

Aleph Technologies

Georgetown Master's in Management 2025



Scope of Work



Project Objective



Develop a **market entry strategy** for Aleph Tech in **Saudi Arabia and UAE/Qatar**, assessing **feasibility, risks, and opportunities**.



Key Focus Areas



Market Analysis → Industry trends, competitive landscape, potential investors.
Strategic Recommendations → Short-term & long-term strategies for **entry, partnerships, and scaling**.
Financial & Operational Feasibility → Cost-benefit analysis, pricing strategy, and regulatory compliance.



Deliverables



Industry Analysis Presentation (Market trends, competition, and investor insights).
Mini-Presentation (Initial findings & strategy direction)
Final Strategy Report & Presentation (Comprehensive go-to-market strategy and a execution roadmap).

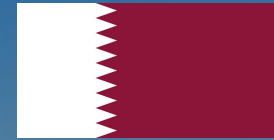


Methodology & Approach



Deep Industry Insights → Research on sector trends, regulatory landscape, and competitive positioning.
Financial & Strategic Modeling → ROI analysis, pricing frameworks, and scaling potential.
Collaboration with Aleph Tech → Regular check-ins, iterative feedback, and alignment with company goals.

**Each team is responsible for independently developing and presenting its own analysis, findings, and recommendations. All deliverables and presentations will be produced separately.*



Qatar & UAE Analysis

Nazerke Aitmukhanbetova, Daniel Santana, Jules Mitchell, Yike Zhang, Amlan Basu

GEORGETOWN
UNIVERSITY

McDonough
SCHOOL of BUSINESS



Meet our Team

Daniel Santana



Experience: Wealth Management, Real Estate
Education: BS Business & Finance
Nationality: Dominican

Amlan Basu



Experience: Santander Bank US, Risk and portfolio Management
Education: BS Mathematics and Economics
Nationality: Indian

**Nazerke
Aitmukhanbetova**



Experience: GlaxoSmithKline, Hospital Administration
Education: BHSA Health Services Administration
Nationality: Kazakh

Jules Mitchell



Experience: Capital Markets Consultant, UK
Education: LLB Law
Nationality: French & American

Yike Zhang



Experience: Consulting, Consumer Goods, Tech
Education: BA Linguistics
Nationality: Chinese

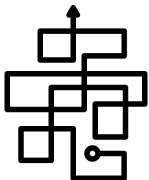


SCQ Analysis



Situation

- Enhancing processes with AI/Software becoming the norm to be competitive.
- Government initiatives (UAE AI Strategy 2031, Qatar AI Strategy) supporting industrial AI integration across major industries.
- Strategic opportunity for Aleph Tech to expand in an evolving market.



Complication

- **Industry Exposure:** New industries (Oil & Gas, Airport) with different needs.
- **Business Landscape:** Industry is highly centralized, has significant government involvement, and relies heavily on strong relationships.
- **Regulatory Environment:** Potential hesitancy to replace legacy systems/partners.



Question

- What is the most effective market entry strategy for Aleph Technologies to successfully expand into Qatar and the UAE, overcoming regulatory barriers, AI adoption challenges, and strong competition, while establishing key partnerships to drive sustainable growth in the region?



Abu Dhabi's chemical industry, encompassing oil, gas, and pharma, is the largest driver of GDP and investment in the country



The largest manufacturing sector contributing to **Abu Dhabi's Manufacturing GDP by 53% in 2021**



21.4 Million MT Production Capacity of the Abu Dhabi Chemical Sector



AED 21 Bn Value of Abu Dhabi's total investment in chemical products

Source: UAE Industrial Development Bureau



Rising energy demand and increased AI adoption in the oil & gas sector present significant growth opportunities for AI-driven operational efficiency

Market Analysis

Industry projected to grow at ~5% CAGR over the next 10 years.

70% of GCC oil & gas firms use AI for production, 65% for safety.

Growth

AI market projected to grow at ~44% CAGR from 2024 to 2030 in UAE.

Qatar has committed approximately 9 billion QAR towards AI digitization .

Potential Investors

Qatar Investment Authority (QIA)

Mubadala Investment Co and AI company: UAE

Competitive Landscape

Top 5 AI adopters:

BP, Shell, ExxonMobil, Chevron, Schlumberger



Passenger growth and rising demand for smart airport technologies in the region present high growth opportunity for AI-driven operational optimization

Qatar

UAE

MEA Smart Airport Market:

USD 485.73M in 2025, USD 894.54M by 2030, 12.99% CAGR (2025-2030)

Global Airport Information Systems Market:

USD 4.24B in 2024, USD 5.36B by 2030, 4.0% CAGR (2024-2030)

SITA

Honeywell

IBM

Amadeus

Siemens

- 1 Airport: DOH being the **3rd** busiest airport in the **region**
- 52.7M passengers served – a 15% increase over 2023
- Highest-ranked middle eastern airport for **connectivity**

- 10+ Airports: DXB being the **2nd** busiest airport in the **world**
- Dubai transitioning operations to Al Maktoum International Airport by 2032, becoming the largest airport in the world



Growing healthcare needs and the rapid adoption of AI in pharmaceuticals present significant opportunities for AI-driven drug discovery, personalized medicine, and supply chain optimization

Market Analysis

Qatar's pharma market to exceed \$1B by 2028, driven by high healthcare spending

Global pharma market to grow 165.2% by 2030, with UAE & Qatar as key players.

Growth

AI-driven R&D accelerates drug discovery and clinical trials

Pharma 2020 and Healthcare Transformation attract global investment

AI improves treatment precision and supply chain efficiency

Potential Investors

Qatar Investment Authority (QIA) – Healthcare investor

Mubadala (UAE) – Invests in pharma and biotech startups

Dubai Investment Fund (DIF) – Focuses on AI-driven pharma

Competitive Landscape

Julphar (UAE) – Largest pharma manufacturer in the region

Neopharma (UAE) – Leader in R&D and drug formulation

LIFEPharma (UAE) – Only USFDA-approved manufacturer in UAE



Comparative Landscape: AI-Driven Pharma Opportunities in UAE & Qatar

Qatar

UAE

Market Size & Growth Potential

Forecasted growth from USD 1.6B (2025) to USD 2.1B (2034), CAGR: 3.2%

Projected growth from USD 4.15B (2024) to USD 8.02B (2033), CAGR: 7.3%

Government Policy & National Prioritization

No specific national pharma prioritization mentioned

Pharma identified as national development priority in Vision 2030 (Dubai, Abu Dhabi)

Investments

\$150M investment into Latigo Biotherapeutics; Sidra Medicine MoU for AI-driven telemedicine

Emirati Genome Program enhances public trust and supports personalized AI medicine

Biotech & Digital Infrastructure

High import dependence (97%) – opportunity for AI-driven localization

Multiple biotech hubs (Dubai Science Park, KIZAD, ADGM) support local production



Strong legal frameworks encouraging local incorporation (LLC or 'branching') with possibilities for expansion via digital means

Doing business in Qatar: An Overview

- A blend of **traditional and modern practices**: 90% of Qatar's population are expats.
- A legal system built on **Common Law**, with a preference to **form an LLC**.
- **Government Authorization** is required for 100% of company ownership, subject to Qatar Foreign Investment Law, No. 1 of 2019.
 - Exception: Art.5 of FIL for matters of public interest.
- Data Protection Law, No. 13 of 2016: enabling Aleph Tech to **process the data as a mandated third party vendor**.

Doing business in UAE: An Overview

- A legal system built on **Islamic teachings**, with **Arabic** as the main language for communication.
- An option to operate as a **separate commercial entity (LLC)** or a **branch of Aleph Technologies SG**.
- A diverse country with only **11.5% of Emiratis** with Emiratisation enforceable from 2026.
- Federal Law No. 45 of 2021 on Data Protection enables for **data to be transferred between nations, if agreed with a third party vendor**.



Food security concerns and high growth targets driving the demand for AI optimization tools in the agriculture and aquaculture industries

Agriculture in Qatar

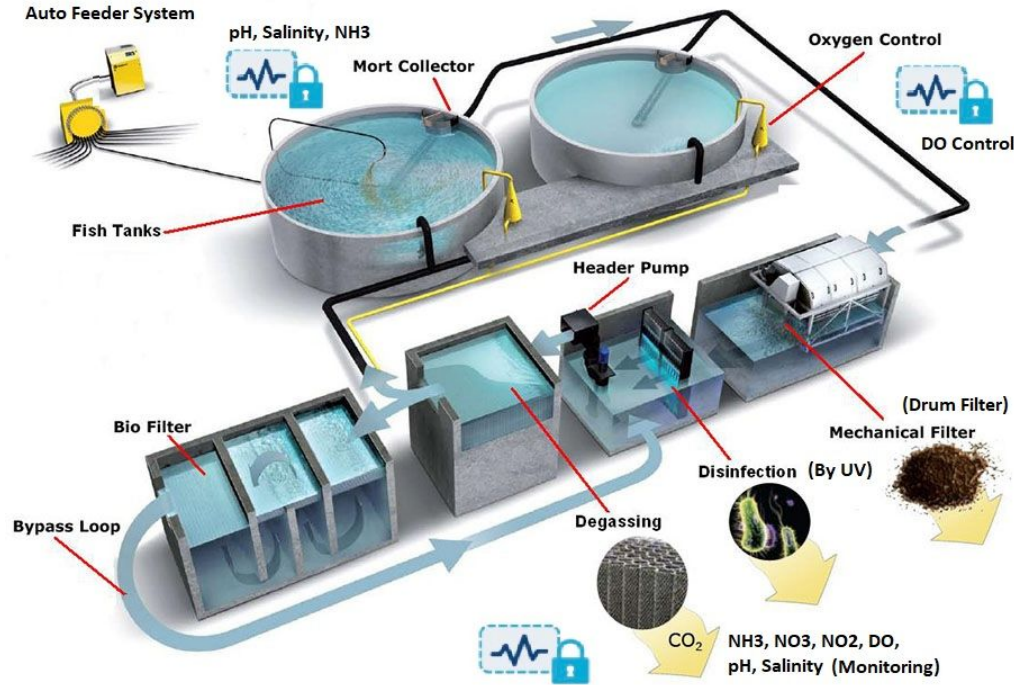
- The Agriculture Market size is estimated at USD 180.30 million in 2025, and is expected to reach 235.31 million by 2030, 5.47% CAGR between 2025 and 2030.
- Implementation of technologies like irrigation, aquaponics, and hydroponics.
- **Government Innovation Initiatives:** Qatar University's Agriculture Research Station (ARS), Ministry of Municipality 'protected farms' and climate-smart agriculture.
- High appetite for new technologies and high-investment capabilities, with dependence on the U.S. remaining too large (23% of food imports).

Aquaculture in UAE

- UAE Aquaculture Market was valued at 475 tonnes in 2024 and is expected to reach 620 tonnes by 2030, CAGR of 4.54% during the forecast period.
- Implementation of new technologies like **Recirculating Aquaculture Systems**.
- A world of opportunities (Source: UAE Ministry of Climate Change and Environment): 266,000 tons of seafood production, domestic production from natural fish stocks in the Gulf amounts to just 70,000 tons
- High need for new technologies that can **ensure disease management**, in light of an increasing demand (28.6 kg per capita).



Technology to solve food insecurity: Recirculating Aquaculture Systems



- Advantages: Fully controlled environment for the fish, low water use, efficient energy use efficient land use, optimal feeding strategy, and full disease control.
- A closed system: fish tank, mechanical filter, biological filter, pump tank, pump, and other items.
- AlephTech can leverage data from fish farms to increase output from optimized input.



National development strategies foster investment and industrial growth through diversification and sustainability initiatives

Qatar National Vision 2030



Environmental: Reduce GHG emissions by 25%, 50% of food waste, etc. Relevant across industries; potential targets for Aleph.

Economic: Expansion on current capacity (+85% LNG); achieve annual non-carbon GDP growth of 4%; develop new industries to reduce reliance on oil/gas.

Dubai Industrial Strategy 2030



Key Industries: Focus areas include **Aerospace, Maritime, Aluminum & Fabricated Metals**, Pharma & Medical Equipment, Food & Beverages, and **Machinery & Equipment**.

Economic: The strategy includes 75 initiatives and aims to add AED 160bn to Dubai's economy by 2030.

A partnership-driven, compliance-focused strategy—leveraging local networks and airport groups—will enable Aleph Tech to quickly establish market credibility in Qatar & UAE through regulatory alignment and AI-driven differentiation.

**Growing AI
Adoption**

Government initiatives (UAE AI Strategy 2031, Qatar National Vision 2030) support industrial AI integration

**Local Relationships
Are Essential**

Success in UAE & Qatar depends on strong ties with local players, particularly government entities, where **trust and relationships** drive business.

**Global Partnerships
Drive Credibility**

Leveraging current partner MNCs (Pfizer, Siemens) will enhance reputation and potentially create opportunities for pilot projects in the region.

**Localization &
Customization
Increase Adoption**

Adapting solutions to regional business needs, cultural expectations, and regulatory nuances will differentiate Aleph Technologies and accelerate market penetration.

الجامعة
الاسلامية



Team Saudi Arabia

Lilly Berry, Nomin Ganbold, Ayush Vats, Faisal Aldandashi, Valentin Plastino



GEORGETOWN
UNIVERSITY

McDonough
SCHOOL of BUSINESS



Meet Our Team

Faisal Aldandashi



Experience: PwC, Risk Management

Education: Bs Accounting & Finance

Nationality: UAE

Team Role: Financial Analyst

Lilly Berry



Experience: Healthcare Management

Education: Bs Psychology & Pre-Med

Nationality: US & Thai

Team Role: Client Relations & Cultural Insights Lead

Nomin Ganbold



Experience: Client Associate, Consulting

Education: Bs Finance & Business Analytics

Nationality: Mongolian

Team Role: Project Manager

Valentin Plastino



Experience: Real Estate Development

Education: Ba Management & Marketing

Nationality: Argentinian

Team Role: Strategy & Presentation Lead

Ayush Vats



Experience: Education Non Profit

Education: Ba Political Science and International Relations

Nationality: Indian

Team Role: Research Lead



Our Understanding of The Ask

Situation

Vision 2030 driving AI adoption in manufacturing, logistics, renewables, and industrial automation.

High demand for **process automation** and **efficiency solutions**

Strategic opportunity for Aleph Tech to enter a **high-growth, innovation-focused** market



Complication

Competitive Market: Dominated by established automation firms & global AI providers

Adoption Resistance: Hesitancy to replace legacy systems and integrate AI at scale

Localization Needs: Local partnerships, market adaptation, and industry anchor.



Question

Should Aleph Tech enter the Saudi Arabian market, and if so, what is the best approach to ensure successful entry, positioning, and adoption?



SCQ Analysis

An aerial photograph of a coastal city, likely in Saudi Arabia, featuring a large harbor with many small boats, a sailboat in the foreground, and mountains in the background. The image is overlaid with a semi-transparent blue rectangle containing the title text.

Saudi Arabia Current and Future Market Analysis

GEORGETOWN
UNIVERSITY

McDonough
SCHOOL *of* BUSINESS



Pharmaceutical Industry



Estimated revenue:

USD 5.56 billion by 2024



Projected CAGR:

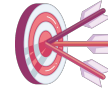
6.08% (2024-2028)



Anticipated market volume:

USD 7.04 billion by 2028

Alignment with Vision 2030



Shift pharmaceutical importing to **domestic manufacturing** (from 20% to 40%)

USD 65 billion in investments to build the nation's healthcare infrastructure

Pharma AI adoption is growing rapidly as companies seek to improve efficiency, compliance, and production quality

Potential Investors



Local Manufacturers:

SPIMACO

Tabuk Pharmaceuticals

International Companies:

Pfizer: (introducing 5 new products by 2025)

Glaxo Saudi Arabia: (80% of medications are produced in Jeddah, company boosted stake to 75%)



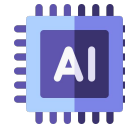
Oil & Gas Industry

1. Market Size



17% of global reserves; **~50%** of Saudi GDP. Vision 2030 drives digitalization

3. AI Adoption



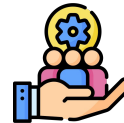
65% Saudi firms are adopting AI for predictive maintenance and operational efficiency.

2. AI market in Saudi Arabia



Expected grow at **~33%** CAGR from 2024 to 2030, boosting energy

4. Capitalization



Optimization: Implement automation to enhance efficiency
Market entry: Saudi Aramco, align with IKTVA policies
Sustainability & Compliance: efficiency tools to support Vision 2030 goals



Chemical Industry

Current Market



Saudi's **2nd** largest export

Current Market:

Annual revenue of **\$912B USD**
1.9% of the global chemical market

\$600B to be invested under Vision 2030

2.3% Predicted CAGR between 2025-2029

Leaders of the Saudi Chemical Market

Saudi Kayan

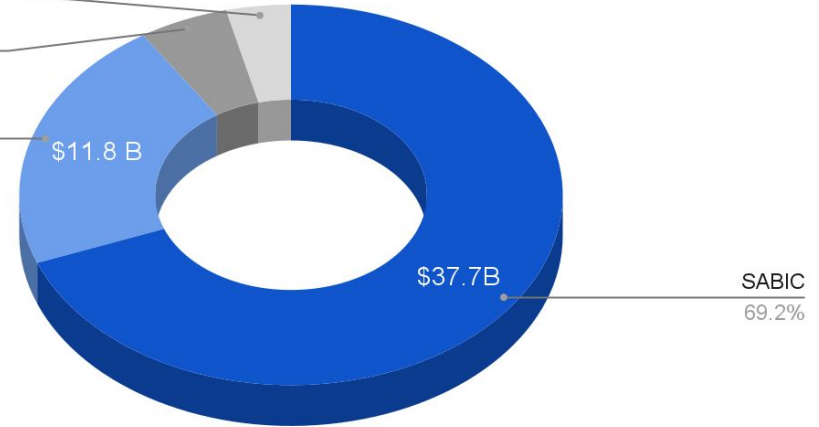
3.9%

SABIC Agri Nutrients

5.3%

Petro Rabigh

21.7%



Source: [dun&bradstreet](https://www.dunandbradstreet.com)



Transport in Saudi Arabia

Now & The Future



29 airports, **13** international, **9** major commercial ports and **3** industrial ports

100 Billion to be invested under Vision 2030

Invest **5 billion** into smart airport initiative

Renewable energy integration and AI-driven airport management.

Vision 2030 & Airports



Current Plans:

- Plans to build the **biggest** Airport in the World. (57 kms in area)
- Increased focus on **AI** and **automation** in airports
- **Smart AI-driven** supply chain and **inventory management** for airport construction and operations.

Sea Ports



Current Plans:

- The **Saudi Ports Authority** (Mawani) has launched the **Smart Ports Initiative** to digitize and automate port operations.
- Saudi Arabia plans to invest **\$30 billion** in its ports by **2030** with the goal of becoming a global logistic hub.



Emerging Opportunities In Saudi

Renewable Energy & Sustainability



Current / Future Market:

Financed **\$200B** renewables, **50%** clean energy target by 2030.

Fit in the Market:

AI-driven energy efficiency

300% Increase in installed renewables capacity since 2021

Advanced / Smart Manufacturing



Current / Future Market:

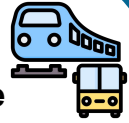
Invested **\$500B** NEOM hub, AI, automation emphasis.

Fit in the Market:

Process optimization, predictive analytics

60% Increase in industrial facilities as of 2016 - 2023

Logistics & Smart Infrastructure



Current / Future Market:

Backed by **\$100B+** logistics, AI-driven infrastructure

Fit in the Market:

Supply chain optimization, predictive maintenance

80+ Companies relocated regional HQs to Saudi Arabia, targeting 480 by 2030.



Summary - Saudi Market



Strategic Fit with Vision 2030

- Saudi Arabia's Vision 2030 presents a high-growth market that aligns with Aleph Tech's core capabilities, offering strong demand for AI-driven process optimization in industrial sectors.



Strong Positioning in Key Industries

- Aleph Tech is well-positioned to address the pharmaceutical, chemical, and oil & gas industries, leveraging its AI Co-Pilot to drive efficiency, automation, and cost optimization. Leveraging anchor names.



Regulatory & Legal Considerations

- Future work will focus on legal frameworks and compliance requirements for Aleph Tech's expansion into Saudi Arabia as a Singapore-based company.

Appendix