

# AI POWERED MEDICAL IMAGING

## INVESTMENT OPPORTUNITY SCORECARD

### ICT

June 2021

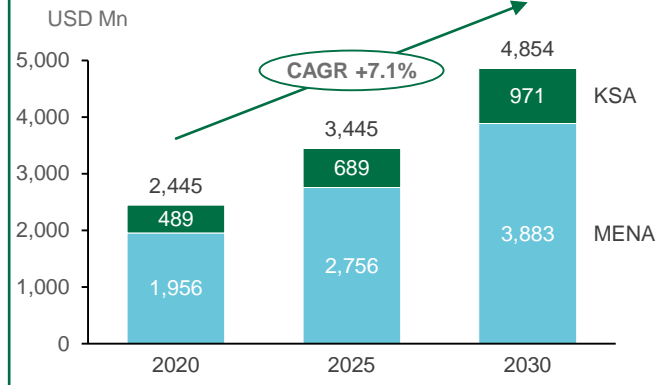


# AI POWERED MEDICAL IMAGING

**OPPORTUNITY'S DESCRIPTION:** Attract leading AI (Artificial Intelligence) based medical imaging service providers to KSA to cater local and regional demand

## DEMAND

### MARKET SIZE, USD MN



### INVESTMENT HIGHLIGHTS

- Expected investment size of USD 290 Mn
- Investment IRR: 12%
- Payback period: 9.2 years
- Opportunity to consider different operating models – FDI with 100% ownership or joint venture with local private sector player(s)

## INVESTMENT OVERVIEW

### VALUE PROPOSITION

- Leverage recent FDI measures such as 100% foreign direct ownership to motivate private sector participation in KSA healthcare sector
- Healthcare is one of the vital sectors in the Saudi Vision 2030 and the National Transformation Program, with one of the strategic objectives of the government being improving the quality and efficiency of the healthcare services
- In KSA's 2020 budget, Health and Social development sector was allocated ~USD 45 Bn holding the third largest share in the budget expenditure
- Currently KSA is facing a shortage of radiologists (0.4-0.7 per 100,000) which is below the global average, leading to an increased need to leverage AI powered medical imaging readings

### KEY DEMAND DRIVERS

- Image based diagnostics for diabetes and associated medical conditions are particularly relevant to KSA, where 18.3% of the adult population is estimated to have type 1 diabetes and related conditions
- Increasing need for chronic healthcare in KSA leads to high number of diagnostic tests (on an average ~70 – 80 million diagnostic tests being conducted annually) which drives the growth of the diagnostic imaging market in the country
- Rising geriatric population and potential rise in oncology cases necessitates faster and higher accuracy in diagnosis which is precisely offered by AI based medical imaging services

## MARKET OVERVIEW

### MARKET READINESS AND COMPETITOR ANALYSIS

- Although in nascent stage of development, there are select global/local players providing limited services in the Kingdom

### GLOBAL TRENDS

- Global artificial intelligence powered medical imaging was valued at ~USD 288 Mn in 2019 and projected to grow at CAGR of 32.3% to reach USD 2.7 Tn by 2027
- In the coming years, medical imaging professionals are anticipated to have a rapidly expanding AI-enabled diagnostic toolkit, to support all aspects of image interpretation from classification, detection, and segmentation through the extraction of quantitative imaging features and biomarkers

### COMPETITOR ANALYSIS





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## SUPPLY

### SCALABILITY AND LOCALIZATION

Grade: Low Medium High

- KSA has competitive edge in providing healthcare services over regional peers: ~15% lower costs for specialized staff, ~10% lower costs for rentals and purchase of land and ~15% lower CAPEX for healthcare equipment
- Ability to serve large unmet local demand and further expand geographical footprint by leveraging KSA's geographical advantage and trade agreements with neighboring countries creating favorable export ecosystem
- AI is a key priority for KSA, supervised by the Saudi Data and AI Authority established in 2019 and the government is continuously making investments to ensure strong technology infrastructure as AI has been identified as a key growth factor in multiple sectors especially healthcare and manufacturing.
- Multiple universities (including Misk schools) have introduced AI centered curriculum

### ECOSYSTEM ANALYSIS

Provider / Potential partners



Healthcare sector beneficiaries



- Private and government hospitals
- Private clinics
- Other medical institutions

End-users



- Healthcare practitioners (including doctors, physicians)

### KEY STAKEHOLDERS



Sources for Cost of Doing Business: EIU, World Bank

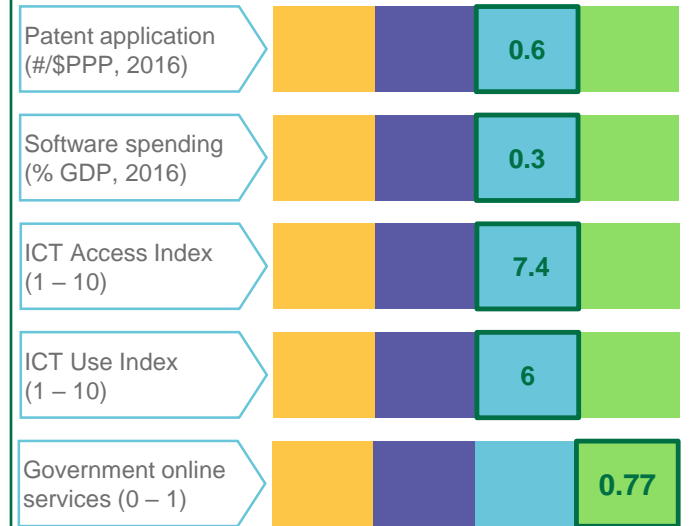
## ENABLING FACTORS

### ENABLERS

- Subsidized ICT upskilling programs sponsored by the government
- Dedicated entity (National Center for Artificial Intelligence) established by the government to foster sector growth and launch investor friendly measures
- Up to 50% tax credit on Saudi national worker's payroll and training cost for 10 years

### COST OF DOING BUSINESS IN KSA

Factor Ranking Amongst Regional Peers



# DEFINITIONS

#	SCORECARD SECTION	DEFINITIONS
1	<b>Market size</b>	Size of market in value/volume in KSA and/or Region (MENA/GCC) covering future projections based on available estimates from published /government sources
2	<b>Demand drivers</b>	A select number of factors that will influence future demand for the related product/service
3	<b>Investment highlights</b>	An overview of key financial metrics summarizing the investment opportunity along with the expected return based on the suggested investment size
4	<b>Value proposition</b>	Summary of key differentiators that position KSA as a strategic choice over other regional/global peers
5	<b>Market readiness</b>	An overview of KSA market structure, market maturity and level of participation by local and global players
6	<b>Competitor analysis</b>	List of the local & international players manufacturing the underlying product in Saudi Arabia and their market share
7	<b>Global trends</b>	Latest business developments within the sector/product category
8	<b>Scalability and localization</b>	Ease of scaling the business across the value chain or into new adjacent products or geographies that would maximize the opportunity's investment returns and the ability and potential to locally manufacture the product and its components
9	<b>Import dependency</b>	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
10	<b>Value chain analysis</b>	The process or activities that would potentially need to be carried out to deliver the underlying product or service
11	<b>Key stakeholders</b>	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
12	<b>Enablers</b>	Factors that enable investment in the underlying opportunity
13	<b>Cost of doing business in KSA</b>	Key factors that position KSA as a competitive destination for investment in the region. Productivity adjusted wages do not include cost of \$1.23/hour towards annual recurring charges including work permit, resident identity (iqama) and health insurance

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