Parthenon Perspectives

The Parthenon Group
Boston • London • Mumbai • San Francisco

October 2011

Investment Opportunities in K-12 and Higher Education in the UAE and Saudi Arabia

Prepared for

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About The Parthenon Group's Education Centre of Excellence

The Parthenon Group is a leading advisory firm focused on strategy consulting, with offices in Boston, London, Mumbai and San Francisco. Parthenon's Education Centre of Excellence is the largest advisory team to focus on the education sector, both for-profit and non-profit/government. As of Q3 2011 Parthenon has 40 professionals focused on advising the MENA and Asian education sectors. The Education Centre of Excellence is a leading advisor to the global education industry, with clients across diverse sectors that include publishing, primary and secondary education, higher education, consumer education, vocational education, corporate training, governments, foundations, NGOs and other non-profits. Since 2001, Parthenon has completed more than 400 education projects with private and public sector organizations – including universities, foundations, school systems and for-profit companies – in over 60 countries across the globe.

Executive Summary

In order to maintain and grow income levels the UAE and KSA require significant development of the education infrastructure. This is an opportunity for private investors to deploy capital in schools and higher education institutions – both sectors that can provide sustained and predictable income growth. To succeed investors should focus on meeting requirements of parents in the case of schools and students in the case of higher education. This report quantifies the scale of the opportunity, identifies attractive segments within schools and higher education in the UAE and KSA and provides guidance on parent and student needs.

Methodology

The Parthenon Group followed a bottom-up approach to collect data on the school and university level and referred to published information from government sources to corroborate our findings and results.

Our research for primary and secondary education sector comprises of more than 1000 schools across both the UAE and Saudi Arabia, which enrol more than 6 million children. The schools follow one of three curricula – international, mixed and local Arabic curriculum.

Similarly, our research on higher education covers all private and public universities in the UAE and Saudi Arabia. This includes institutions offering both local and foreign degrees.

1. Introduction

From oil dependence to diversification

Over the past three decades the GCC countries have gone through a significant economic and social change. Today GCC countries seek to develop competitive and diversified economies in order to reduce dependence on oil. Countries in the GCC region have stated aspirations to develop other industries in order to expand sources of income and have identified education as an enabler to transform their economies and achieve sustainable long term growth.

His Highness Sheikh Zayed bin Sultan Al Nahyan, the first UAE President: "Youth is the real wealth of the nation. The discovery of oil provides the necessary finances to improve the education system and develop academically and technically qualified citizens – men and women – able to serve their country in its future progress."

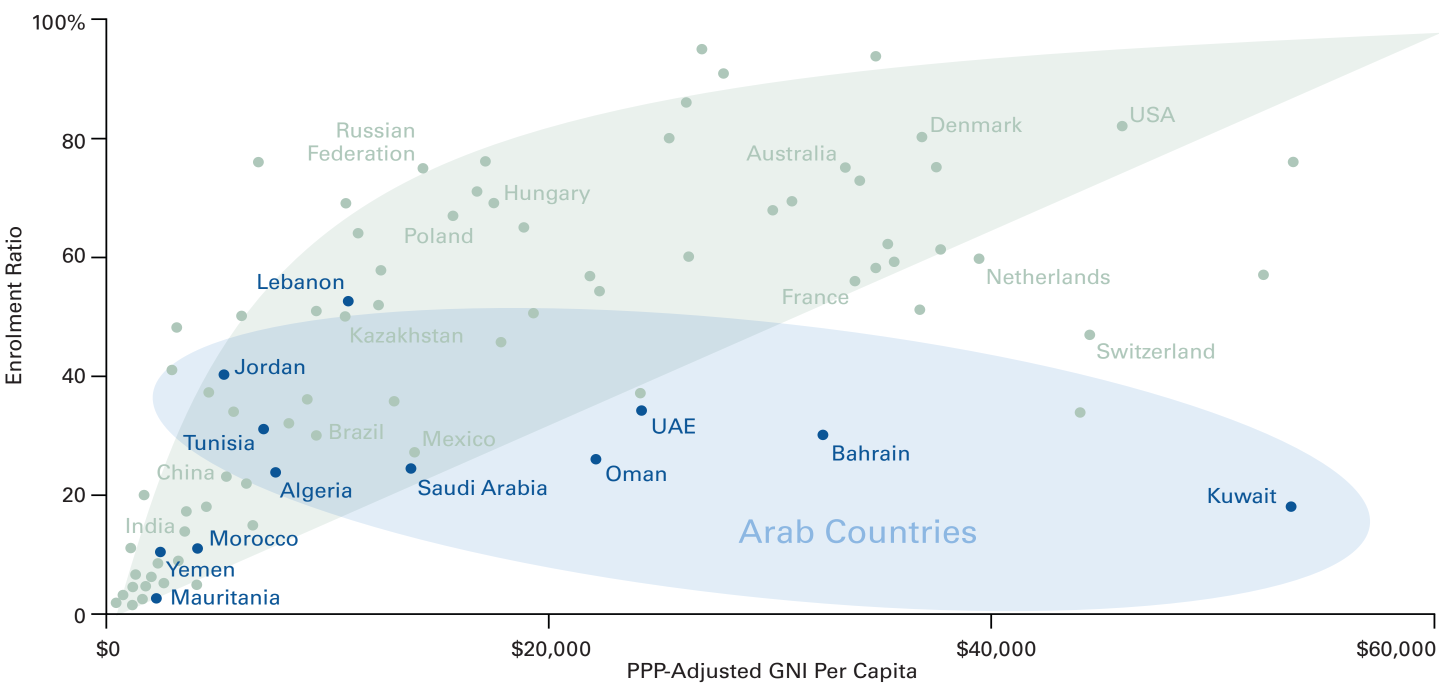
Education plays a crucial role in this evolution as it will create the necessary workforce for newly developed industries. As a result the GCC education sector has gone through important structural changes and is expected to grow strongly, creating a significant opportunity for investors.

The enrolment ratio in the UAE and KSA is low in comparison to benchmarks in tertiary education

Parthenon's research shows there is a strong link between a country's tertiary enrolment ratio and economic strength. While the education sector in the UAE and KSA is growing at a significant pace, the tertiary enrolment ratio is much lower than what would be expected based on income per capita. This indicates that **significant investment in education infrastructure is required for the UAE and KSA to maintain current standards of living without income from energy exports.** In order to develop globally competitive diversified economies the UAE and KSA should consider the development of education infrastructure as a long term sustained imperative.

World Higher Education Enrolment (81 Countries)

Enrolment Ratio vs. PPP-Adjusted GNI Per Capita, 2007



Source: UNESCO; Parthenon analysis

This report focuses on opportunities and challenges in building future education in the United Arab Emirates and the Kingdom of Saudi Arabia. The report focuses on the UAE and KSA as the high income per capita of the former and the scale of the latter make these markets interesting case studies for investors in education.

Focus on schools and higher education

The report focuses on schools and higher education as these are the sectors that have most consistently generated the highest return for private investors globally while also generating significant social returns.

Schools and higher education have five investor friendly characteristics which are rarely found together in one business:

	1. Long Term Revenue Visibility	2. High Barriers To Entry	3. Demand Greater Than Supply	4. Prices Rising Higher Than Inflation	5. Negative Working Capital
Higher Education	✓	✓	Depends on Course Type	✓	✓
K-12	✓	✓	Depends on Catchment Area	✓	✓

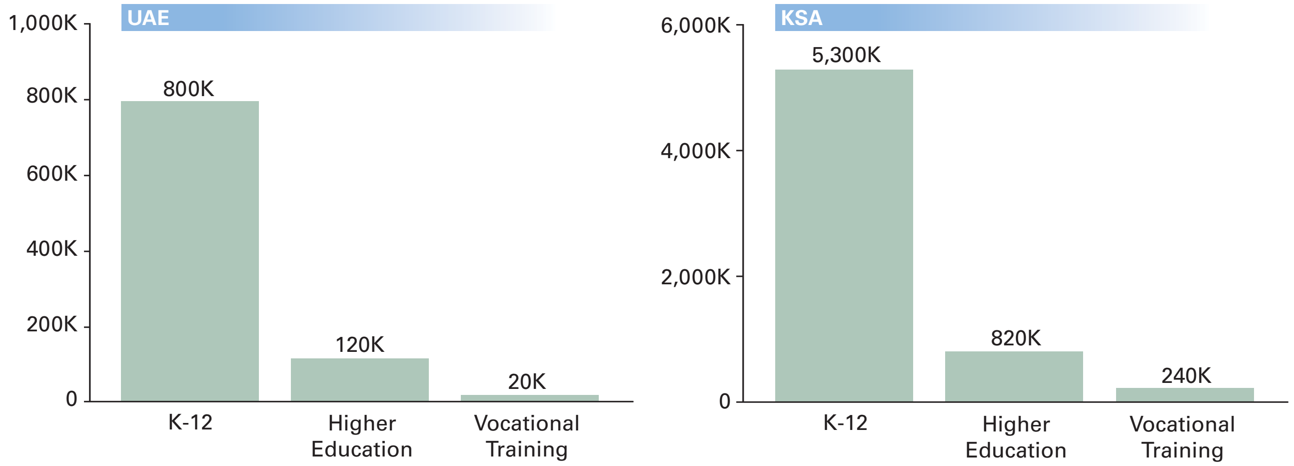
A note on vocational training

Private investors are often excited about the vocational training sector due to the relative lack of regulation and extensive media coverage on the skills shortage.

In reality, the number of students enrolled in the vocational training segment is insignificant compared to K-12 and higher education enrolment. Vocational training is an industry that struggles in any country with a fast growing labour supply. This is a worldwide phenomenon, occurring not only in the Middle East, but throughout the developing world including India and China. In developing nations, there are few examples of large private vocational training businesses in retail, financial services, security, construction or other sectors. The reason is simple: in fast growing labour markets employers do not discriminate against uncertified employees; in fact, data suggests they prefer to hire and train in-house. There are a limited number of exceptions to this trend. For example, allied health training in Malaysia is an attractive industry as the government mandates that all allied health professionals must have certification in order to practice in the field.

Education Enrolment in UAE and KSA

By Segment, 2011



Source: UAE and KSA Ministry of Education; Parthenon survey

2. UAE

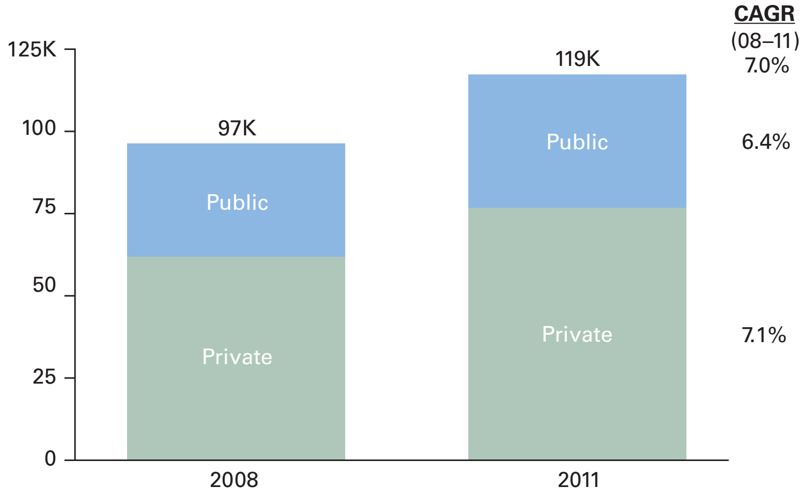
Western branded higher education institutions are growing at 18% p.a.

There are 120,000 students enrolled in the UAE higher education sector of which 78,000 are in private institutions. Public institutions are primarily meant to serve the Emirati population as they are free for Emiratis and have a limited quota for non-Emirati students.

	Public	Private
Description	Run by Federal Government of the UAE	Run by private organizations
Fees	Free education for Emirati students	Average fee levels – AED 40K per annum
Government Assistance	Full support provided by the government	Self-sustainable Semi-private universities partially supported by ruler/emirate government
Accreditation	Run by Ministry of Higher Education and Scientific Research	CAA (Commission for Academic Accreditation) accredited or in Free Zones

Public vs. Private Higher Education Enrolment

UAE, 2008–2011



Tertiary Enrolment Ratio	41%	45%

Source: UAE Ministry of Education; Parthenon survey

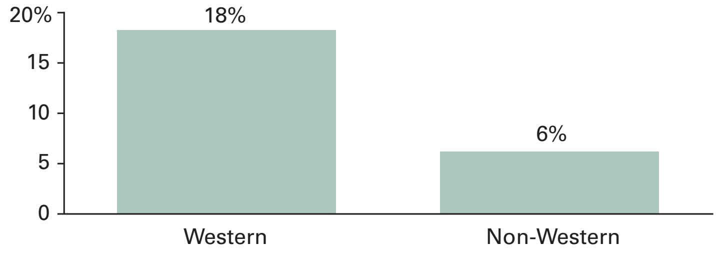
The private sector, with a total turnover of USD 870M, addresses the needs of the large expatriate population in the UAE, enrolling primarily South Asians and other Arab nationals. Private sector enrolment is growing at a robust 7%, however there are a total of 50,000 vacant seats available based on built capacity. While this would ordinarily suggest a highly competitive market, the **"western" higher education institutions** (e.g. Middlesex, Heriot-Watt) including those institutions that are simply "western branded" (e.g. Canadian University of Dubai, American University in the Emirates) **are experiencing 18% enrolment growth p.a.** and only have 6,000 vacant seats which should fill in less than two years at the present trajectory.

Western vs. Non-Western Institutions

Consumer Segmentation Details

	Western	Non-Western
Description	Branch campuses of non-prestigious Western brands and local Western-style brands	Local UAE or South Asian brands
Examples of Universities	Middlesex, Heriot-Watt Canadian University of Dubai, American University in the Emirates	Abu Dhabi University, Khalifa University Manipal Dubai, IMT Ghaziabad

Growth Rate, 2008–2011



	Western	Non-Western
Years to full capacity	1.6	7.2

Source: Parthenon survey and analysis

The popularity of "western" higher education institutions reflects the UAE's need for importing skills and skills development.

While the competitive environment across all higher education segments is becoming more intense – with 35 of the 83 higher education institutions in the UAE opening in the last five years – a niche high-calibre "western" style institution could be a high performing investment opportunity.

Enrolment in private universities is focused on making the student employable and so is weighted towards management, engineering, law, health sciences and education. Students to some extent weigh higher education options based on their anticipated "return on investment" making it important to price courses in relation to anticipated employment outcomes and salaries.

The UAE premium international school market is one of the largest in the world

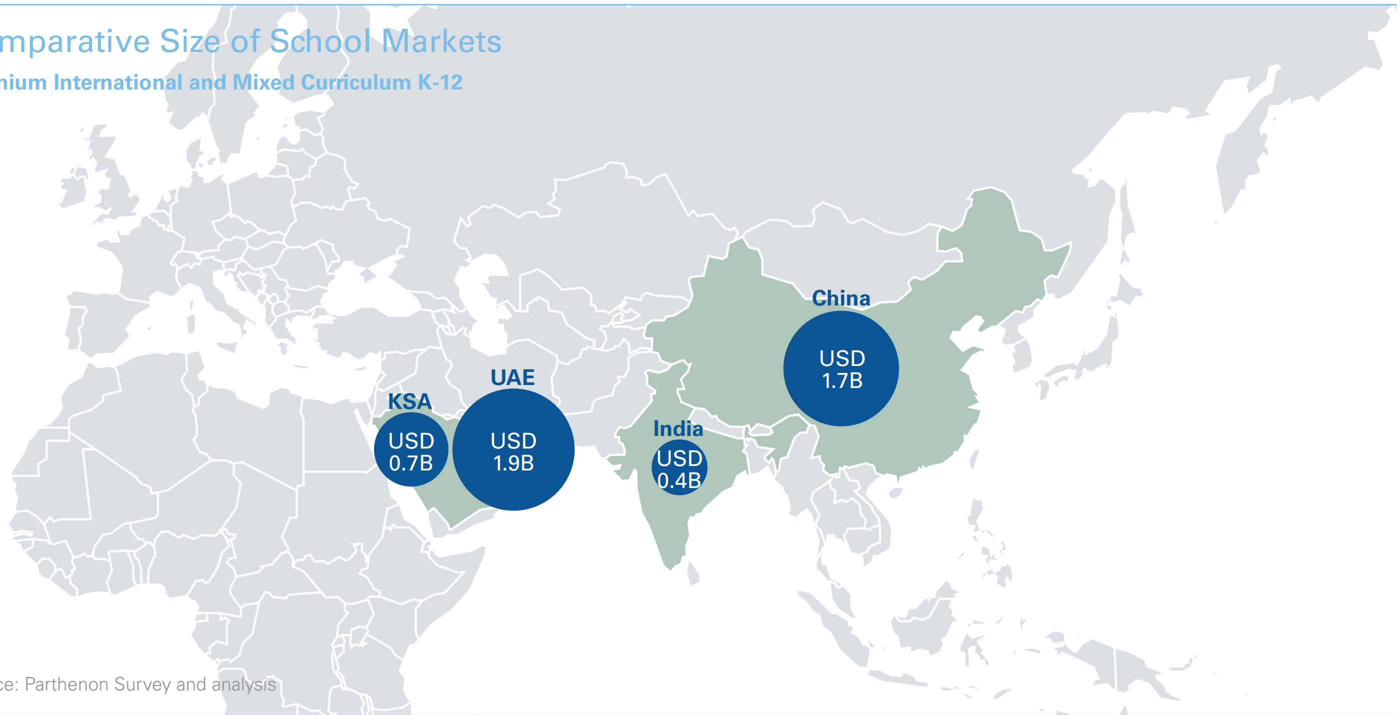
The UAE has a very large premium international and mixed curriculum school segment because of the large number of expatriates, accounting for ~85% of total population. Western expatriates also often benefit from a company allowance for school fees, making them less price sensitive than parents who pay out of their personal income.

The private school segment in the UAE continues to grow, sometimes at the expense of the public school system – which is declining in enrolment – as Emirati parents increasingly opt for international curriculum schools.

Emiratis are switching to international schools in order to provide their children with a more cosmopolitan experience; in particular they are looking for high quality English instruction. This trend of opting for international curriculum schools in order to access high quality English is present in markets Parthenon has studied around the world, from Vietnam to South America.

Comparative Size of School Markets

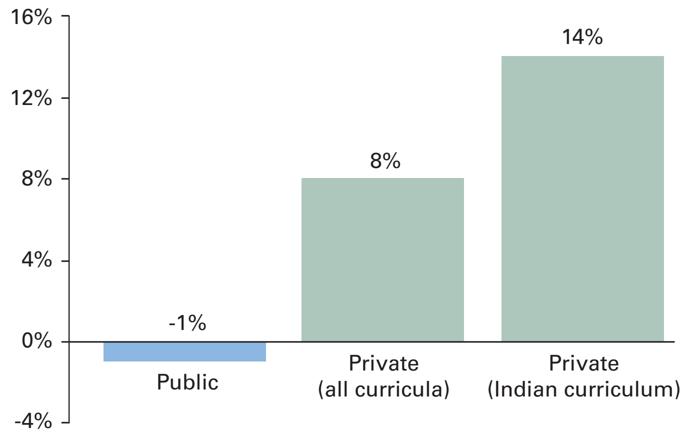
Premium International and Mixed Curriculum K-12



Source: Parthenon Survey and analysis

Public vs. Private Enrolment

Growth Rate, 2005–2011



Source: UAE Ministry of Education; Parthenon survey and analysis

50% of the UAE private school market is concentrated in Dubai with 40% in Abu Dhabi and Sharjah combined.

Similar to higher education, "western branded" schools tend to outperform the market. Repton School, a branch of the 450-year old school in the UK, was founded only in 2007 and is currently the highest priced school in the UAE with one of the largest enrolments.

The UAE international school market also has a sizable segment focusing on South Asian expatriates offering the Indian curriculum. These schools have a turnover of USD 160M and are growing at 14%. Interestingly, demand for these schools was unaffected through the downturn in 2009. In fact, some expatriates switched their children from premium schools to lower priced schools in 2009, increasing growth for the mid-price private school market.

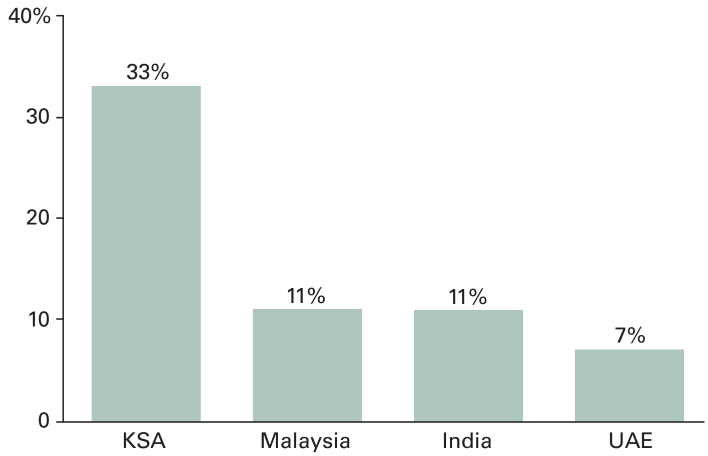
3. Saudi Arabia

Private higher education in Saudi Arabia is amongst the fastest growing globally

Private higher education enrolment in Saudi Arabia has grown at ~33% p.a. making it one of the fastest growing private education segments worldwide. **Between 2007 and 2011 revenue has grown by over 40% per annum and is estimated at ~USD 300M.** Half of all private higher education revenue comes from medical courses, where enrolment is growing at 45% per annum. Similar to India, China and Malaysia, the majority of private higher education enrolment in the KSA can be found in undergraduate courses.

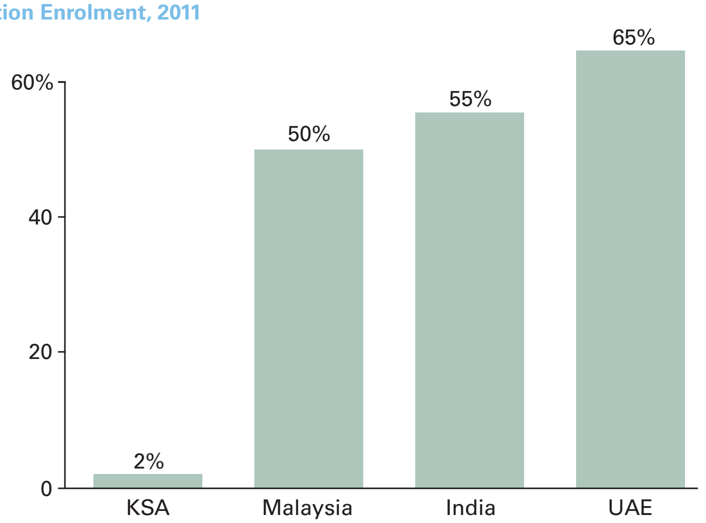
Private Higher Education Enrolment

Growth Rate, 2008–2011



Source: Parthenon survey and analysis

As Percentage of Total Higher Education Enrolment, 2011



Source: Parthenon survey and analysis

The growth of private higher education in the KSA is driven by three factors:

- Focus on employability: Over 80% of enrolments in private universities and colleges are found in courses that produce highly employable graduates, such as medicine, management and commerce, IT and engineering. By contrast, over 50% of students in public universities are enrolled in disciplines like humanities, sciences, etc.

- Demand for quality English education: Private higher education institutes offer better quality English language instruction than public universities. Private universities hire more expatriate teachers with better English language capabilities (37% of all teachers) than in public universities (5% of all teachers).
- Alternative for expatriate students: Public universities do not enroll expatriate students in Saudi Arabia. Saudi private universities offer these students an alternative for pursuing higher education in Saudi Arabia. ~25% of students enrolled in Saudi private universities are expatriates.

The private sector's share of higher education enrolment in Saudi Arabia has grown from ~1% in 2007 to over 2% in 2011 and this share is expected to grow to ~4% by 2015. **The Saudi government** encourages private participation in higher education and **has set a target for the private sector to achieve a 30% share of the total enrolments.** The government offers preferential funding to set up private universities. Students in private higher education receive ~90% of the government scholarships provided to students enrolled in all tertiary education institutes.

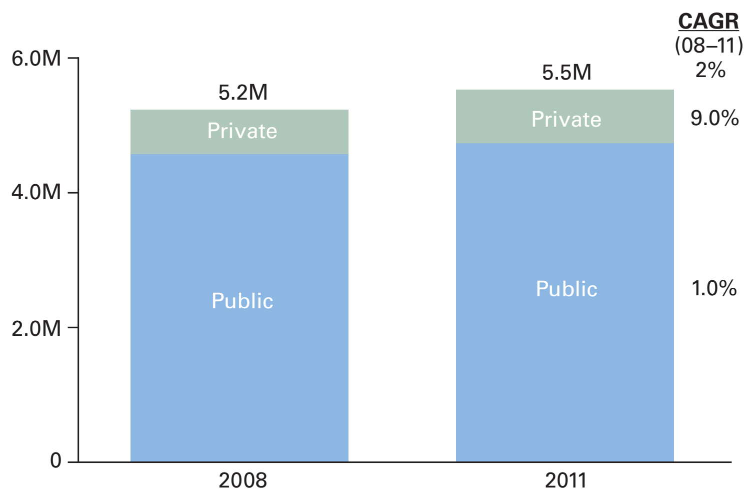
Foreign providers face certain challenges to enter the Saudi higher education market. While the Saudi government allows foreign providers to operate vocational training institutes, licenses to run higher education institutes are not provided. Foreign operators that wish to participate in the private higher education sector in Saudi Arabia can opt for management contracts with local Saudi education providers. There are examples of large global higher education companies entering into management contracts with local Saudi education providers.

International schools for Saudi students have significant potential

Private K-12 enrolment in Saudi Arabia – including KSA curriculum schools – is growing at 9% per annum and makes up 14% of the total enrolment in the K-12 sector. The private K-12 segment is estimated to be USD ~1.6B. Private schools have demonstrated better academic performance than public schools in the past based on results in national examinations.

Public vs. Private K-12 Enrolment

KSA, 2008–2011

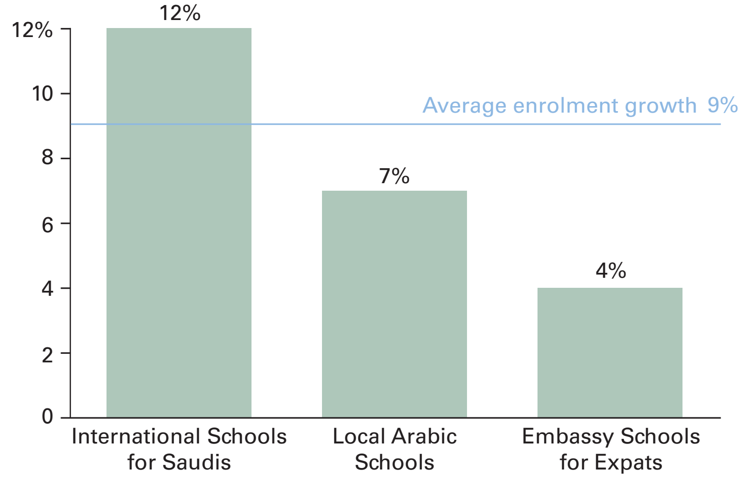


Source: KSA Mnistry of Education; Parthenon analysis

Typical mid-range private schools in Saudi Arabia offer better academic infrastructure than a majority of public schools. Given that attempts to reform the public school system have met with limited success, the government is targeting a minimum of 30% share of enrolments in private schools in the long run, with share in the large cities at 50-60%.

Private K-12 Enrolment Growth

By Segment, 2008–2011



Source: KSA Mnistry of Education; Parthenon analysis

Private schools that offer an international curriculum are poised for the highest growth over the next 5 years. The government recently allowed Saudi children to enroll in schools that offer an international curriculum such as IGCSE and IB. A special one-time approval is required by schools that want to offer international curricula to Saudi students. The number of schools and school chains eligible to offer the international curriculum to Saudi students has grown from 12 in 2007 to 32 in 2011. Based on the latent demand for international curricula among Saudi children, this segment of schools is forecast to grow at 12-15% per annum in Saudi Arabia over the next 5 years.

~75% of private school enrolment in Saudi Arabia is concentrated in the three largest metropolitan regions of Riyadh, Jeddah and Dammam. Private schools already account for a 20-25% share of enrolments in these regions. These regions are also expected to drive the majority of private school enrolment growth in the next 5 years, while the government focuses on rolling out public schools in smaller cities and rural areas of Saudi Arabia.

4. Parthenon Education Investment Framework

Higher Education: return on investment for students is key

HIGHER EDUCATION MARKET IS DRIVEN BY EMPLOYABILITY AND PAYBACK PERIOD

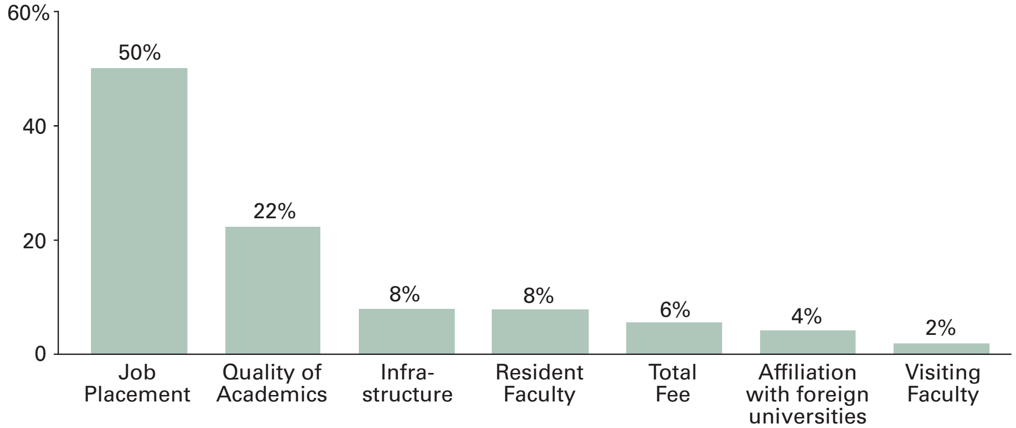
A higher education institution plays the role of an intermediary between students and employers supplying labour force to the market and providing employment training to students ultimately facilitating their placement into jobs.

Approach to Investments in Higher Education

Value Proposition – Bridging Employability Gap

Employability A global survey by The Parthenon Group illustrates that students seek higher education in order to gain improved employment opportunities. Generally, students evaluate the financial returns of getting a higher education degree based on the type of jobs and salaries they can get after graduation.

Primary Reason For Choosing Higher Education Institution



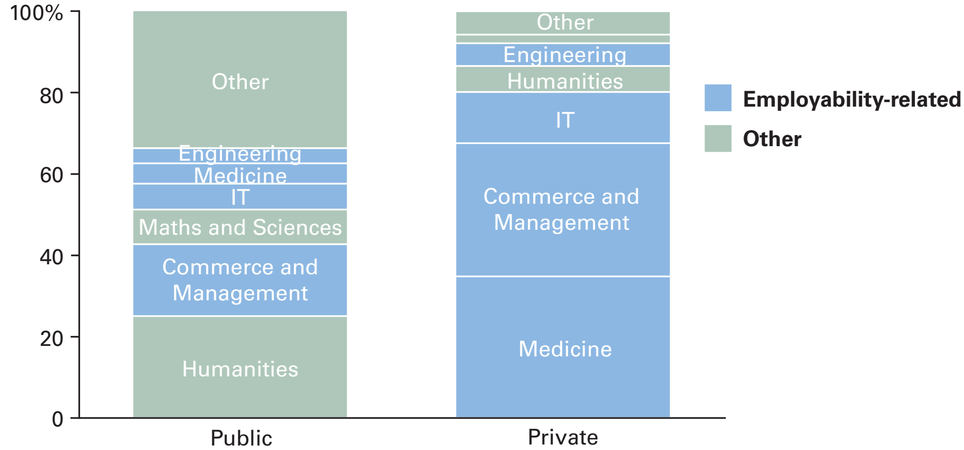
Source: Parthenon survey of students (N=1500)

Payback Period As with so many products, the offering has to make financial sense for the consumer, in this case the student. Most importantly, the fees that the students are charged must correspond to the types of jobs and salaries the students will be able to get after graduation. It has been observed that successful higher education models have an average simple tuition payback period of 1.5 – 2 years (i.e. the students are able to recover the amount they have spent on tuition fees in less than 2 years on the job after graduation).

The same criteria hold true for the dynamics in the Saudi Arabian and UAE markets. The private sector is growing fast in Saudi Arabia because graduates who speak better English are able to secure jobs that are better paid. Private universities in Saudi Arabia also offer courses which are more employability-related (*see the chart*). In the UAE, there is a common belief among students and parents that Western-branded universities provide better employment opportunities explaining the relatively higher growth that those universities are experiencing.

Enrolment in Higher Education by Course Type

KSA, 2011



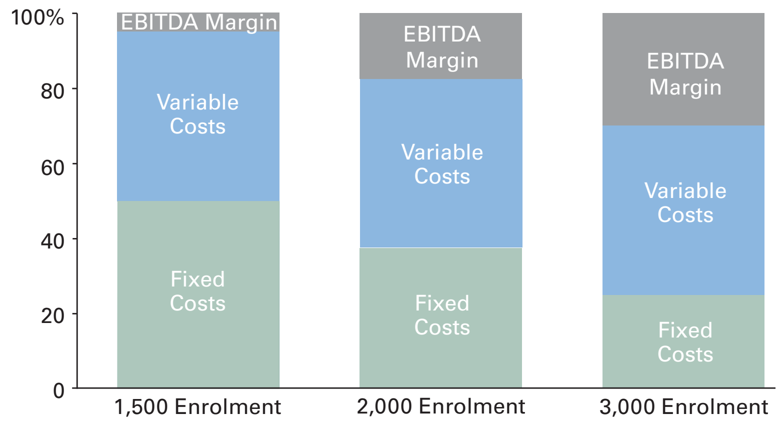
Source: KSA Mnistry of Education; Parthenon survey and analysis

ACHIEVING SCALE IS IMPORTANT TO ENSURE RETURN ON INVESTMENT FOR A HIGHER EDUCATION INSTITUTION

Apart from ensuring employability and charging a tuition fee with the right price point (based on the payback period) it is important for higher education institutions to achieve scale to ensure return on investment. While in some countries private university campuses can grow to 10,000 students by year 5 and 20,000 students by year 10, private universities in the UAE and KSA are on average smaller in size (with an average capacity of 3,000 students). Yet, they are able to achieve EBITDA margins of 30-40% once they reach a sizeable scale and achieve high capacity utilization. As a result, it is important for greenfield investors to consider scale when making the decision about a higher education investment.

Illustrative Profitability and Cost Structure

By Scale of University



Source: Parthenon analysis

K-12: Success in schools depends on local supply and demand

K-12 education is a local catchment business. Unlike higher education, where students often move to another city to go to college, K-12 students will travel within their neighborhood or city to go to school. Parthenon research shows that besides location, price point, curriculum and scale will largely determine the economic viability of the school.

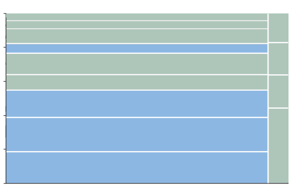
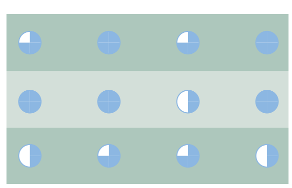
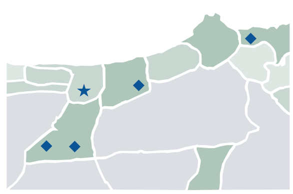
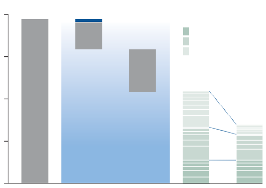
PARTHENON PROPRIETARY K-12 MICRO MARKET ANALYSIS FRAMEWORK

Parthenon has a proprietary approach to estimate market potential at the catchment level. This exercise analyzes potential investment targets and new investment opportunities in K-12, as shown below.

Analysis of the local catchment area can inform investors about the size of local demand (that is, how many children in the catchment area can afford your tuition fees), identify your competitors and give insight to the optimal capacity of the school. In the early planning stage, investors need to test assumptions on school rollout, price points and scale or they might end up having a school that does not run at full capacity or is financially unsustainable.

Approach to Investments K-12

Parthenon Approach

	Revenue			
	Define Market & Competition	Competition Benchmarking	Catchment Area Analysis	School Enrol-ment Potential
Key Considerations	• Enrolment numbers • Tuition Fees • Grades • Curriculum	• Facilities and infrastructure compared to competitors • Parent satisfaction	• Drive times to school and parent preferences • Income distribution of settlement population • Vacant seats at competitor schools	• Expected share of forecast demand
Key Outputs	Market Size	Fee Growth Potential	Catchment Enrolment Potential	Scale Potential of School
				

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