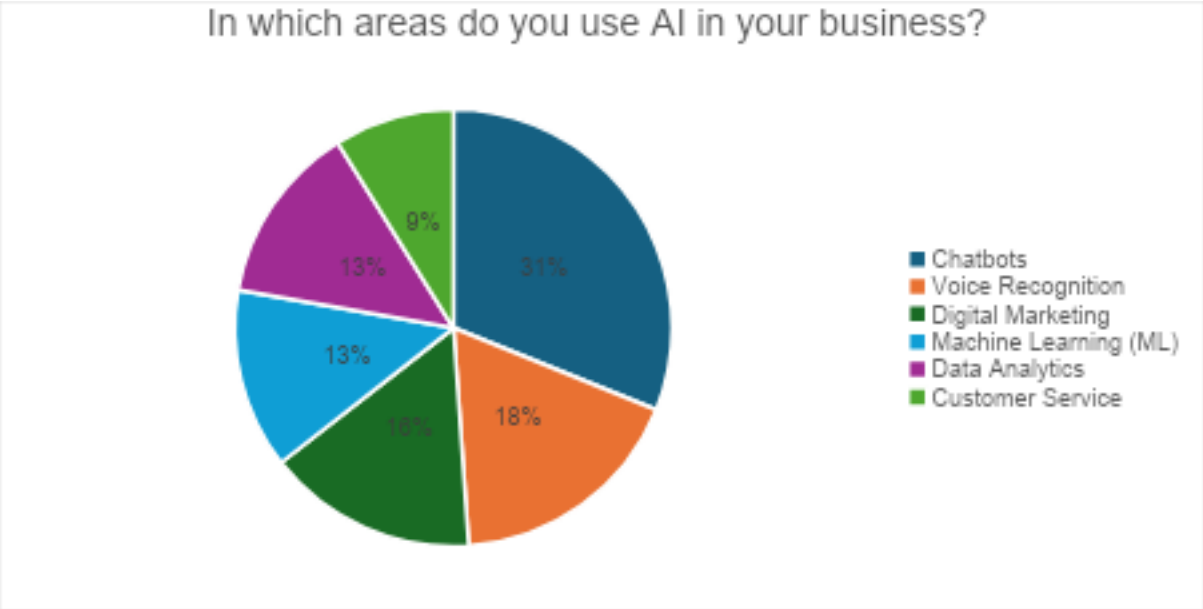

Figure 8. Ai Application Areas In Participants' Businesses.

The most commonly used AI tool among respondents is chatbots, with 14 out of 20 participants (70%) integrating them into their businesses. This is followed by voice recognition technologies (40%), digital marketing tools (35%), machine learning and data analytics (30% each), and AI-powered customer service (20%).

3. *Challenges in AI Integration*

- **Q: How much do you trust AI?**

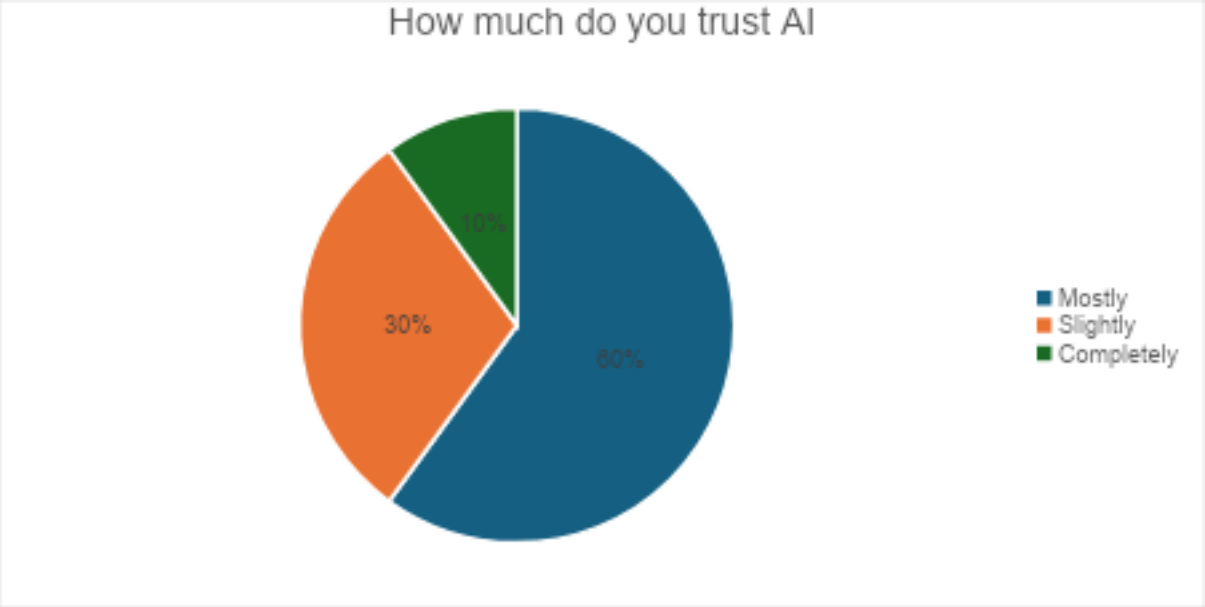

Figure 9. Trust levels in AI among participants.

The data indicates a high level of trust in AI technologies among young entrepreneurs in Turkey. A majority of the participants (60%) stated that they "mostly" trust AI, followed by 30% who reported "slightly" trusting it. Only 10% expressed complete trust in AI systems. These figures suggest a generally positive outlook toward AI, though a degree of caution or limited familiarity persists among a significant portion of respondents.

- **Q: Do you think AI could take your job?**

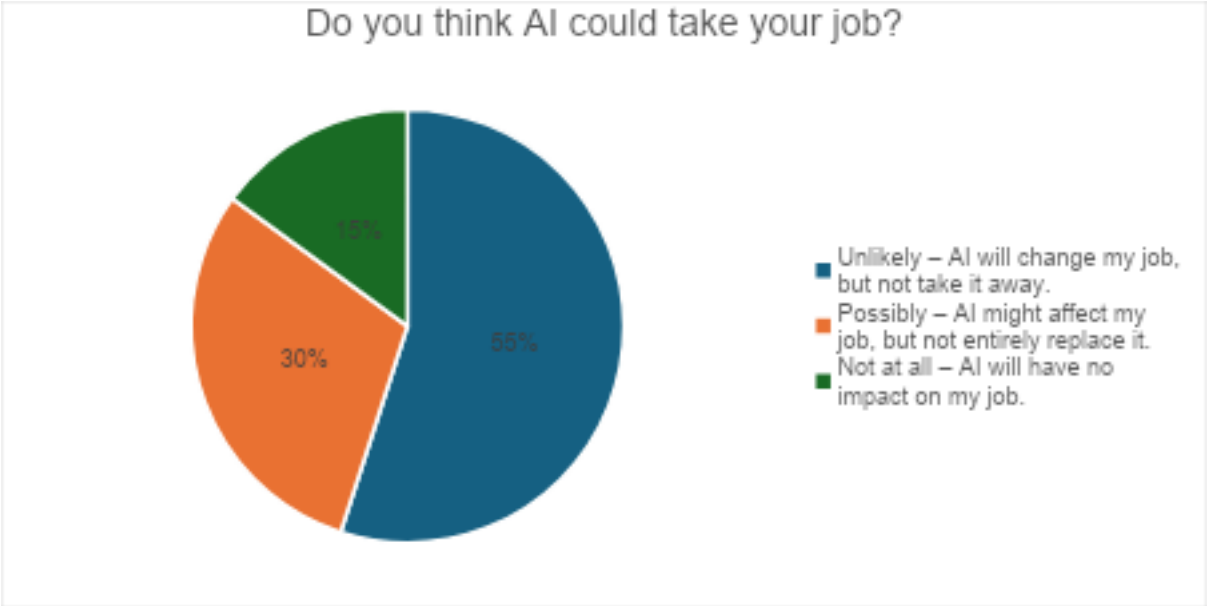

Figure 10. Whether Ai Will Take Away Their Jobs

Most young entrepreneurs (55%) believe AI will change their jobs but not replace them. 30% think it might affect their jobs, while 15% expect no impact at all.

- **Q: What is the biggest challenge you face in AI integration?**

Figure 11. Major Challenges In Ai Integration.

The biggest challenge reported by participants is high costs (65%), followed by lack of technical knowledge (50%). Other barriers include customer readiness, data quality, and lack of legal regulations, each cited by 30% of respondents.

- **Q: Have you regularly considered the environmental implications of using AI for your entrepreneurship?**

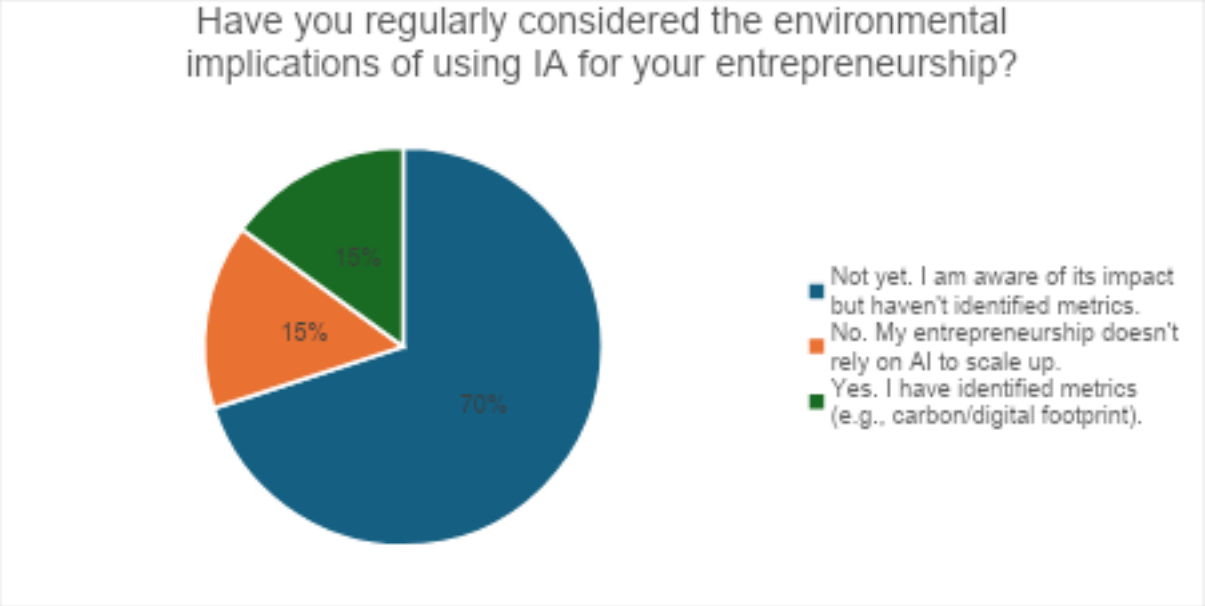

Figure 12. Environmental Implications Considered In Ai Usage.

While 14 respondents (70%) are aware of AI's environmental impact, they haven't measured it yet. Only 3 respondents (15%) have identified metrics like carbon or digital footprint, and another 3 said their businesses don't rely on AI at all.

- **Q: How do you believe artificial intelligence (AI) can contribute to sustainable practices in your entrepreneurial ventures?**

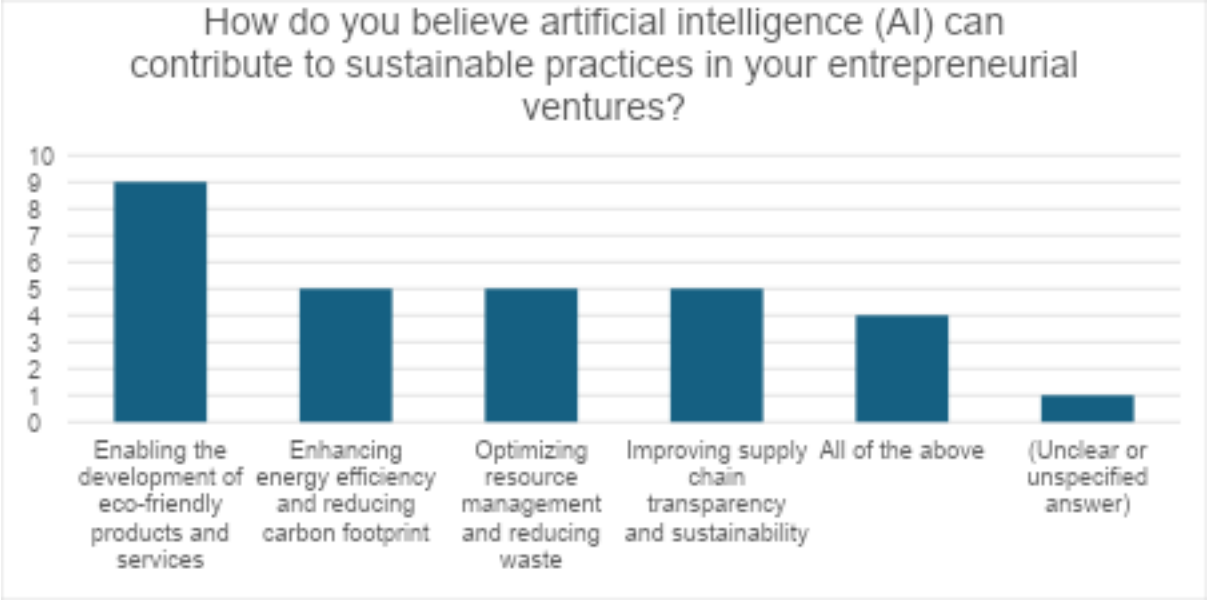

Figure 13. Contribution Of Ai To Sustainability Practices In Entrepreneurship.

Most respondents (9) believe AI helps develop eco-friendly products and services. Other key areas include energy efficiency, resource optimization, and supply chain transparency (5 responses each). Four participants selected "All of the above", showing holistic recognition of AI's sustainability impact. One response was unclear.

- **Q**: **Do you consider your entrepreneurship may imply ethical considerations if based on AI?**

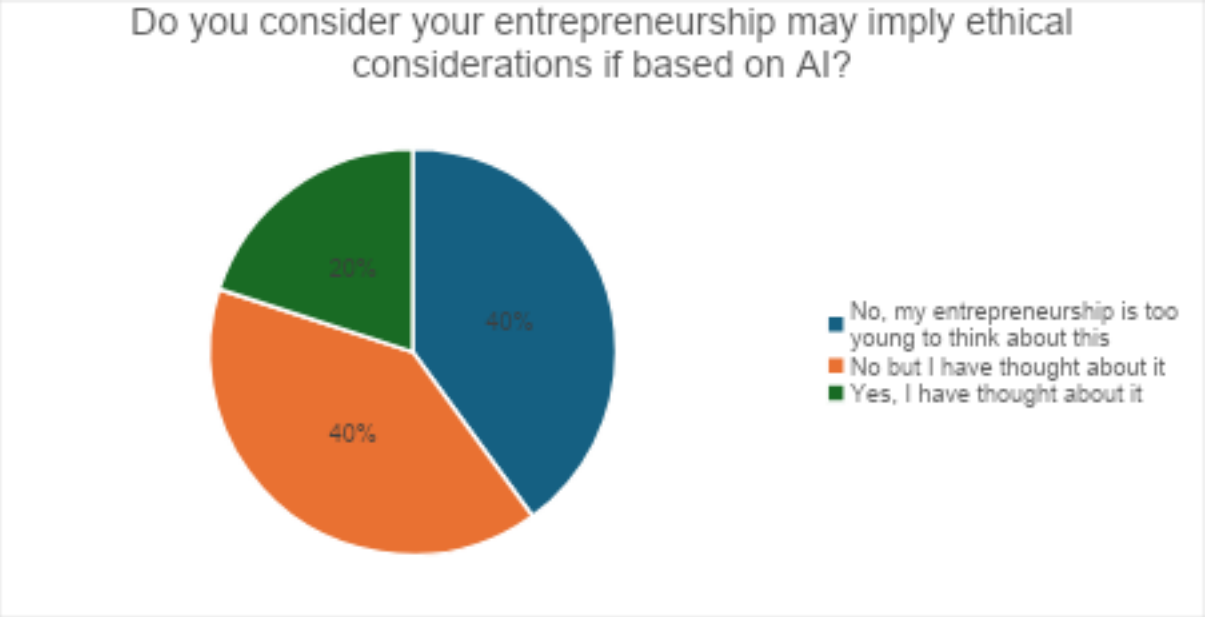

Figure 14. Awareness Of Ethical Considerations In Ai-Based Ventures.

Among respondents, only 4 had actively considered ethical implications of AI use in their ventures, while the majority either hadn't or felt it was too early to think about.

- **Q:** What ethical considerations are most important when integrating artificial intelligence (AI) into your entrepreneurial ventures?

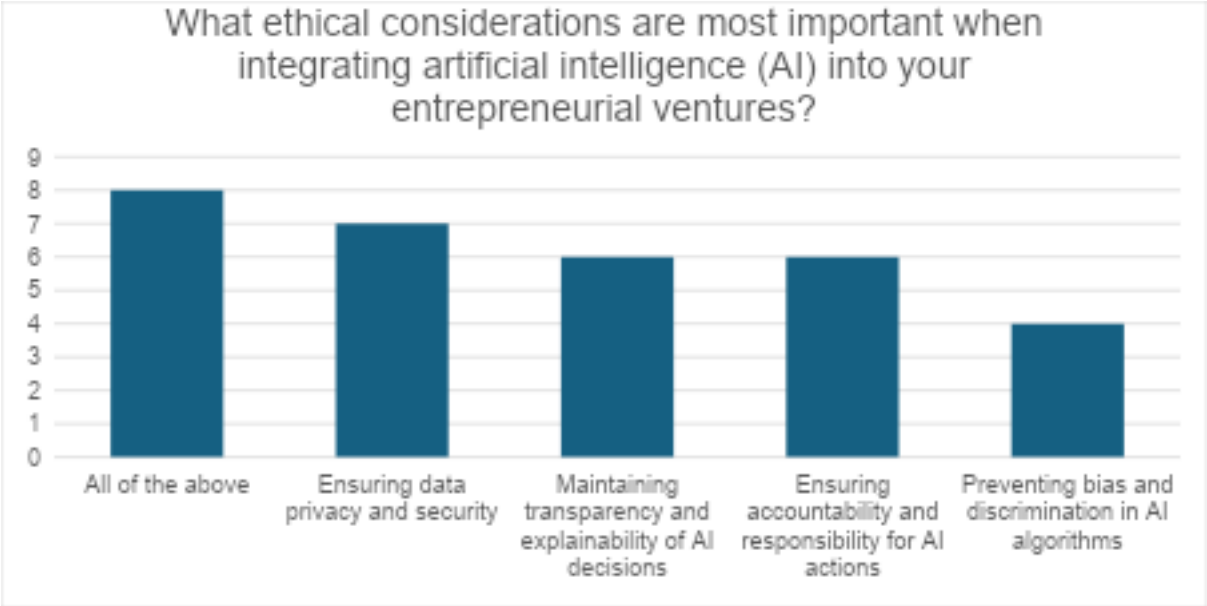

Figure 15. Ethical Priorities In Ai Integration Among Young Entrepreneurs.

When it comes to ethical priorities in AI adoption, most young entrepreneurs emphasized a comprehensive approach—selecting 'all of the above'—while individual concerns like data privacy (7) and transparency (6) also ranked high.

4. *Opportunities and Future Expectations*

- **Q:** What do you think about AI entrepreneurship in your country?

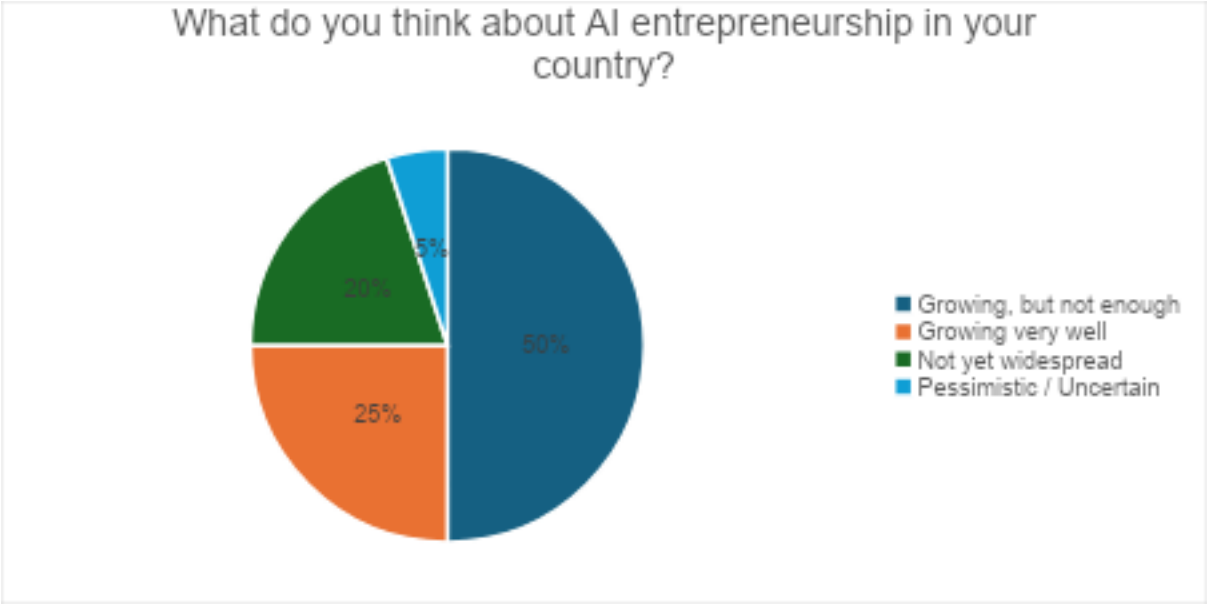

Figure 13. Perceptions On The Development Of Ai Entrepreneurship In Turkey.

While 10 out of 20 young entrepreneurs believe AI entrepreneurship in Turkey is growing but insufficient, a smaller group (5) sees strong progress, yet 4 still view it as not widespread and 1 remains uncertain or pessimistic.

- **Q: Do you think AI is an advantage or disadvantage for young entrepreneurs? Why?**
  100% of respondents stated that AI is generally an advantage for young entrepreneurs.
  Main reasons cited:
  - Time-saving & efficiency (mentioned by 7+ respondents); Decision-making & data analysis support; Enhanced marketing capabilities; Opening up new opportunities; Innovation and creativity boost
  - Noted concerns: One participant pointed out competition and improper use risks; Another noted limited language support in some AI tools.

- **Q: How do you think AI technologies will contribute to the growth of your business?**
  Operational Efficiency & Time-Saving
  - "It saves me a lot of time in my R&D processes."
  - "AI is time efficient – that is the key point for me."
  - "Most people use AI for quality of life and time saving – it benefits businesses in the same way."
  - Marketing & Customer Engagement
  - "AI can drive business growth by automating tasks, enhancing decision-making, improving customer experiences."
  - "AI agents support 24/7 operations and smarter decision-making."
  - "You'll need fewer people to promote your business. AI can do it for you."

  Productivity & Innovation
  - "It helps in product research, visual content creation, and social media improvements."
  - "AI adds value and takes over repetitive tasks, freeing time for creativity."

  Data Use & Analytics
  - "Data analytics will enhance my strategic decisions."
  - "The intelligence of AI tools helps in analyzing markets and improving services."

  Overall Insight: Every respondent emphasized that AI will be a catalyst for business growth, especially through automation, marketing, time-efficiency, and data-driven decisions.

- **Q: How should the government/private sector support AI entrepreneurship?**

  Most frequent recommendations:
  Financial Support:
  - "More support should be provided in terms of grants and equipment."

- “They must support economically.”
- “Governments should provide funding, policies, and education.”
- Infrastructure & Ecosystem:
- “The state should create an ecosystem with infrastructure and financing support.”
- “The private sector should accelerate growth through cooperation and investment.”

Education & Awareness:

- “Start at primary school – this is the future that will shape our lives.”
- “AI should be supported because it enables innovation across many sectors.”
- Legal & Ethical Framework:
- “Support with legal structuring – put AI entrepreneurship on a legal footing.”
- Minority Opinions:
- One respondent noted “No support is given yet.”
- Another was unsure: “I don’t think they should support it.”

Conclusion: There is a clear call for stronger public-private collaboration, especially in funding, training, and creating policy frameworks to help AI-based ventures thrive in Turkey.

Overall Conclusion & Analysis: AI and Young Entrepreneurship in İzmir, Türkiye

This field research, conducted with 20 young entrepreneurs in İzmir, Türkiye, offers a detailed snapshot of how artificial intelligence is being perceived, adopted, and integrated into youth entrepreneurship. The results reveal a **strong interest**in AI and a **moderate level of practical adoption**, coupled with **significant challenges** and **strong expectations for structural support**.

Advantages of AI for Young Entrepreneurs

A consistent pattern emerged across all responses: AI is widely viewed as an advantage. Entrepreneurs emphasized AI’s potential to:

- Boost efficiency and productivity
- Automate repetitive tasks
- Improve decision-making
- Support marketing, product development, and customer engagement

Notably, chatbots and AI-powered marketing tools were the most frequently used, with several respondents pointing out that **AI helps them save time**, **scale faster**, and **optimize resource usage**. However, a few also cautioned that AI increases competition and that it needs to be used wisely to avoid negative consequences like overreliance or inequality in tech access.

Contributions to Business Growth

AI’s role in growth is understood clearly:

- Most respondents said AI **helps them reduce costs**, **reach broader audiences**, and **improve operational efficiency**.

- Visual design, social media performance, and analytics were common examples of where AI was directly contributing to business results.
- Respondents also noted that AI allows small teams to **compete with larger enterprises** by automating functions they could not otherwise afford.

Government & Private Sector Support

When asked how AI entrepreneurship could be better supported:

- Many emphasized the need for **government funding**, **training programs**, and **legal/infrastructural support**.
- Some highlighted the importance of **early AI education**, starting as early as primary school.
- There were calls for **grant programs, mentorship networks, and better access to AI tools and infrastructure**.
- A few critical voices felt that no real support has yet been given in Turkey, or that support was scattered and lacked strategic vision.

Final Observations

- **AI Usage:** 75% of participants already use AI; the rest plan to.
- **Top Tools:** Chatbots, Digital Marketing, Machine Learning, and Voice Recognition.
- **Most Desired Support:** AI-powered marketing (12), technical knowledge (10), legal/ethical literacy (8).
- **Trust:** 60% trust AI "mostly," while 10% "completely."
- **Perceived Risks:** Most believe AI will **change** their job, not replace it.
- **Main Barriers:** High costs, lack of technical skills, data issues, and legal uncertainty.
- **Ethical Readiness:** 40% haven’t acted on ethical implications; only 20% have.
- **Sustainability Awareness:** Most are aware of AI’s environmental impact but lack the metrics to measure it.

General Outlook: “Growing, but not enough” remains the dominant perception.

Conclusion

Young entrepreneurs in İzmir see AI as a **powerful enabler**, yet they’re navigating a path filled with **technical, financial, and structural barriers**. While there's clear awareness of the potential, **training gaps**, **costs**, and **infrastructure limitations** must be addressed through **coordinated action** from both government

and private sector stakeholders. With the right support, Turkey's youth can become true pioneers in AI-driven entrepreneurship—transforming local innovation into global impact.

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List of Figures