

# Artificial Intelligence Market in Saudi Arabia: **Current Trends and Future Prospects**

Tanmeya Capital Insights



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TANMEYA CAPITAL



# / Introduction

Saudi Arabia, with its ambitious Vision 2030 plan, is actively embracing technological advancements. Artificial intelligence (AI) plays a pivotal role in this vision, aiming to diversify the economy and propel the nation into a future powered by intelligent solutions. This article delves into the current trends and future prospects of the Saudi Arabian AI market, providing valuable insights for experienced investors seeking lucrative opportunities.

## Market Landscape and Trends:

**The Saudi Arabian AI market is experiencing significant growth, driven by several factors:**

### Government Initiatives:

Vision 2030 prioritizes AI adoption, with a dedicated government fund of 40\$ billion aimed at fostering AI development and infrastructure. The Saudi Data and AI Authority (SDAIA) further propels this growth through strategic initiatives and regulations.

### Technological Advancements:

The growing availability of high-speed internet (5G) and advancements in cloud computing provide a robust foundation for AI implementation.

### Increased Demand:

Across various sectors – healthcare, finance, manufacturing, and retail – the demand for AI-powered solutions to improve efficiency, optimize operations, and gain valuable insights is surging.



# Data-Driven Insights:

## Market Size and Growth:

According to [invalid URL removed], the Saudi Arabian AI market size was valued at 555\$ million in 2022 and is projected to reach a staggering 3.4\$ billion by 2030, reflecting a Compound Annual Growth Rate (CAGR) of %25.6.

## Sectoral Adoption:

Healthcare, finance, and manufacturing are leading the AI adoption race in Saudi Arabia. Mordor Intelligence estimates that AI revenue contribution in Saudi Arabia will reach 135.2\$ billion by 2030, highlighting the vast potential across sectors.

## Current Trends:

### Focus on Deep Learning:

Techniques like natural language processing (NLP) and computer vision are gaining traction, enabling AI systems to analyze vast amounts of data and make intelligent decisions.

### Rise of Edge Computing:

Processing data closer to its source, facilitated by edge computing, is crucial for real-time applications and improving AI responsiveness.

### Integration with IoT:

The Internet of Things (IoT) generates massive amounts of data that AI can leverage for predictive maintenance, optimizing resource allocation, and enhancing operational efficiency.

### AI for Sustainability:

With Vision 2030's focus on sustainability, AI is finding applications in energy management, resource optimization, and climate change predictions.

## Challenges and Solutions:

Despite the promising outlook, challenges hinder the swift adoption of AI in Saudi Arabia:

**Data Privacy and Security:** Robust data privacy regulations are crucial to ensure trust and encourage data sharing for AI training.

**Skilled Workforce:** A skilled workforce with expertise in AI development, deployment, and management is critical for successful AI implementation.

**Infrastructure Development:** Building a robust AI infrastructure, including data centers and high-bandwidth connectivity, is essential to support the growth of the market.

## Solutions:

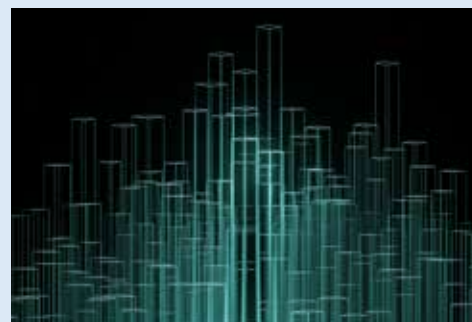
**Government initiatives:** Continued government investments in education, training programs, and research & development will foster an AI-ready workforce.

**Public-Private Partnerships:** Collaboration between government and private players can accelerate infrastructure development and knowledge transfer.

**Focus on Ethical AI:** Developing and adhering to ethical AI principles will build trust and encourage wider adoption.

## Future Prospects:

The Saudi Arabian AI market holds immense potential for investors. The increasing government support, coupled with growing demand across various sectors, indicates a thriving future for AI in the kingdom.



# / Key Investment Areas:

## AI-powered healthcare solutions:

Telemedicine, disease prediction, personalized medicine, and drug discovery are promising areas for AI investment.

## Financial technology (FinTech) applications:

Fraud detection, risk management, and automated financial services are ripe for AI integration.

## Smart city solutions:

Optimizing traffic management, resource management, and public safety present lucrative opportunities.

The Saudi Arabian AI market is poised for exponential growth, presenting exceptional investment opportunities for those with a keen eye for disruptive technologies. Understanding the current trends, future prospects, and potential challenges equips investors to make informed decisions and capitalize on this dynamic market.

## Market Landscape and Trends

The Saudi Arabian AI market is experiencing a period of explosive growth, fueled by a confluence of factors. Here's a breakdown of the key forces shaping this dynamic landscape:

### Government Support:

Vision 2030, the Kingdom's ambitious development roadmap, prioritizes AI adoption. The Saudi government has established the Saudi Data and AI Authority (SDAIA) to spearhead AI initiatives. Additionally, a dedicated government fund of 40\$ billion aims to foster AI development and infrastructure.

### Technological Advancements:

The growing availability of high-speed internet (5G) provides a robust foundation for AI implementation. Advancements in cloud computing further contribute by offering scalable and cost-effective solutions for data storage and processing.





## Increased Demand:

Across various sectors, the demand for AI-powered solutions is surging. Businesses are seeking to leverage AI for tasks such as:

### Healthcare:

Improving medical diagnosis, optimizing drug development, and personalizing patient care.

### Finance:

Enhancing fraud detection, streamlining risk management, and automating financial services.

### Manufacturing:

Predictive maintenance, process optimization, and supply chain management.

## Retail:

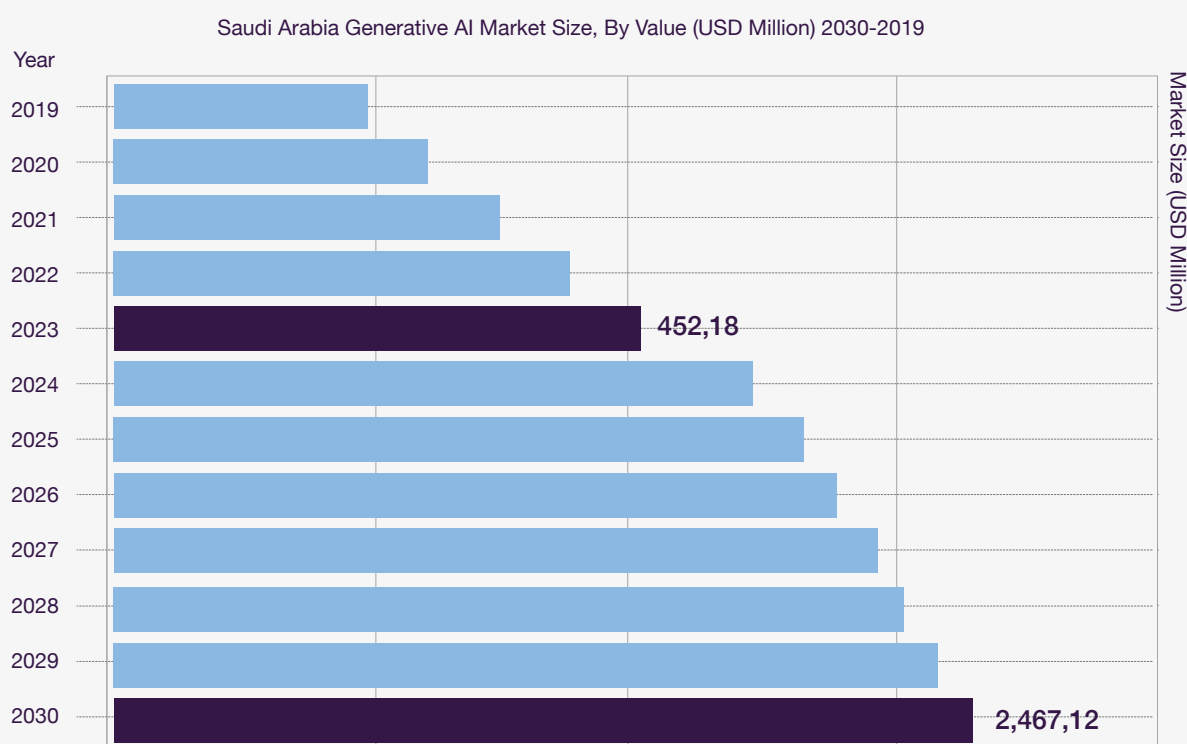
Personalized recommendations, targeted marketing, and enhanced customer experiences.

## Market Size and Growth

According to Grand View Research, the Saudi Arabian AI market size was valued at USD 3.11 billion in 2023. Looking ahead, the market is projected to reach a staggering USD 18.4 billion by 2030, reflecting a Compound Annual Growth Rate (CAGR) of %42.6. This explosive growth indicates immense potential for investors seeking lucrative opportunities in the AI space.



**Figure 1 KSA AI Market Size 2030-2019**



Source: BlueWave Consulting

Saudi Arabia Generative AI Market size was estimated at USD 452.18 million in 2023. During the forecast period between 2024 and 2030, the Saudi Arabia Generative AI Market size is projected to grow at a CAGR of %7.54 reaching a value of USD 2,467.12 million by 2030. Prominent drivers of the market include the increasing focus on technological advancement and digital transformation as part of Vision 2030. The adoption of generative AI is rapidly growing across sectors such as healthcare, finance, education, and entertainment, reflecting the Kingdom's commitment to becoming a knowledge-based economy. Government initiatives, including the creation of AI centers and the promotion

of digital inclusivity, are pivotal in driving this expansion. Despite challenges like a talent shortage and regulatory hurdles, the competitive landscape in Saudi Arabia's generative AI market is becoming more dynamic, with both established companies and emerging startups vying for prominence. This growing sector is set to revolutionize industries, drive economic growth, and elevate the quality of life across the Kingdom.

## Sectoral Adoption:

The adoption of AI is not uniform across all sectors in Saudi Arabia. Currently, three sectors are leading the charge:

### Healthcare:

With a focus on improving healthcare access and efficiency, the Kingdom is investing heavily in AI-powered diagnostics, treatment planning, and drug discovery.

### Finance:

Financial institutions are leveraging AI for fraud detection, credit risk assessment, and personalized financial services.

### Manufacturing:

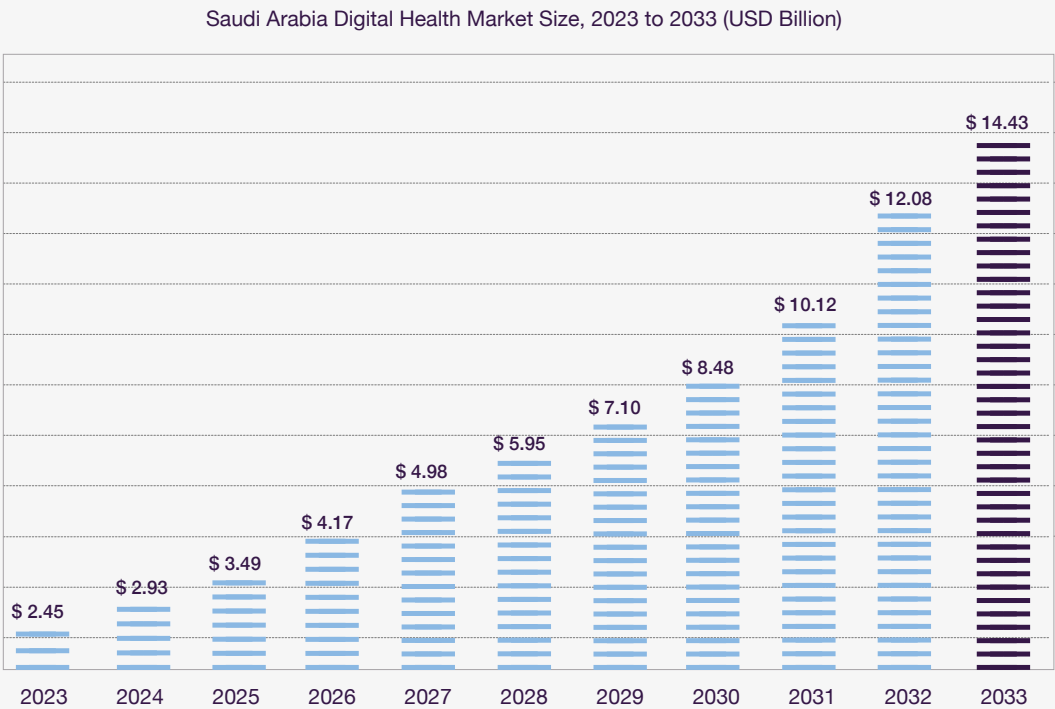
Industrial automation, predictive maintenance, and intelligent process optimization are key applications of AI in this sector.

### Smart city solutions:

Optimizing traffic management, resource management, and public safety present lucrative opportunities.



Figure 2 KSA Health Market Share



Source: [www.novaoneadvisor.com](http://www.novaoneadvisor.com)

The Saudi Arabia digital health market size was estimated at USD 2.45 billion in 2023 and is expected to surpass around USD 14.43 billion by 2033 and poised to grow at a compound annual growth rate (CAGR) of %19.4 during the forecast period 2024 to 2033.



# Evolving Trends

## Focus on Deep Learning:

Techniques such as natural language processing (NLP) and computer vision are gaining traction, enabling AI systems to analyze vast amounts of data and make intelligent decisions.

## Rise of Edge Computing:

Processing data closer to its source, facilitated by edge computing, is crucial for real-time applications and improving AI responsiveness.

## Integration with IoT

The Internet of Things (IoT) generates massive amounts of data that AI can leverage for predictive maintenance, optimizing resource allocation, and enhancing operational efficiency.

## AI for Sustainability:

With Vision 2030's focus on sustainability, AI is finding applications in energy management, resource optimization, and climate change predictions.

By understanding these market dynamics, investors can gain valuable insights into the most promising areas for AI investment in Saudi Arabia.



# / Challenges and Solutions

Despite the promising outlook, the Saudi Arabian AI market faces several hurdles that investors need to consider:

## Data Privacy and Security:

Robust data privacy regulations are crucial to ensure trust and encourage data sharing for AI training. While Saudi Arabia has established data privacy regulations, some investors may raise concerns regarding its adequacy compared to international standards.

## Skilled Workforce:

A skilled workforce with expertise in AI development, deployment, and management is critical for successful AI implementation. Currently, there is a talent gap in the Kingdom, particularly for specialized skills like machine learning engineers and data scientists.

## Infrastructure Development:

Building a robust AI infrastructure, including data centers and high-bandwidth connectivity, is essential to support the growth of the market. This requires significant investments in infrastructure upgrades.

## Evolving Regulatory Landscape:

As the AI sector evolves, regulators need to strike a balance between encouraging innovation and ensuring responsible AI development. Uncertainties in regulatory policies can hinder investment decisions.



# / Future Prospects

The future of the Saudi Arabian AI market is brimming with potential. Here's a glimpse into what lies ahead:

## Exponential Growth:

As highlighted earlier, the AI market in Saudi Arabia is poised for explosive growth. According to Grand View Research, the market is projected to reach a staggering USD 18.4 billion by 2030, reflecting a Compound Annual Growth Rate (CAGR) of %42.6. This significant growth presents exceptional investment opportunities for those with a keen eye for disruptive technologies.

## Sectoral Transformation:

AI will transform various sectors in Saudi Arabia, driving significant efficiency gains and innovation. Here are some key areas of impact:

### Healthcare:

AI-powered diagnostics, precision medicine, and robotic surgery will revolutionize healthcare delivery.

### Finance:

Enhanced fraud detection, automated financial services, and personalized financial products will reshape the financial landscape.

### Manufacturing:

Smart factories powered by AI will optimize production processes, minimize waste, and enhance product quality.

## Retail:

AI-driven sales forecasting, targeted advertising, and improved customer service experiences will personalize the retail experience.

## Evolving Landscape:

The AI landscape in Saudi Arabia will continue to evolve. Here are some anticipated advancements:

**Rise of Explainable AI (XAI):** Demand for interpretable AI models will increase to ensure transparency and build trust in AI decision-making.

**Integration with Blockchain:** The convergence of AI and blockchain will unlock new possibilities for secure data management and collaboration.

**Focus on Human-AI Collaboration:** AI will not replace human workers but rather work alongside them, augmenting their capabilities and enabling innovation.





# Key Investment Areas:

The burgeoning Saudi Arabian AI market presents a plethora of lucrative opportunities for investors. Here, we delve into some of the most promising areas to consider:

1.

## AI-powered Healthcare Solutions:

Vision 2030 prioritizes healthcare transformation, and AI is playing a pivotal role. The growing demand for efficient healthcare delivery and personalized medicine creates fertile ground for AI investment. Key areas include:

### Medical Imaging Analysis:

AI can analyze medical images, such as X-rays and MRIs, to detect abnormalities faster and with higher accuracy than traditional methods.

### Drug Discovery and Development:

AI-powered platforms can accelerate drug discovery by analyzing vast datasets of genetic information and chemical compounds.

### Personalized Medicine:

Advanced AI algorithms can analyze individual patient data to develop personalized treatment plans and predict potential health risks.



**Figure 3 AI Market in Healthcare Market**



## 2.

### Financial Technology (FinTech) Applications:

Saudi Arabia's burgeoning FinTech sector offers fertile ground for AI integration. Key investment areas include:

#### **Fraud Detection and Risk Management:**

AI algorithms can analyze financial transactions in real-time to detect fraudulent activities and assess creditworthiness more accurately.

#### **Automated Financial Services:**

AI-powered chatbots and virtual assistants can provide personalized financial advice and automate repetitive tasks, improving customer experience and efficiency.

#### **Algorithmic Trading:**

AI-driven trading platforms can analyze vast amounts of market data to generate high-frequency trading strategies and optimize investment decisions.



## 3.

### Smart City Solutions:

Vision 2030 emphasizes developing smart cities across the Kingdom. AI plays a crucial role in optimizing city management and resource allocation. Promising investment areas include:

#### **Traffic Management:**

AI-powered systems can analyze traffic patterns in real-time and optimize traffic flow, reducing congestion and travel times.

#### **Predictive Maintenance:**

AI can analyze sensor data from infrastructure components to predict potential failures and schedule maintenance proactively, minimizing downtime and costs.

#### **Resource Management:**

AI algorithms can optimize energy and water consumption, promoting sustainability and environmental responsibility.

## 4.

### Focus on Ethical AI:

When making investment decisions, consider companies demonstrating a strong commitment to ethical AI development. This includes transparency, fairness, and accountability in AI algorithms to ensure responsible deployment and foster trust.



## Conclusion

The confluence of government support, technological advancements, and surging demand positions the Saudi Arabian AI market for explosive growth. Investors with a forward-thinking approach can capitalize on this dynamic landscape by focusing on key areas with immense potential:

- AI-powered healthcare solutions are transforming the healthcare sector, improving diagnosis, drug discovery, and personalized medicine.
- FinTech applications are revolutionizing financial services, with AI enabling fraud detection, automated services, and algorithmic trading.
- Smart city solutions driven by AI are optimizing resource allocation, traffic management, and infrastructure maintenance, supporting Vision 2030's smart city initiatives.
- Remember, responsible AI development is crucial. Investors should prioritize companies committed to ethical AI principles, fostering trust and ensuring long-term sustainability.

**Disclaimer:**

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