



King Saud University strategic plan

(KSU 2030)



Riyadh, May 2009





Foreward By Rector »
Vice Rector for Development & Quality Message »
Strategic Planning Team Leader Message »



Strategic Plan for King Saud University 2030

Higher Education - in the Kingdom of Saudi Arabia - has gone through various stages in which the universities adopted temporary strategies addressing mainly community needs and availing university education for secondary school graduates interested in pursuing their university education. Needless to say that higher education in the Kingdom was addressing - as a major priority - the question of admission of secondary school graduates to these universities. Hence student admission was a major concern of all universities, including King Saud University. Consequently matters like:-



- student admission and related
- the numbers admitted
- seats offered in lecture halls
- recruitment of appropriate teaching faculty took most of the university's concern.

Now with around 23 universities (government and private) in the Kingdom and an ambitious scholarships' program - namely the Custodian of the Two Holy Mosques' program - which raises a good opportunity for these universities to think - more clearly - of drawing subtle competitive strategies capable of qualifying them for international repute ; particularly in this 21st century characterized by a fierce competitive race for international fame emanating from the ability of nations to excel themselves in pursuit of attaining the greatest and most important resources - namely the human factor. That is why all - including universities - sacrifice and strive in the hope of attracting internationally -reputed faculty, researchers and professionals and investing in them as well admitting high quality students.

The status quo of higher education in the Kingdom, dictates on King Saud University to opt for an ambitious, subtle comprehensive future strategy capable of

allowing the university to attain its future aspirations! The university is well aware of the importance of strategic planning and its impact on developmental issues; that is why it has started the “ King Saud Strategic Plan “ Project through which the university draws its future plan in the hope of being a pioneer and attaining international fame in respect of the educational process, research and community service.

This Project is intended to push the university to international status characterized by Knowledge Economics and Investment in the human brain! Through this project, the university hopes to adopt communal and international partnerships through which it can achieve its visions and fulfill its future aspirations leading to distinctive international fame.

The University Strategic Plan has to take into account:

- the university's global status
- its strong infrastructure
- supportive budget
- distinguished highly qualified experts from internationally reputed universities and institutions.

King Saud University should set out for itself a future strategy capable of putting it among competitive national and international universities. Through such a strategy the university should adopt specifications of international universities characterized by financial stability and resources sufficient to support their needs. The university should also have programs – strong enough to attract students, researchers and distinguished faculty at the national and international levels. The plan should be flexible and realistic enough to achieve all KSU aspirations. The plan should be directed to qualify the university as an attractive source of work and study as well as being a pioneer university playing a leading role in the next 20 years towards achieving international distinction as well as in the production and generation of knowledge, with a graduate able to create a work opportunity supporting national economy. The university is expecting the strategic plan to contribute to improving the internal efficiency of the university as well as securing the quality of its throughput. The plan should also build on the university as an environment attracting distinctive caliber as well as attaining the requirements of assessment and

academic accreditation at the national and international levels. At this juncture, it gives me great pleasure, to invite all colleagues - faculty and employees - and my sons and daughters the students as well as those concerned of my country nationals and community elites to cooperate and communicate with the strategic plan team and pass their comments, recommendations and views – which no doubt build strongly on drawing the university strategy; since they all share the same future. I am also inviting them to pass their views, comments and participations through the workshop groups and seminars conducted for this purpose as well as through the internet.

May I also urge all to grasp this opportunity and make strategic planning a way and means of life to build a knowledge community, planning their lives on strategic grounds. Summing up we should all be proud of being affiliated to this profound and esteemed university as well as being founders of life and history looking forward to the university playing a leading role in the next 20 years in the production and generation of knowledge with our sincere gratitude and respect for all those who contributed in the development of the university.

Prof. Dr. Abdullah Abdurrahman AlOthman
Rector, King Saud University

A Word from Vice Rector for Development & Quality

Strategic planning has become an essential cornerstone of modern management in any organization. Indeed, with the increasing challenges that face both public and private institutions, level-based planning (i.e., short-term planning), which is commonly used in many organizations, has become ineffective nowadays without a strategic vision. In other words, it is of essence for higher education—and of major universities in particular—to adopt long-term strategic plans. Thus, there is no doubt that the tremendous support that Saudi universities have (with King Saud University in particular) stems from the authorities. This support is led by His Royal Highness, Custodian of the Two Holy Mosques, and His able trustee, the Crown Prince, both of whom have had a profound impact on the direction of the University towards long-term strategic planning.



King Saud University was the first to adopt long-term strategic planning through its 2030 University Strategic Plan. This plan maps out the road the University will pursue towards its set goal of becoming a world-class university. The plan is also designed to help the University reach its ambitious goals of building a knowledge-based society and achieving excellence in innovation and quality—all accomplished in a timely, efficient, and cost-effective manner.

The keen monitoring and guidance of the University Rector has resulted in the completion of the first phase, which comprises the preparation of the plan and the commencement of the project implementation plan. With the completion of the first phase, we are no doubt in great need of the efforts and cooperation of all the University units, staff, and the rest of the University stakeholders who share a vested interest in our future. This cooperation is essential to the University's success in its continuous developmental endeavors towards international leadership.

Dr. Hamad M.H. Al-Sheikh
Vice Rector for Development & Quality
King Saud University

A Word from Strategic Planning Team Leader

King Saud University believes in the importance of reviewing and monitoring its progress from time to time. Due to existence of global competition in higher education institutions, in attracting the best researchers and professors, graduating talented students and achieving creativity leading to inventions in order to build knowledge based society.



Also the rise in number of universities in Saudi Arabia which can provide university education for secondary school graduates, and the realization of the need and importance of contributing towards knowledge-based economy tributary of national economy. King Saud University has realized the need to re-examine its current status, and adopt a futuristic strategic plan to determine what must be done to achieve the world class university ranking.

In recognition of the importance of community partnership in building knowledge based society His Excellency the Rector Prof. Abdullah Al-Othman has establish a working team of faculty members from university to prepare the University's strategic plan for the next twenty years (see the list of Strategic Plan Team Members' Names).

Strategic planning team has worked for a year and a half to prepare the strategic plan of King Saud University, where the current situation analysis and the benchmarking comparisons were made from a number of distinguished universities and monitored some of their best practices. Through these intense processes the strategic plan of the University 2030 has been developed.

To enable effective partnership in building the future of the university strategic plan team started to interview a number of people through personal interviews and workshops consisting of more than six hundred person, from different social levels, and different groups. University strategic planning team directed by University President has had the honor of meeting many of the government officials, the team also met with many decision-makers at state and private sector, the team also met

with graduates and university students and staff. The interviews have been the basis for the views of given figures, as well as express the effective partnership with all levels of society and gathers necessary support for the plan in order to facilitate the implementation process and to have everyone inside and outside the university as real partners and actors in it.

The team came up with the support of leaders of the university, who sponsored the project and gave them the necessary time for the contribution of the university community and the various users to publish the vision of the King Saud University until 2030a as “ To be a world class university and a leader in building the knowledge society “ in the light of the university’s mission. The strategic plan team also adopted nine strategic objectives for the strategy to bridge the gap between the current and desired situation by 2030. These nine strategic objectives hopefully will lead the university to gain access to global leadership and excellence in building a knowledge society.

Prof. Salim Said Al-Qahtani
Strategic Planning Team Leader



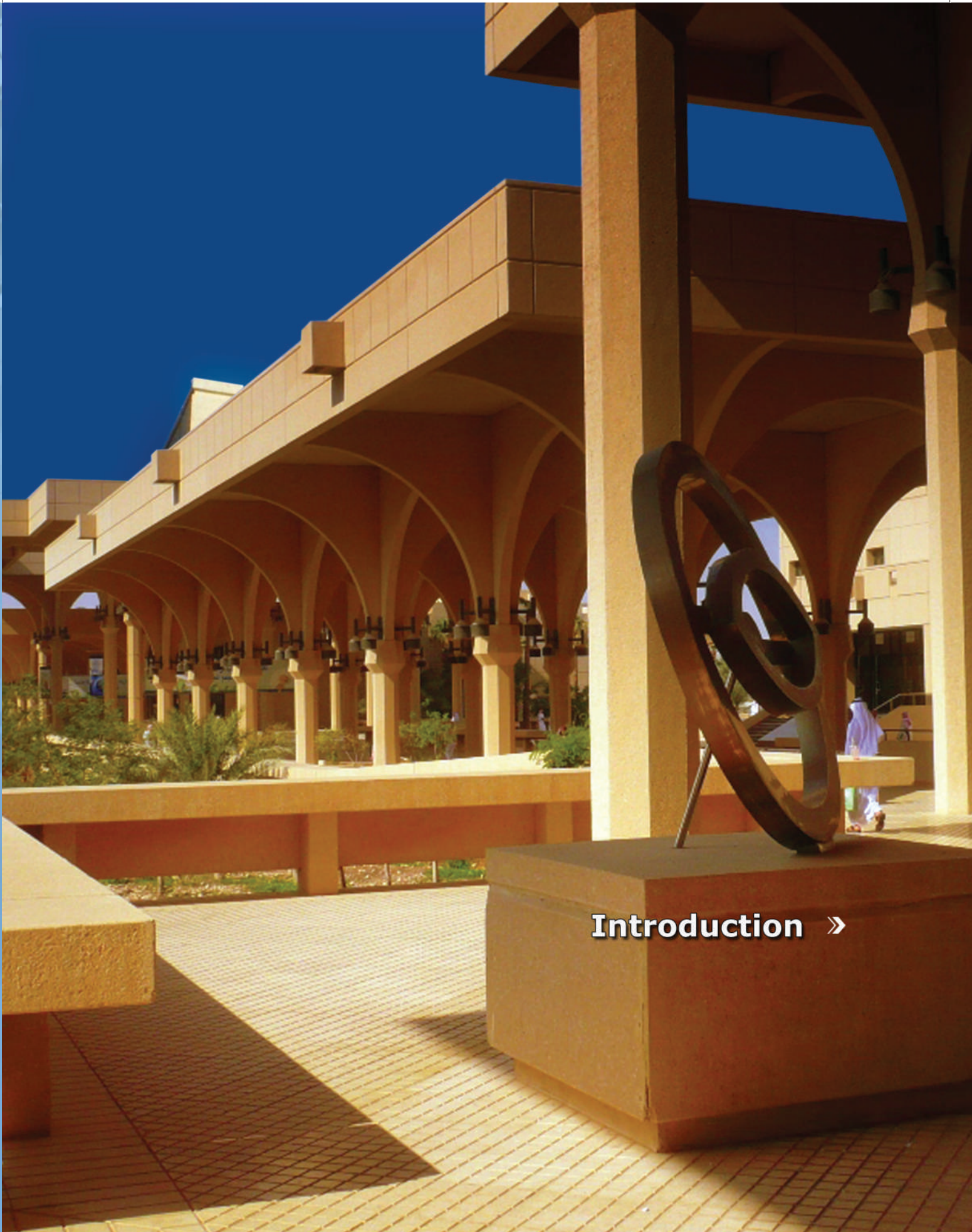
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Introduction »



1. Introduction

King Saud University, the Kingdom's largest and oldest higher education institution, enters the next decade facing a rapidly evolving national and international landscape. In particular, we face specific challenges:

- Upholding our public mission to educate the youth of the Kingdom, while also ensuring an outstanding education for each student,
- Ensuring our graduates are sufficiently grounded in academic theory, while also mastering the application skills demanded by the Saudi, regional, and global job market,
- Maintaining the richness and variety of our academic offering, while also attaining global recognition in select disciplines,
- Achieving excellence in teaching, while also building distinctive research capabilities,
- Advancing undergraduate education, while also bolstering graduate education to the benefit of the Saudi society,
- Pursuing the global trends of interdisciplinary research, while also attaining excellence within disciplines,
- Enabling an inclusive environment based on meritocracy and equality irrespective of gender, while also respecting Saudi social traditions and norms
- Serving the social and economic needs of the Kingdom, while also being recognized as a global contributor to the knowledge economy

For all the reasons highlighted above, it is clear our future development requires the guidance of a sound and coherent strategic plan, to clarify and affirm our ambitious goals and to craft a way forward, ensuring that we have the appropriate focus, initiatives, capabilities, and processes to successfully achieve our goals.

In early 2008, Rector Abdullah Al Othman appointed a Strategic Planning Committee, charged to prepare a 2030 20-year Strategic Plan for King Saud University by April 2009. Chaired by Dr. Salem Al Qahtani, Professor of Business Administration, and overseen by Dr. Hatim Abo Al Samh, Vice Rector of Quality and Development, our committee included 17 male and female members representing various faculty and colleges. Since its formation, the committee has met regularly and collaborated closely with administrators, faculty, students, staff, alumni, and public and private sector leaders to develop the Strategic Plan.

KSU's Strategic Plan outlines the main challenges facing the University in the coming years, strategic objectives and recommendations to address these challenges, and an action plan for implementation.

This introductory chapter sets the stage for the Strategic Plan and comprises five sections: 1) key external trends facing KSU; 2) important tradeoffs defining KSU's future; 3) KSU's strengths; 4) KSU's mission, vision, and values; and, 5) methodology of the Strategic Planning exercise.

Key external trends facing KSU

Several external forces and trends define KSU's environment today, in particular: a) Saudi school outcomes; b) Saudi demographics and job market needs; c) changes in Saudi's higher education sector; d) the entry of international brand universities in the region; and e) a desired shift in the Kingdom towards the knowledge economy. Understanding these trends and their impact is critical context for shaping KSU's strategic plan.

Saudi school outcomes

The low student skill attainment in Saudi during school has a significant influence on the caliber and pace of university offerings. For example, in a 2007 international math and science study of 8th graders (TIMSS1), Saudi ranked 54 out of 56 countries and regions in math, and 51 out of 56 countries and regions in science. Furthermore, 80% of Saudi 8th graders displayed 'little to no math skill' in TIMSS 2007, an identical showing to Saudi's performance in TIMSS

2003 (indicating little to no improvement in student outcomes over the intervening four years). The implication for all universities within the Kingdom is that they bear a critical burden to upgrade entering student skills in math and sciences to a level appropriate for university coursework.

Saudi demographics and job market needs

- Large youth population:

Saudi Arabia is at a critical juncture with regards to its youth population. Over 40% of Saudi's national population is below the age of 15; indicating that the Kingdom's higher education sector must have the capacity and quality to meet the needs of this burgeoning age segment.

- High youth unemployment despite strong demand for highly-skilled labor:

Labor market surveys indicate that 30% of Saudi youth (between the ages of 22 and 30) are unemployed, with many lacking the skills required by the job market.² As a result, a minority of Saudi nationals are employed in professional services (e.g. engineers, doctors), with over 80% of the workforce in these high value-added professions being expatriates. Over the next 10-15 years, the Kingdom faces the challenge of producing Saudi graduates with the skills required to meet the job market needs, particularly in these high-value added professions.

Dramatic changes in the Saudi higher education sector

Over the past few years, Saudi Arabia has witnessed a dramatic change in the tertiary education landscape. The increasing focus of the Kingdom's government leadership on education, with special emphasis on higher education, along with a prosperous economy, has led to a substantially larger budget for the education sector (USD 32 billion in 2009 vs. USD 25 billion in 2007), representing 25.7% of the 2009 government budget. Not only is this the highest sector allocation in the Saudi 2009 government budget by a wide margin (healthcare and social development is second, with an allocation of 11%), but such high spend on education is unprecedented on a global level.³ For higher education in Saudi, this expenditure has translated into the expansion of existing universities and the establishment of new ones. Today, the burden of teaching Saudi public youth has spread across more than twenty three public and private teaching universities in the Kingdom. The implication for KSU is that an opportunity and responsibility

exists to differentiate itself within Saudi's higher education sector.

The entry of international branded universities into the GCC region

Higher education has become global with universities increasing their international presence so as to expand their faculty and student bodies, and to have a global teaching and research agenda. The GCC has been no exception, with distinguished global universities entering the GCC at unprecedented rates over the past years. For example, Qatar has attracted institutions such as Cornell Medical School, Carnegie Mellon, and Georgetown, while the UAE has attracted London Business School, The Sorbonne, New York University, and INSEAD. The implications for KSU lie in both how to collaborate with the regional branches of these global institutions, as well as how to compete for students, faculty, and funding.

Desired shift in the Kingdom towards the knowledge economy

Oil has obviously driven Saudi Arabia's industrial growth over the past decades, producing great wealth for the Kingdom and lifting the living standards of our people. While oil will continue to play a defining role in the Kingdom's for decades to come, the national leadership has clearly signaled the importance of the knowledge-based industries (e.g. professional services, healthcare, engineering, education) for the Kingdom's future. Not only is this intent demonstrated by the high spend on education overall (as noted in section C above), but also by the advent of Saudi's six economic cities (which are largely focused on knowledge industries to generate over 1.3 million jobs for the Kingdom) and the launch of the King Abdullah University of Science and Technology (a globally unique post-graduate institution with a \$10 billion endowment). The implication for KSU is that it must deliver graduates and research that can fuel the Kingdom's knowledge industry agenda.

Collectively, these five external trends frame KSU's environment and are an anchor in our thinking of the role that KSU must play in the Kingdom.

Important trade-offs defining KSU's future

The need for a sound and coherent strategic plan at King Saud University is

driven by profound challenges and tradeoffs facing the future of our institution:

- **Upholding our public mission to educate the youth of the Kingdom, while also ensuring an outstanding education for each student:**

Achieving academic excellence requires that we only admit top-performing students. On the other hand, being a publicly funded university implies that we cannot become as selective as to fail in our public mission. We need to strike a fine balance between excellence and access, ensuring that a KSU education remains within the reach of every deserving student.

- **Ensuring our graduates are sufficiently grounded in academic theory, while also mastering the application skills demanded by the Saudi, regional, and global job market:**

Our graduates must have mastery of both the theoretical knowledge required for their professions, and application and soft skills (e.g. problem-solving, communication, leadership, teamwork) required to succeed in today's job market. Feedback from employers indicates that we are particularly falling short on the latter. We must ensure that our students acquire such application and soft skills, without diminishing their theoretical underpinning.

- **Maintaining the richness and variety of our academic offering, while also attaining global recognition in select disciplines:**

The breadth and variety of our academic offering is, in part, what makes our institution unique. However, no institution can excel evenly at every discipline. We must achieve a 'good' standard in each of our disciplines and maintain our comprehensive program offerings, and then accelerate excellence in a small handful where we can achieve global distinction. While we need to ensure that these selected disciplines have the support and resources they require to thrive, we must also continue to retain academic breadth and balance.

- **Achieving excellence in teaching, while also building distinctive research capabilities:**

Our increasing focus on research has translated into an abundance of research initiatives. Although this is vital to achieving our goal of becoming a globally

recognized university, it must not divert us from focusing on our core teaching mission and continually assessing and upgrading our capabilities to support student learning.

- Advancing undergraduate education, while also bolstering graduate education to the benefit of the Saudi society:

Increasing our research focus implies that we expand our graduate base. This, however, should not result in diminishing the quality of our undergraduate education. In parallel with building our graduate capabilities, we should continue to enhance and progress our undergraduate instruction.

- Pursuing the global trends of interdisciplinary research, while also attaining excellence within disciplines:

None of today's complex 'problem areas' can be solved in the confines of traditional academic departments – the future lies increasingly in collaboration across disciplines. However, before we can excel at interdisciplinary work, we must first achieve excellence in the individual disciplines we pursue.

- Enabling an inclusive environment based on meritocracy and equality irrespective of gender, while also respecting Saudi social traditions and norms:

KSU aspires to become a role model for how to foster a merit-based environment that rewards high performers and ensures a single-standard for both males and females alike, while being sensitive towards the Saudi cultural setting with respect to genders.

- Serving the social and economic needs of the Kingdom, while also being recognized as a global contributor to the knowledge economy:

As a leading public university, KSU has an obligation to serve the local community and to contribute to advancing Saudi into the global knowledge economy. This requires that KSU graduates students who are able to serve the community and advance the country, while also conducting innovative research that has global relevance.

Throughout the Strategic Planning exercise, we heard 4000+ voices discuss the above tradeoffs, and we analyzed literally hundreds of KSU facts and figures to

shed further light on the implications. We found eight facts to be particularly expressive about the challenges that KSU faces and so we outline them below (please refer to Chapter 3 for the comprehensive diagnostic facts):

- KSU has 111,000 total students today, relative to a maximum of ~45,000 students at the top 80 universities of the world (including public institutions).
- KSU's students are 90% undergraduate and 10% graduate, relative to ~50-50 at benchmarks.
- KSU's faculty spend 16% of time on research, relative to 30-35% at benchmark universities.
- KSU's funding per student is \$15,000 (of which 97% is public funds), relative to \$30,000-45,000 at benchmarks (of which 30-50% is public funds).
- 15-20% of 1st and 2nd year KSU students have a failing GPA (below 2.0), relative to 2-5% at benchmark universities.
- Critical academic and administrative decision rights lie outside of KSU in other government bodies, whereas leading public universities around the world hold these decision rights within the institution to enable greater flexibility of operation.
- 70% of KSU alumni perceive that they lack practical experience and skills when they enter the job market (this perception is equally held by employers).
- Over 60% of the different stakeholder groups we surveyed (students, faculty, alumni, staff) felt that KSU's reputation was average or weakening in the Kingdom.

Despite the significant challenges implied by these eight facts, we must emphasize the tremendous good intent that stakeholders nonetheless express towards KSU. The overwhelming majority want KSU to be successful in pursuing teaching and research excellence, and believe that, with the appropriate strategic direction and execution, KSU has remarkable potential to shape the future of the Kingdom. The Strategic Planning Committee has adopted this sentiment as its mindset for writing the plan that follows.

KSU's strengths

As we navigate the trade-offs and challenges defined in the previous chapter and define our future path, our strategy must reflect and build upon the historical strengths of KSU:

- 50 years of history and a pioneer in higher education in the Kingdom:

Since its inception in 1957, KSU has played a pioneering role in the higher education sector in the Kingdom. Starting with being the first university in Saudi Arabia to, most recently, establishing the first university private endowment program in the Kingdom, KSU aspires to always be a beacon for higher education institutions in the Kingdom

- A large number of influential alumni:

We have over 180,000 alumni, many of whom occupy influential and leadership positions in the Kingdom both in the Government and the private sector. These alumni are a source of strength for testing whether the University's direction is consistent with the needs of the Kingdom, growing our endowment, and enabling job opportunities for our graduates.

- Significant government support:

The Kingdom's leadership has set education as one of its top priorities. Within higher education, KSU continues to enjoy significant support and special attention as the largest and most prestigious university in the country. The recent visit of King Abdullah to our campus to lay the cornerstone for several strategic projects worth SAR 14 billion only affirms strong leadership commitment to the success of our institution, as well as amplifies expectations for our progress and delivery.

- A comprehensive academic offering:

The breadth and variety of our undergraduate program offering, ranging from Electrical Engineering to French Literature, makes KSU an attractive choice for many high-school graduates and gives our institution an edge in attracting students over other public and private universities in the Kingdom.

- A large base of Saudi faculty:

KSU has over 5,000 full-time faculties, of whom ~65% are Saudi. Throughout our history, we have attracted the most accomplished researchers and academics in the Kingdom, many of whom have been educated in the West. No educational institution in the Kingdom can boast a larger concentration of local talent than KSU.

- A local and global network:

KSU has built significant partnerships and relationships with locally leading industrial players and global higher education institutions. In 2009, KSU signed a memorandum of understanding with SABIC for the establishment of a plastics application development center within the Riyadh Techno Valley project worth \$100 million. Through its International Scientific Twinning Program, KSU has begun to create alliances with leading international universities, signing agreements with institutions such as University of Illinois, Harvard School of Public Health, Indian Institute of Technology, and National University of Singapore.

KSU's Mission, Vision, and Values

KSU's strategic plan must reflect the aspirations of internal and external stakeholders. Over time, KSU's aspirations have evolved significantly – at its conception, KSU aspired to become the first institution of higher education in the Kingdom, and to create an environment of higher education learning for Saudi citizens. In other words, the emphasis was on access to higher education in the Kingdom. Today, in an environment of 23 public and private universities in the Kingdom, stakeholders articulate a much more sophisticated aspiration for KSU, and which is anchored in quality, namely to become a national and global model of teaching and research excellence. The majority of stakeholders believe that KSU must continue to be the pioneer of higher education in the Kingdom and become the first research-based university, playing a pivotal role in Saudi's knowledge economy. This is not to say that KSU should shirk its teaching role; rather, that it must simultaneously deliver teaching and research excellence at both a national and global standard.

This aspiration is embodied in the following statements of KSU's mission, vision and values:

- Mission

- To provide distinctive education, produce creative research, serve society and contribute in building the knowledge economy and community through learning, creative thinking environment, the optimal use of technology and effective international partnership

- Vision

- To be a world class university and a leader in building the knowledge society

- Values

Based on our Islamic and cultural values, we uphold:

- Quality and excellence:

We measure ourselves according to challenging criteria, honoring high ambitions and the pursuit of distinctiveness through our commitment to the highest intellectual standards in teaching, learning and innovation

- Leadership and teamwork:

We remain committed to promoting individual and institutional leadership roles that drive social development upholding professionalism, responsibility, and innovation.

- Freedom of inquiry:

Rigorous and honest intellectual exploration is fundamental to our academic traditions, and it is reflected in all the dimensions of our scholarly activities.

- Fairness and integrity:

We abide by the principles of social justice, equal opportunity and cultural diversity, consequently holding the members of our community to the highest standards of honesty, respect, and professional ethics.

- Transparency and accountability:

We remain committed to expose our thinking and ideas for society and scholars to judge our contributions to global knowledge, and we hold accountable everybody in our community for respecting and upholding our values in all forms of their scholarly activities.

- Lifelong learning:

We are committed to lifelong learning inside and outside the KSU community, enhancing continued intellectual growth and welfare of the society.

Methodology

KSU's strategic planning process was designed to be highly participatory. Throughout this process, KSU's Strategic Planning Committee was committed to having all external and internal stakeholder groups contribute to the understanding of the challenges facing KSU and the development of the strategic objectives and initiatives.

The strategic plan had three major phases: a) diagnosis of current performance relative to aspirations and best-practice; b) development of strategic objectives and recommendations; and, c) development of an implementation plan to realize the strategy.

We diagnosed KSU's current performance relative to benchmarks along outputs and inputs (1/2)

Outputs	Levers	Categories
Institutional reputation	International	<ul style="list-style-type: none"> • International standing (rankings)
	National	<ul style="list-style-type: none"> • Reputation for teaching and research
	Internal reputation	<ul style="list-style-type: none"> • Students satisfaction • Faculty satisfaction • Staff satisfaction
Teaching Effectiveness	Achievement levels	<ul style="list-style-type: none"> • Students' hard skills • Students' soft skills • Students' language skills • Failure and graduation rates
	Transition to next phase	<ul style="list-style-type: none"> • Readiness for job market • Readiness for graduate work
Research effectiveness	Academic outcomes	<ul style="list-style-type: none"> • Collaborations with other universities • Publications (books, articles) • Awards received
	Industry outcomes	<ul style="list-style-type: none"> • Collaborations with industry players • Patents • Awards received

Source: team analysis

Understanding the current state of KSU began with conducting workshops and a SWOT analysis with KSU faculty and students on both male and female campuses. This initial analysis led to a set of hypotheses that guided the more intensive effort of the Strategic Planning team to assess where the university stands today in terms of its inputs and outputs (see Exhibits 1 and 2).

We diagnosed KSU's current performance relative to benchmarks along outputs and inputs (2/2)

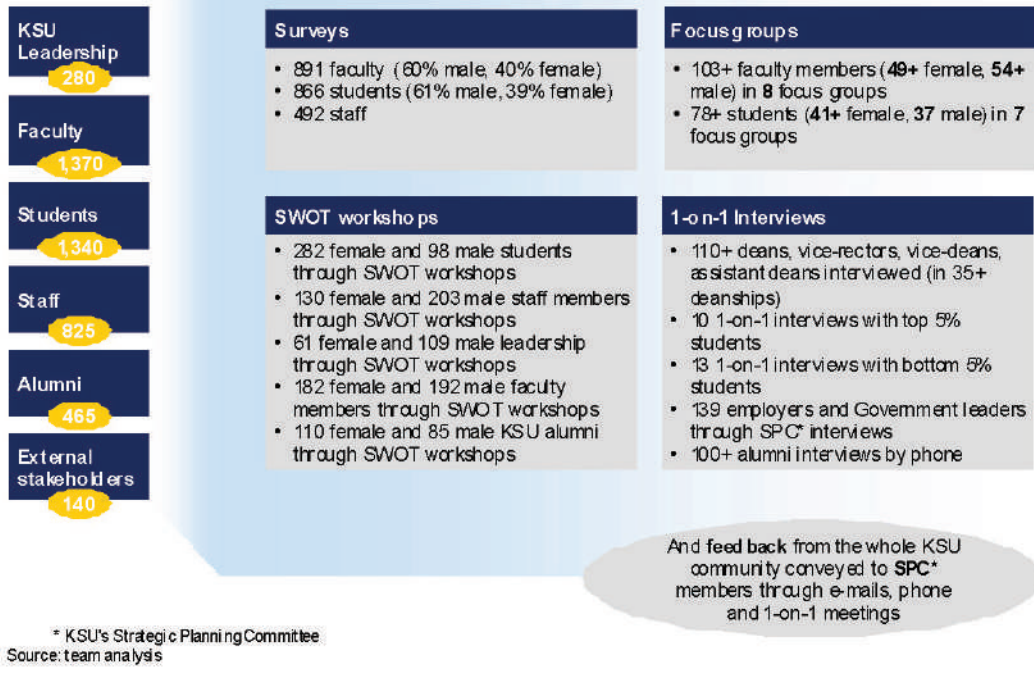
Inputs	Levers	Categories
People	Faculty	<ul style="list-style-type: none"> Quality of faculty Career path and development Support and accountability Equality of opportunities
	Student	<ul style="list-style-type: none"> Quality of incoming students Incentives and awards
	Staff	<ul style="list-style-type: none"> Quality of staff Support and accountability
Teaching and learning	Pedagogy	<ul style="list-style-type: none"> Curriculum Teaching method Tailoring of courses to student needs International programs Industry involvement
	Teaching and learning environment	<ul style="list-style-type: none"> Counseling and guidance Learning resources and infrastructure Student life
Research	Research environment	<ul style="list-style-type: none"> Support for research (people, infrastructure) International academic and industry connectivity Interdisciplinary collaboration
	Graduate program	<ul style="list-style-type: none"> Quality of faculty supervision Opportunities for graduate research Preparation for academic career
Governance and management	Governance and leadership	<ul style="list-style-type: none"> Decision rights Organizational effectiveness External stakeholder involvement Top team organization
	Funding and resources allocation	<ul style="list-style-type: none"> Level and diversity of funding Fundraising priorities Management of funding

Source: team analysis

To this end, the Strategic Planning Team analyzed student, faculty, and financial data, conducted interviews with internal and external stakeholders, and benchmarked the performance of KSU against a carefully selected set of universities.

In designing the Strategic Plan, we heard the input of more than 4000 KSU stakeholders and reviewed KSU's key data

x Number of people providing input



Input from internal and external stakeholders:

The Strategic Planning Team reached out to over 4000+ internal and external stakeholders including KSU leadership, Dean's Council, students, faculty, staff, alumni, and key private and public sector leaders (Exhibit 3). The input of these stakeholders was gathered through a combination of one-on-one interviews, focus groups, workshops, and online surveys.

Review of KSU documents and data:

The Strategic Planning Team reviewed key KSU documents throughout the work, ranging from university policies, to admissions and graduation data, to financials and accreditation reports.

Benchmarking and best practice analysis:

In order to understand how KSU compares against leading international universities and to draw on the experiences of relevant universities, we benchmarked a set of global universities and interviewed leading higher education experts (Exhibit 4).

We understood relevant global higher education best practices

We benchmarked universities...

- Ten benchmarked universities ...
 - Stanford
 - MIT
 - Harvard
 - Oxford
 - Cambridge
 - Tsinghua
 - Tokyo
 - National University of Singapore
 - University of Southern California
 - Berkeley
- ... covering as a whole four dimensions relevant to KSU
 - World leadership in research and teaching
 - Significant evolution in leadership positions/rankings over a number of years
 - Multi-site universities achieving excellence
 - Successful innovation and restructuring of their organization and disciplines
- A set of institutions were additionally targeted for specific learning (not exhaustive)
 - Indian Institute Technology
 - University of Melbourne
 - INSEAD
 - University of Pennsylvania
 - Goethe University Frankfurt
 - Sharif University
 - McGill University
 - IMD

Source: team analysis

...and interviewed global education leaders and experts

- Roberta Katz – Stanford Associate VP of Strategic Planning
- Philip Clay, MIT Provost
- Fred Moavenzadeh, leader of MIT-Masdar Initiative
- Paul Gray, former Berkeley Provost
- Diane Griffiths, Berkeley Secretary to the Regents
- Nora Silver, Berkeley Director of the Centre for Nonprofit
- Heather Bell, Director of International Strategy at Oxford
- Jessica Rawson, Head of Merton College, Oxford
- Kate Pretty, Pro-Vice-Chancellor of International Strategy, Cambridge
- Tao Tao Chang, Office of the Pro Vice Chancellor Cambridge
- Hikaru Ishiguro, COO Tsinghua University
- Xiaoyu Xia, Vice President of Tsinghua alumni association
- Richard Mills, Associate Dean of Harvard Medical School
- David Golan, Harvard Director of International Strategy
- Prof Tan Chor Chuan, NUS President
- Bhupinder Singh, Office of the President NUS
- Elizabeth Garrett, USC VP of Academic Planning and Budget
- Lloyd Armstrong, former USC Provost
- Professor Dharsi, Sharif Institute
- Wolfgang Koenig, Goethe University Frankfurt
- Professor Steinburg, President, Goethe University Frankfurt
- Peter Hill, University of Hong Kong

In addition to interviews with Senior Leaders of benchmarked universities, additional pre and post interviews were conducted for data gathering

In particular, the Strategic Planning Team filtered 500 universities to arrive at 10 benchmark universities. The 500 universities are ranked in the most widely used Academic Ranking of World Universities (ARWU), by Shanghai Jiao Tong University, and was analyzed using a broad set of criteria, with the selected benchmark universities respecting at least one or more of the criteria:

- **World leadership in research and teaching:**

Defined as universities ranked in the top-40 of the ARWU ranking. **Rationale:** Given that KSU aspires to become a globally leading research-based university, it will need to draw best practices from globally leading public and private universities who have reached achievements consistent with KSU's aspiration.

- **Significant evolution into leadership positions over relatively short period of time:**

Defined as universities that have achieved a significant improvement in overall rankings over a short period of time (over the past 10-15 years for American universities, and over the last 5-10 years for international institutions). **Rationale:** The consistent and regular improvement journeys experienced by these universities are role models for the type of transformation that KSU hopes to achieve.

- **Multi-site universities achieving excellence:**

Defined as universities that have campuses that are of significant size and geographically disperse. Additionally, these must be universities that are listed as part of the top 100 universities of the world. **Rationale:** Multi-site universities that have achieved excellence can help King Saud University learn how to operate effectively across its own multi-site campuses.

- **Successful restructuring of their portfolios and innovative approach:**

Defined as universities that have successfully achieved significant change programs, such as reducing the number of departments, dramatically simplifying their governance structure, promoting interdisciplinary research, or implementing key strategic priorities. **Rationale:** The approach of these universities can help KSU learn how to effectively implement a transformation program and organize itself for success.

The ten benchmark universities selected using the criteria described above represent multiple geographies. The team gathered best practices from these universities through interviews with the senior teams of these universities,

press searches, campus visits, and discussions with external higher education experts. A brief description of each university is provided below.

- **MIT:**

Excels in fostering student entrepreneurship and strong ties with industry. It also has a set of innovative programs that build bridges with high school students and teachers to ensure that high school graduates are university-ready.

- **Harvard:**

A university with an esteemed heritage, currently reforming its undergraduate education to keep pace with skills needed in the job market and taking steps to enable interdisciplinary work through creating a separate campus.

- **The University of California System:**

Constitutes a multisite university with a three-tier system involving research-based universities, teaching universities, and community colleges. The separate campuses loosely co-operate with each other to ensure that their activities are complementary.

- **The University of Southern California:**

USC has significantly raised the standards of its undergraduate education through preparatory schools and global recruitment, while focusing on the needs of their community. It has also launched innovative fundraising efforts to resource its research agenda.

- **Oxford University:**

Oxford undertook an ambitious streamlining of its complex internal organization structure, as well as launched a set of initiatives to promote research and to increase funding.

- **Cambridge University:**

Cambridge is known for its excellence in teaching and feeding a world-class pipeline of graduate students into research. It also holds the largest endowment outside of the US.

- **Tokyo University:**

The leading national Japanese university which recently (2006) changed its status from public university to semi-privatized. The quality of home-grown human capital is significant and it is a role model of university excellence outside of the West.

- **The National University of Singapore:**

Sparked by Singapore's economic needs, NUS has moved towards research since the 1990s and is now one of Asia's leading universities. It has also gradually become more autonomous from government through the development of a performance contract (whereby NUS commits to delivering certain outputs in return for greater freedom from government over key decision rights).

- **Tsinghua University:**

Tsinghua is the leading public university in China. The government has made significant investment in its infrastructure and has strongly emphasized the internationalization of its faculty. It has also built strong ties with local and global corporations and institutions.

Other institutions were also benchmarked for a particular discipline relevant to KSU (e.g. Indian Institute of Technology, University of Melbourne, McGill University, National Institute of Education, INSEAD, and Indian School of Business).

The overall intent of the benchmarking effort was to balance the understanding of international best practices with KSU's reality and the Kingdom's cultural uniqueness so as to arrive at an appropriate set of aspirations for KSU.

Lastly, a set of guidelines has supported the Strategic Planning Committee throughout the process, and which are important to highlight:

- We only highlight interview quotes when they are reflective of consistent themes across multiple interviews. As such, although quotes in this document come from a unique individual, they reflect a sentiment shared by many we interviewed.
- In addition, quotes, by their nature, reflect a perception of reality (which at

times, may not be fully consistent with facts). We have sought to highlight such quotes nonetheless because they exemplify the communication and mindset challenges KSU will face as it implements new initiatives and policies.

- This document presents a unified, comprehensive strategic plan for KSU as an institution. As such, it does not address school and department-specific issues, but rather cross-cutting institution-wide dynamics. All schools, colleges, and departments should take this Strategic Plan as the anchor for designing their own strategic plan, consistent with that of the institution.
- As recommendations from the diagnostic emerged, they were grouped into relevant strategic objectives supported by key initiatives. Criteria for selecting the objectives and initiatives are explicitly expressed at the beginning of each section.





What a great university looks like »

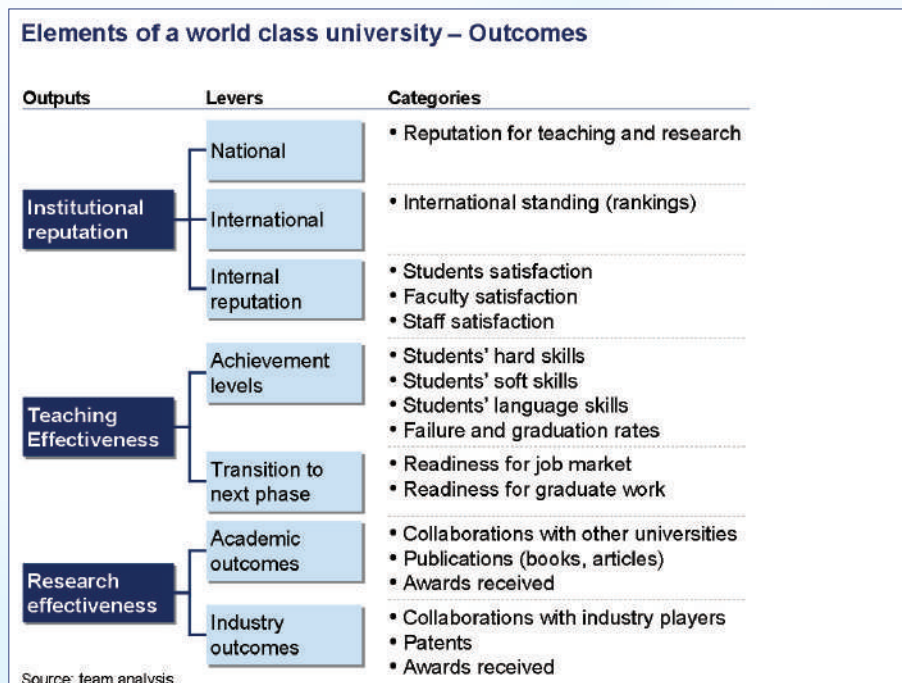


2. What a great university looks like

World-class universities appear in a number of configurations. Not only may they be public or private, but they may be large or small, from Princeton (with 6,000 students) to the University of Michigan, at Ann Arbor (38,000 students). The one feature that stands in common, however, is their academic distinctiveness in selected disciplines. As KSU embarks on a journey to raise its quality, it is helpful context to outline the common components of a ‘great research-based university’, with regards to both outcomes and inputs. As KSU seeks to raise the quality of its teaching and research, these elements will provide a constant reminder of the accomplishment thus far, and a guideline for the journey remaining.

Outcomes

Ultimately, the outcomes of a university are the acid test of its success. These outcomes can be measured in terms of the university’s overall institutional reputation, and its teaching and research effectiveness. The accompanying categories are outlined in the exhibit below.



Institutional reputation

The institutional reputation of a university is reflected in how it is perceived at the national and international level relative to peer group. National and local reputation is certainly the strongest measure of success for any institution. While internationally recognized comprehensive rankings such as the Shanghai Jiao Tong ARWU and the Times Higher Education Supplement provide an objective and respected assessment of comprehensive research institution's international standing, these rankings are incomplete in their nature; and reflect a one dimension perspective of what great university look like, often mimicking existing top institutions in the West. The mission of a university, based on the needs of the community it tries to cater is a much stronger reflection of success and reputation. Institutions such as KAUST have taken a non-traditional approach, addressing stakeholder needs and, most unlikely to be ranked internationally. Their success will truly be measured by the impact they have on their national constituents. Surveys and interviews with key local stakeholders (e.g. employers, applicants) provide a view of where an institution needs to stand and actually stands nationally. Equally important are the levels of satisfaction of internal stakeholders (alumni, students, faculty and staff) about their experience at the institution, as they strongly influence perceptions of future generations.

Teaching effectiveness

A university's ability to advance the learning and skills of its students is defined as teaching effectiveness. In particular, three types of skills are critical to student readiness for employment and/or progression to advanced degrees: 1) Hard skills, referring to mastery of discipline content; and, 2) Soft skills, referring to application skills and intrinsic skills such as problem-solving, critical thinking, leadership, teamwork, and communication; and, 3) Language skills (e.g. English and mother tongue). The extent to which an institution is successful in developing these skills constitutes its 'value-added' to students. This, in turn, is reflected on the job market as stronger graduates commend higher salaries; and place much more quickly in prestigious positions.

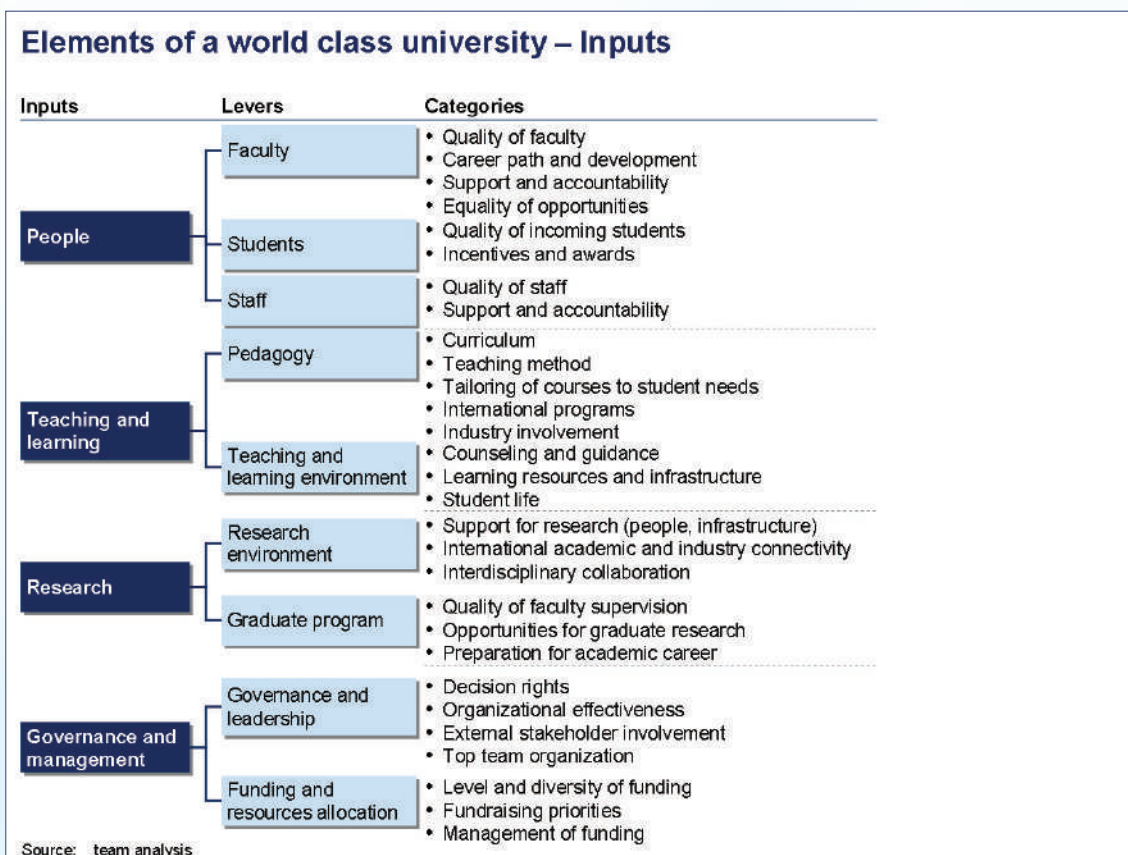
Research effectiveness

Research effectiveness tends to be more readily measurable than teaching effectiveness. It is defined as the ability of faculty and graduate students to produce

high quality, relevant research, as reflected in the number and impact of patents, publications, and citations based on objective international standards. In addition, other signs of research effectiveness are research partnerships with industry or higher education institutions, indicating that a university is highly sought as a research partner. Although the quality of an institution's research is greater than the sum of all faculties' outputs, indexes like the Hirsh-index can allow institutions to assess the output of individual researchers, their relevance and prominence on the international stage, in addition to the more standard awards and recognition such as Nobel prizes.

Inputs

Achieving the outcomes described above requires a “no compromise” approach on inputs, and a constant evolution towards a more effective and efficient institution. These inputs can be grouped into four sections, each with respective subcategories: People, Teaching and Learning, Research, and Governance and Management.



People → Faculty

A university is defined by the caliber of its people, specifically its students, faculty and staff. The environment that a university creates to foster their high performance and enable their full potential is critical. For the faculty, these inputs comprise four elements:

- **Quality of faculty:**

What do universities do to attract, select and cultivate the best candidates to join their faculty?

- **Career path and development:**

What tracks do universities have to ensure faculty excel in both teaching and research?

- **Support and accountability:**

What support is provided to faculty to deliver high performance? How do the institutions monitor performance and set up the right incentives to perform?

- **Faculty equality:**

Are all faculty judged and promoted under a uniform set of conditions and criteria?

Each of these four elements is addressed in turn below.

Quality of faculty

Ensuring that an institution recruits high quality faculty requires implementing a set of best practices along three dimensions.

- **Identifying the needs of the institution:**

World class universities match their strategic priorities with their recruitment needs, where they lack teaching and research capacity or capability. Often, a committee takes in account succession planning, areas of weakness for the department and identifies top targets – young faculty or senior faculty – to attract their institution.

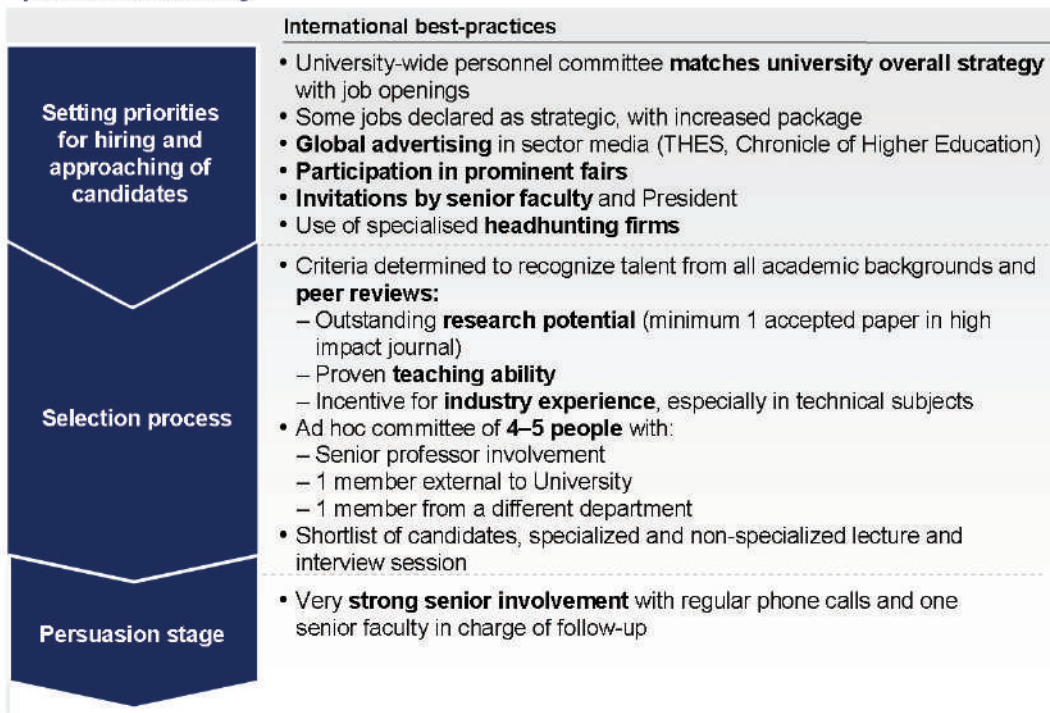
Attracting top candidates:

Attracting candidates to match the identified needs require communicating a unique, attractive value proposition through widely circulated journals, head hunters, as well as formal and informal networks. Communication an attractive value proposition financial and other environment benefits enables universities to fight for talent within their own institution..

- Selecting the best candidate for the institution:

Great universities conduct a thorough process in selecting candidates, geared at identifying strong potential in teaching and research, typically through peer academics' assessment. In all cases, the assessment carries several in-person interviews with a committee, accompanied by a specialized (research) and general (teaching) lecture or presentation.

International best practices in targeting and recruiting high potential faculty



Source: Interviews; team analysis

Research indicates that compensation is currently “a global game” with a majority of universities offering compensation around 80,000 USD for assistant professors. At the same time, faculty are offered highly valued perks (e.g. housing allowance, medical plan), showing a real commitment from the university. NUS is an example of a best practice university who has been able to adapt its recruiting practices and be able to select candidates from a sizeable pool through a sophisticated process that makes the Dean of the college ultimately responsible for ensuring that the search is a truly global one. The process has two phases: the short listing and the selection itself. In the short listing, process at least 3 thorough references are collected and there is an assessment of the relevance and potential of the candidate’s publications. For the 4/5 candidates that make it through the next stage, there is an in-person interviewing process which includes several interviews and lectures

Emerging universities augment their recruitment efforts very significantly. They recruit junior faculty and senior professors from top international universities on a part-time basis through a highly competitive value proposition. Junior faculty are typically attracted through the opportunity to hold positions that would be typically beyond their reach in more established universities, such as lead of a research group. Senior faculty are often attracted to the university through a combination of excellent benefits, and the ability to truly shape their own research agenda with the resources needed to succeed in the new venture. Senior professors such as Gavriel Salvendy of Purdue University have been attracted to Tsinghua to be able to lead the turnaround of a specific department. They are able to spend 50% of their time at Tsinghua, while holding their position at their home institution. For the purposes of ramping up capabilities quickly, universities also form partnerships with other universities and attract visiting faculty through formal collaborations and more informal programs.

Tsinghua has raised its compensation by providing up to 15 times the compensation in China to attract top faculty

Strategy for attracting high potential junior talent

Aim

- Offer an outstanding value proposition for young researchers to start their career at Tsinghua

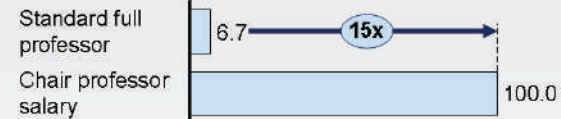
Characteristics

- Launched in 1998
- Privately funded
- Attracts promising post-docs to Tsinghua, typically Chinese post-docs in USA
- Attractive package comparable to U.S. benchmarks and negotiated one-on-one and research group leadership opportunity

183 academics joined so far

Strategy for attracting leading senior professors

Compensation, \$000 p.a.



- 50 leading international academic attracted so far under the chair professor scheme
- Flexible scheme permits up to 50% dedication

Example of Chair Professor



- Gavriel Salvendy: professor at Purdue University
- Chair professor and Head of Industrial Engineering Department at Tsinghua
- Part-time dedication (50% of his time) with rest in Purdue
- Has 3–4 Ph.D students at any time at Tsinghua and provides in person and remote supervision
- Gives yearly advanced lecture series and constant advice to deputy head

Source: Tsinghua web site; expert interviews

In addition to permanent faculty schemes, NUS adopted a strategy of actively attracting temporary talent

	Aim	Characteristics	Impact
Partnerships with international universities	<ul style="list-style-type: none"> • Sharing of faculty and students with world-leading institutions • Mutually beneficial partnership <ul style="list-style-type: none"> – Gives opportunity to faculty from other institutions to experience Far East – Provides global exposure for NUS students and faculty 	<ul style="list-style-type: none"> • Partnership with 9 top research institutions in the world 	<ul style="list-style-type: none"> • 9 different partnerships, including <ul style="list-style-type: none"> – Duke-NUS Medical School – MIT Institute in Singapore
Visiting Faculty Program	<ul style="list-style-type: none"> • Foster cross-fertilization of research between NUS and other universities • Faculty involved in teaching and research in NUS courses and research projects 	<ul style="list-style-type: none"> • Dedicated fund in each faculty • Typically 1–2 year commitment 	<ul style="list-style-type: none"> • 1–2 visiting faculty permanently in all schools
Visiting scholars program	<ul style="list-style-type: none"> • Attraction of top international scholars to NUS 	<ul style="list-style-type: none"> • School level initiatives in every School, with stipend and living expenses covered • Typically –3 month appointment 	<ul style="list-style-type: none"> • All schools and faculty currently with permanent visiting programs • Faculty of Arts funds 10 top scholars at any given time

Source: NUS web site; expert interviews

For the purposes of ramping up capabilities quickly, universities also form partnerships with other universities and attract visiting faculty through formal collaborations and more informal programs. NUS has, for the purposes of ramping up quickly its capabilities in certain priority departments used a similar tactic. It has formed partnerships with other universities and attracted visiting faculty through formal collaborations and more informal programs to virtually every college.

Career path and development

Universities display common themes in the management of the performance of their faculty, once they have joined the institution. Tenure and promotion tracks are designed based on the university and its faculty’s needs.

- **Criteria for promotion:**

typically include measurably high performance in research (2-3 papers in international journals, satisfactory teaching performance from a combination of student survey and senior faculty's assessment). Criteria do vary for each tenure level, requiring increasing demonstration of leadership in research groups and cross-university projects. Administration roles in departments and colleges are commonly required as faculty become more senior.

- **Evaluation process:**

normally involves committees of senior faculty with at least one external member with extensive input from specialists in the evaluated professor's field. There are several instances when a significant review of the performance of faculty is carried out. Typically, there is a yearly "directional" appraisal done at the department level which advises faculty on their status. On a three-year basis, faculty's performance (including tenured faculty) is reviewed using a thorough committee process with external input. Depending on the outcome of the review, dismissal or tenure of the faculty member can occur.

- **Time to tenure:**

is typically greater than 5 years. Additionally, in world-class universities, tenure is typically not guaranteed for all professors and it is a fairly selective process. In leading universities, 25-60% of assistant professors are not awarded tenure, depending on the institution.

Performance can only be ensured if faculty potential is nurtured through dedicated time to teaching and research that is in line with the strategic goals of the university. In world-class research institutions, faculties dedicate 30-37% of their time to research, 20-25% to teaching and 17% to other non-academic activities. In addition, the leverage of PhD students to support teaching and research is a common practice throughout all universities considered. These, in most cases constitute a large part of the teaching staff and the primary drivers of research efforts, with professors leading the work of PhD students.

Support and accountability

Universities also provide adequate learning and development opportunities

to continuously improve their skills, focus on research and build worldwide networks through professional development opportunities, including funding for conference attendance (on average up to 5), sabbatical allowances (usually 1 year for every 3 years), visiting professorships and further skill building seminars and workshops.

Additionally, universities throughout the world provide specific support for the development of their young faculty through a dedicated special treatment that provides them with:

- Start-up funds:

for their research, as they may not be able to access research funds straight away

- Mentorship from senior faculty:

who become responsible in their careers

- Workshops and seminars:

to support and transmit new teaching methods and approaches

- A reduced teaching load:

(for instance 70% of time dedicated to research at NUS), that enables faculty to develop fast research skills that at what is often the most creative part of their careers.

Equality of opportunities

In most universities top universities considered, career tracks are usually based on a mixture of teaching and research. Recent research by the Carnegie Foundation for the Advancement of teaching has suggested the actual existence of 3 flavours of excellence for faculty :

- Investigation:

Howard Hughes Medical Institute investigator Karel Sbovoda's use of microscopy helped to change the way scientist look into the brain; he does not teach but alumni from his laboratory are now professors at Harvard, MIT, UCLA, Imperial College, Friedrich Miescher Institute, INSERM*, Massachusetts

General Hospital, Duke University, etc.

- Education:

Stanford University Professor Sheri Sheppard investigated engineering education as the head of a multi-million dollar National Science Foundation grant, and as a result revolutionized engineering curricula with the development of “mechanical dissection”, a practical lab on design for undergraduates, now used in more than 30 universities.

- Practice:

Before becoming Professor of Practice at Harvard Graduate School of Education, Thomas Payzant served as teacher in the states of Massachusetts and Washington, and later as superintendent of schools in Boston, San Diego, Oklahoma City, Eugene, and Springfield; he was also appointed to the US Ministry of Education by former President Clinton

The diversity of these tracks also reflects the student’s needs for adapting learning to their styles, but also the field they are studying in. As such a new variation from the traditional research track has emerged, taking in account different preferences both for faculty and students. Investigators typically spend a majority of their time in research, with a reduced teaching load. Often their teaching loads are limited to elective courses, or graduate courses, training the next generation of students that will carry their research forward. Educators typically spend a majority of time teaching. These are often professors with established research excellence but have not shifted to inculcate their knowledge to new generation of undergraduate or graduate student. Although they have not abandoned their research activities, their performance will be assessed in majority in teaching. Finally, the practitioner track, often found in schools of business, medicine, education brings a deep industrial and practical knowledge to their classes. These are experienced professor with clinical or practical experience able to transmit industry rich knowledge to their students. Over the last few years, many American schools have evolved from the traditional research/teaching track to adopt a more flexible approach, including Harvard Medical School, Wharton business school and others.

In 2008, Harvard Medical School implemented an innovative track system and supports it through key strategic initiatives



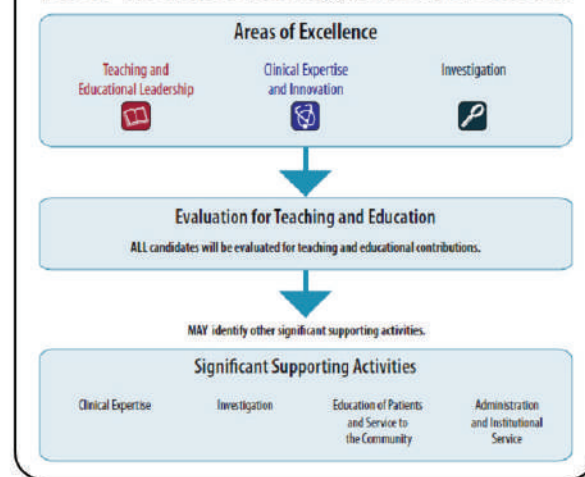
New track system

- Three distinctive areas of excellence
 - Investigation
 - Teaching and educational leadership
 - Clinical expertise and innovation
- Tenure-track faculty choose preferred area

Strategic support for a broader definition of scholarship

- Increase support for investigators
 - More funding for MD-PhD program
 - MMSc degree with full-time research year
- Value teaching activities
 - Creation of area of excellence
 - New Academy Center for Teaching, Learning and Assessment
 - New program in Graduate Education
- Stronger link to practice
 - Resident-as-teacher program
- Required scholarly project for students, emphasizing service to the community

HMS & HSDM* faculty chooses to focus on one area of excellence: teaching, practice, or research



Under the new criteria, scholarship is explicitly defined broadly to include not only peer-reviewed publications but also educational materials, policy statements, assessment tools, and guidelines for patient care

HMS & HSDM promotion guidelines

* Harvard School of Dental Medicine

Source: 2008 HMS & HSDM Criteria for Appointment and Promotion; HMS strategic plan

For all permanent faculty regardless of their background, with a pay that is based on seniority and merit, with equal opportunities for promotion, award of tenureship, as well as access to senior academic leadership positions. This is crucial for ensuring that a university is able to attract and retain great faculty, whatever their background may be. Universities such as MIT have established specific roles in ensuring faculty equity in their institutions.

People → Students

Admitting high quality students is a key driver of great outcomes in a university. For public universities throughout the world who have a duty to educate the public, striking the right balance between size and quality is a particular challenge. Nevertheless, high-performing universities display two major common elements

- Rigorous admission criteria to ensure quality of incoming students.
- Provision of awards, incentives and programs for their best students.

Admission selectivity and criteria

For world-class public universities, the admissions selectivity and criteria challenge is particularly complex. Their role to train the masses is often in tension with the quality of students they aspire to admit. Nevertheless, a majority of public universities apply rigorous admission criteria and are selective in their admission. Criteria include:

- Academic performance in high school or equivalent
- Standardized tests (e.g. SAT)
- Outstanding performance in any academic field of study
- Special talents or achievement e.g. languages
- Interviews conducted by alumnus or faculty
- Essays, letters of presentation
- Recommendation letters

Naturally, these criteria are used in combination to identify students with most aptitudes and potential to succeed in the chosen discipline. World recognized public universities are also selective, with the support of their government who provide viable and relevant alternatives for non-admitted students.

High performing public and private universities have rigorous selection processes

Public
X
THES rankings
2007

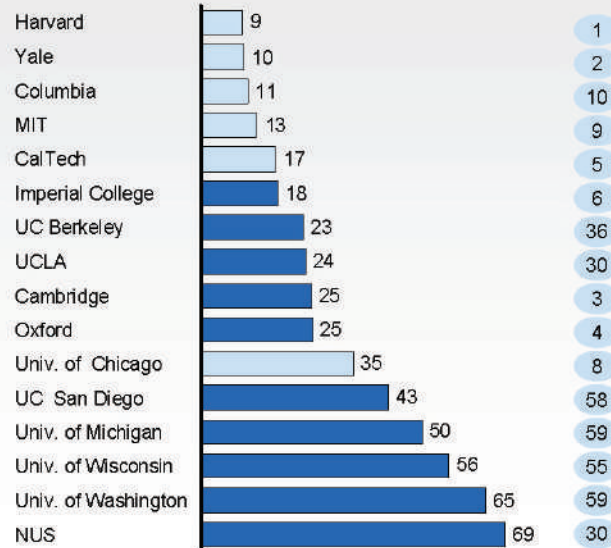
Elements of the admission criteria at public, private universities

- 1 Academic performance in high school or equivalent
- 2 Standardized tests (e.g. SATs)
- 3 Outstanding performance in any academic field of study
- 4 Special talents or achievements, e.g., other languages
- 5 Interviews conducted by faculty, or alumnus
- 6 Essays, letter of presentations
- 7 Recommendation letters

Universities use a combination of these elements, tailored by the needs of each school

Acceptance rate at major public and private universities

Percent acceptance rate, latest year available



Note: Final KSU data not available at time of document production

Source: <http://startfinder.ucop.edu/>, California Department of Education - Educational Demographics Unit, team analysis

Incentives and awards

Globally, universities support students 'needs-blind' through a number of incentives. These incentives range from scholarships to attract the best students, as well housing and tuition. Often, the funds are obtained directly through endowed scholarships. Additionally, universities such as NUS are able to provide distinctive propositions for students through specific "Honors Program". In NUS' case, this is a highly selective program with differential courses and opportunities for the students that enroll in it.

NUS adopted specific initiatives to attract and reward top students in their programs



ILLUSTRATIVE

Incentivize financially	<ul style="list-style-type: none">▪ Full tuition to top local students, including living allowance (SGD 6000 per year) and full support for international exchange program▪ Faculty specific scholarship for key areas (engineering, biosciences)
Expand reach to International students	<ul style="list-style-type: none">▪ Attracting top high school students (up to 20% of incoming class) through<ul style="list-style-type: none">– Financial incentives (attached with obligation to work in Singapore for 2-3 years)– Proactive student recruitment program with Singapore Tourism Board in foreign countries
Proactively reach out to high school students	<ul style="list-style-type: none">▪ Creating of NUS High School of Mathematics and Sciences fostering critical thinking, independent learning, problem solving, research and excellence in science and technology▪ Reaching out to local and regional high school students through on-site presentation, campus events, open house
Tailor programs for top students	<ul style="list-style-type: none">▪ NUS Overseas Colleges providing students a 12-month opportunity to study and work in international students (e.g. Stanford and Silicon Valley)▪ Special Programs for Sciences to identify and support extraordinary science students▪ University Scholars Program to promote multidisciplinary interests▪ Student exchange programs at NUS

Source: Interviews; team analysis

People → Administrative Staff

Support staff is an important constituent of successful universities. They often are 2 or 3 times larger than the size of the faculty and administration they support. As in any institution they must be treated fairly and be provided with a clear career path. Three principles govern the way staff members are treated at great universities

- Hiring process:

that allows flexible matching of requirements to people, with faculty ultimately deciding what support staff they want in their teams.



- Leverage of contract in hiring and staffing:

so that non-performing staff can have their contract discontinued. While this

is a challenge, especially within public universities, many public institutions are shifting away from the civil servant model.

Example

Benchmarked universities deliver compelling professional development tools and attractive benefits to their staff

	Professional Development	Benefits
	<ul style="list-style-type: none"> ▪ On-the-job development tools <ul style="list-style-type: none"> – Feedback tools (e.g. 360 degree feedback) – Role based assessment (a process of comparing one's knowledge and skills to that of a current or future job) – On-the-job learning (access to large menu of online and classroom courses) ▪ Exploring opportunities at MIT (e.g. job and career information, networking and information interviewing) 	<ul style="list-style-type: none"> ▪ Tuition assistance ▪ Personal assistance program (specialized counselling and referral services to staff facing issues that may affect their work or family life, e.g., work related concerns, stress, marital or family issues) ▪ Financial benefits (e.g. life insurance retirement benefits, etc.)
	<ul style="list-style-type: none"> ▪ Career development <ul style="list-style-type: none"> – career resources, e.g. self assessment tools, career exploration, goal setting, and job search tools – Career counselling ▪ Learning (access to online and classroom courses, e.g., professional effectiveness, managerial effectiveness) ▪ Mentoring program (junior staff are assigned senior staff mentors) 	<ul style="list-style-type: none"> ▪ Tuition assistance ▪ Competitive pay and raises based on merit ▪ Courses and learning assistance ▪ Childcare grant program ▪ Retirement plans ▪ Adoption assistance

Source: University websites

- Support, benefits and performance management:

It is typically challenging to provide an attractive environment that motivates and retains high-quality staff. However, the best universities manage to do precisely this through providing a sophisticated professional development and high quality benefits. Professional development must include sophisticated performance management and a clear career progression path (when available). MIT and Stanford both constitute very good examples of how this can be done.

Great universities fulfill their mission of educating through great **pedagogy** (curricula, teaching methods, and a customized experience for students) and


great teaching and learning environment supporting teaching and learning.

Teaching and learning->Pedagogy

Higher education Institutions are making a constant effort at improving their curricula and teaching methods. Curricula across the world are evolving towards being more integrated with industry needs, offering greater opportunities for independent and team work, as well as entrepreneurial activities and work experience. A good example of this trend is provided by the recently revamped Electrical Engineering curriculum of NUS:

Universities train their faculty in dedicated “teaching academies” in order to achieve the outcomes and behaviors required. These efforts have the development of the students’ experience directly in mind, especially in the development of their soft skills. They have a combination of compulsory basic skills trainings and voluntary additional trainings.

International programs have embedded industry-oriented activities in most curricula



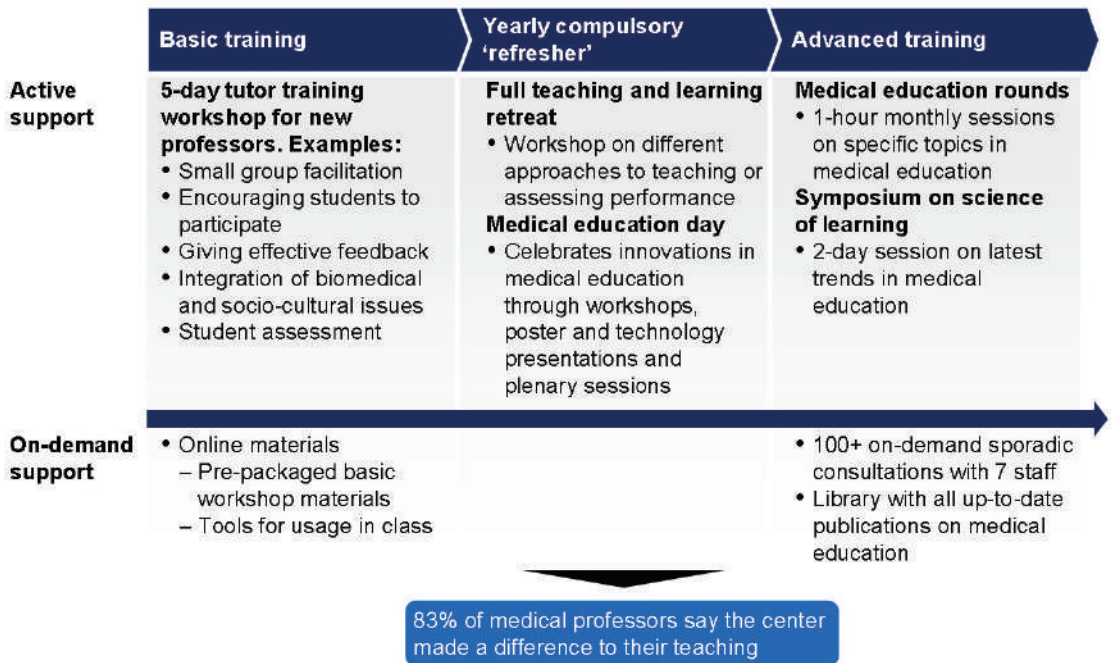
Formal Curriculum of Electrical Engineering and Computer Science at NUS		Student Enhancement Programs (taken as electives)	
Strong foundational year	<ul style="list-style-type: none"> ▪ Mathematics ▪ Physics ▪ General studies (Singapore) ▪ Introduction to Engineering ▪ Programming ▪ English 	Industrial attachment program	<ul style="list-style-type: none"> ▪ 24 week part-time Engineering company placement
2 nd and 3 rd year	<ul style="list-style-type: none"> ▪ Core Engineering and Computing Modules ▪ Management for Engineering Module ▪ Elective subjects 	Vacation internship	<ul style="list-style-type: none"> ▪ 12 week program in Engineering company
4 th Year	<ul style="list-style-type: none"> ▪ Team research project ▪ Engineering in Business Project ▪ Major research-level dissertation 	Undergraduate research opportunity	<ul style="list-style-type: none"> ▪ Summer vacation research opportunity in Department
		“Technopreneurship programme”	<ul style="list-style-type: none"> ▪ Launch of own technological company in NUS's company incubator

All students take part in one of the programs at least and take credit up to ~20% of the total degree hours

Source: Interviews; team analysis

Harvard Medical School has a dedicated Institute that supports faculty to develop their teaching skills

HMS's Academy Center for Teaching and Learning



Source: HMS Academy Center for Teaching and Learning website; expert interviews

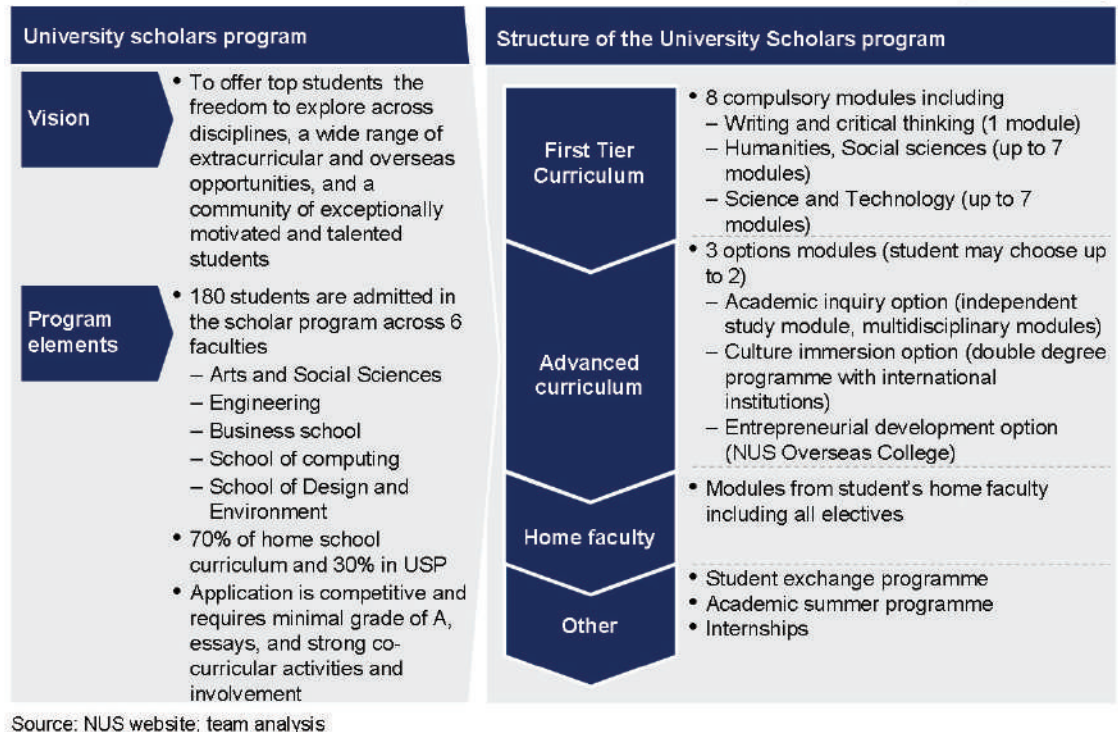
Additionally, great universities ensure that students have a rounded experience through the provision of exchange programs, industrial placement, extra-curricular activities supported by the university. Universities throughout the world have developed one-to-one exchanges with international counterparts as well as joining in wider common frameworks, such as the Erasmus programs.

Programs such as NUS' University Scholars for high achievers further tailors the student experience, including extra opportunities for industrial placements.

The University Scholars Program at NUS provides top students, a tailored and flexible academic experience



ILLUSTRATIVE



Teaching and learning->Environment

Beyond the purely academic, the student experience is complemented and improved through adequate counseling and guidance, a great environment in terms of learning resources and infrastructure; and excellent student life in terms of extracurricular activities.

Counseling is an integral part of a university's mission to help students transition to adult life. It has two main components: academic advisory and career advisory.

The University of Pennsylvania provides a great best practice in its academic advisory offering, providing a strong remedial path as well as focusing on preventative elements. Career counseling is, by all means a standard throughout universities, NUS provides a great example.

University of Pennsylvania offers comprehensive academic advisory services to its students



Objective

- Support and guide students to make informed academic and career choices

Topics covered

- Choosing a major
- Registering for classes
- Defining career goals

Faculty advisor

- Best resource for
 - Choosing **electives**
 - Finding **research opportunities**
 - Finding **options for graduate studies**
- **Students are required** to their advisor **twice/year**. Students are **not allowed to register without obtaining a 'permission to register' form**

Peer advisor

- Gives **student perspective** and **advice** on overall academic experience

Under-graduate assistant

- Best resource
 - Finding requirements of majors
 - Finding detailed information about the system

Under-graduate curriculum chair

- Oversees curriculums
- Excellent resource for choosing a major

Advising office

- Answers questions related to
 - Dual degrees
 - Transferring
 - Deviations form degree requirements
 - Study abroad

Source: University of Pennsylvania website

The National University of Singapore uses a holistic approach to career services catering to four groups of stakeholders

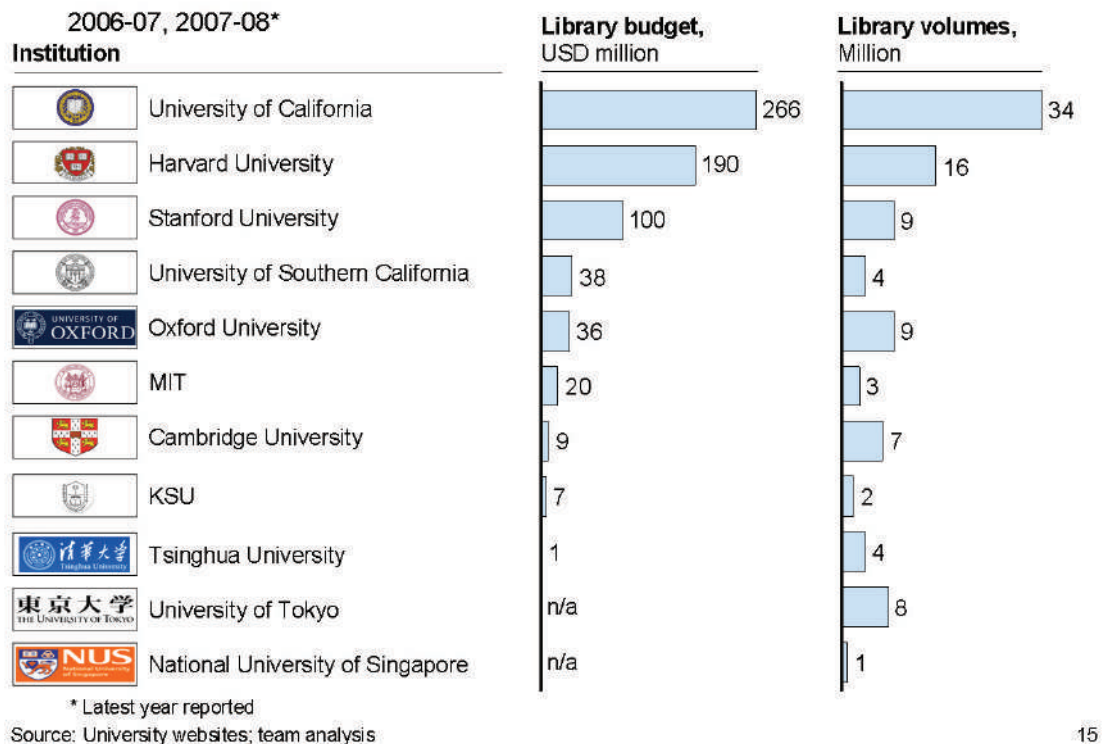


	Objective	Key efforts
Students	<ul style="list-style-type: none"> ▪ Develop self awareness ▪ Identify and develop career goals ▪ Have the tools to prepare for job search 	<ul style="list-style-type: none"> ▪ Development workshops – Focused on CV writing, interviewing and networking skills ▪ Recruitment talks – Meeting company representatives to learn about companies ▪ Career fairs ▪ Resume critique service
Employers	<ul style="list-style-type: none"> ▪ Be a partner with employers through <ul style="list-style-type: none"> – Career fairs – Recruitment talk 	<ul style="list-style-type: none"> ▪ eJob center – online portal that can be accessed for a fee with more than 1,000 companies and 10,000 resumes ▪ Career fair – annual ten-day event attended by students and alumni ▪ eCareer fair – A 1-month event for employers to intensify their search for candidates
Alumni	<ul style="list-style-type: none"> ▪ Provide career search resources ▪ Utilize relationship with alumni to provide networking opportunities with students and employers 	<ul style="list-style-type: none"> ▪ Access to all tools available to students ▪ Targeted effort to alumni to invite them to organized networking events with their companies
Faculty	<ul style="list-style-type: none"> ▪ Collaborate with faculties to enhance students career development 	<ul style="list-style-type: none"> ▪ Aims at equipping professors with the knowledge about career services to encourage students to use the available tools

Source: NUS website; team analysis

While there is only limited distinctiveness found in infrastructure, it is true that adequate student laboratory facilities, lecture rooms, libraries and computer rooms are a prerequisite for the attraction of students of high caliber and for giving them adequate opportunities. Universities spend variable amount of resources on ensuring these resources are world-class, based again on their stage of development and priorities.

Library spendings of leading universities



Finally, extracurricular activities are important parts of the student offering. While there are great variations here as well, a majority of universities financially support a diversity of student societies, including sports, subject-based, political, etc. These provide excellent development opportunities in skills that are complementary to those fostered in the purely academic setting.

Research->Environment

Beyond the quality of faculty and graduate students, high quality in research is achieved firstly through an optimal **research environment** with the right levels of support for the activity of the research in terms of resources and infrastructure. Additionally, excellent research is often done through collaboration, hence the importance of external connectivity with other universities and industry;

and of internal connectivity across departments within the institution itself.

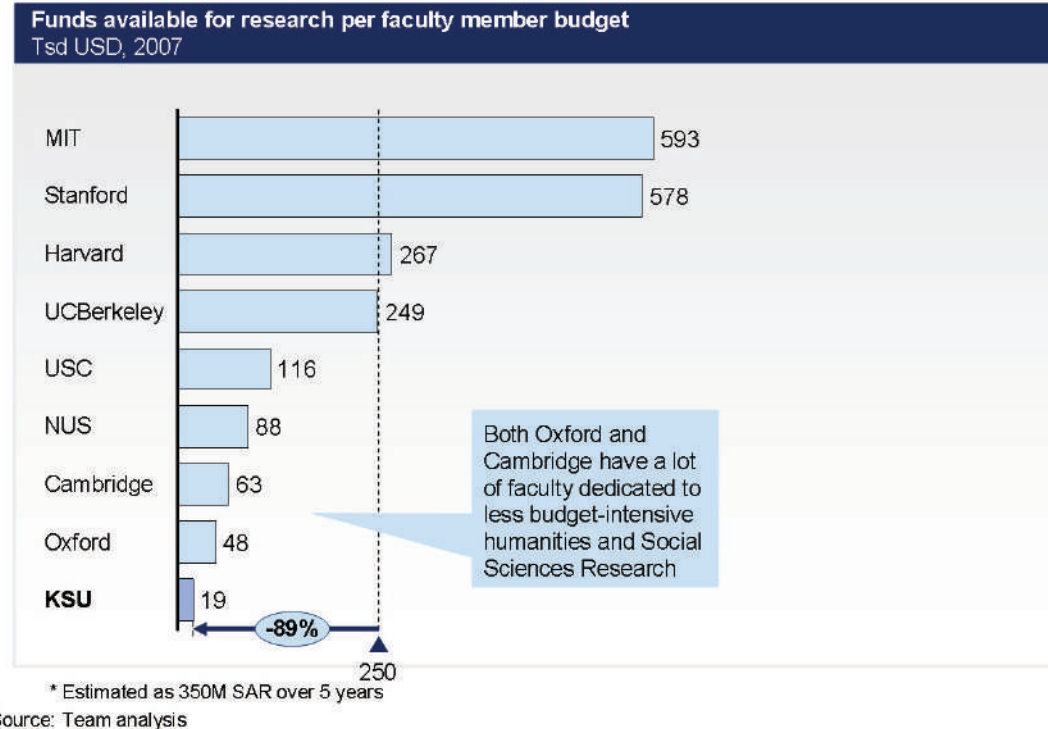
The second significant lever for the development of high-impact research is the quality of the university **graduate program**. Graduate students are typically large contributors to the research output of the university through their integration in research groups. Furthermore, they constitute the future of the institution's faculty, and are in effect faculty-in-training.

The universities benchmarked provide faculty with the right support mechanisms for the activities of the faculty through the provision of specialized resources, equipment and programs. These include:

- Analytical teams formed by high-quality technicians that help faculty in the performance of statistical and other numerical analysis.
- IT: centralized helpdesk and applications support, including specialized applications.
- Research procedures specialists: assist and coach academics in the development of research projects proposals, the editing for academic publication
- High-quality administrative assistance with travelling, scheduling, organization of conferences, etc.

World-class universities also have world-class facilities for research and faculties have access to ample research funding (of an average of \$88,000 a year).

Total available funds for research are a tenth of those of top universities . . .



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Multidisciplinary research constitutes a clear aspiration for truly innovative institutions. Stanford, for instance, has designated 4 research areas as its priority, all of them multidisciplinary, in order to produce the next set of important discoveries. Cutting-edge research increasingly requires inter-institutional collaboration; universities such as NUS have set up 8 agreements for research with other leading universities in the world in order to boost its potential.

National University of Singapore (NUS) has managed to create a network of partnerships that leverages the strengths of a number of international universities

	NUS Institution has partnered with	Purpose
Medicine	<ul style="list-style-type: none"> Duke Medical School 	<ul style="list-style-type: none"> Creation of Duke-NUS Medical School
Medical Education	<ul style="list-style-type: none"> Harvard Macy Institute 	<ul style="list-style-type: none"> Achieving best-in-class physical education <ul style="list-style-type: none"> – Development of healthcare professionals and science teachers – Series of seminars and joint research efforts
Computation and Systems Biology	<ul style="list-style-type: none"> MIT and Nanyang Technological University 	<ul style="list-style-type: none"> 'Singapore MIT Alliance' provides graduate programmes in these fields Heavily leverages remote access to MIT faculty and resources
International Economic Law	<ul style="list-style-type: none"> World Trade Institute (Switzerland) 	<ul style="list-style-type: none"> Collaboration in graduate teaching and research activities in the field of International Economic Law
Business Law	<ul style="list-style-type: none"> East China University of Politics 	<ul style="list-style-type: none"> Join Masters of International Business Law, with all students heavily exchanged between locations and full sharing of faculty and resources
Genetic and Molecular epidemiology	<ul style="list-style-type: none"> Karolinska Institutet (Sweden) 	<ul style="list-style-type: none"> Joint PhD programme leveraging both institutions – faculty and resource Yearly joint symposium, involving 30+ academics from both institutions
Southeast Asian Topics	<ul style="list-style-type: none"> Asia-Pacific Research centre (Stanford) 	<ul style="list-style-type: none"> Joint initiative to <ul style="list-style-type: none"> – Encourage high quality research and publications – 1 grant awarded a per year for an academic to spend all of his/her time in the initiative, and in both location
Logistics	<ul style="list-style-type: none"> Georgia Institute of Technology 	<ul style="list-style-type: none"> Institute of Logistics in NUS based on Georgia Tech one's Dual master's degree awarded Oldest partnership programme from NUS (started in 1998)

Most initiatives were launched starting from 2005, apart from the logistics one

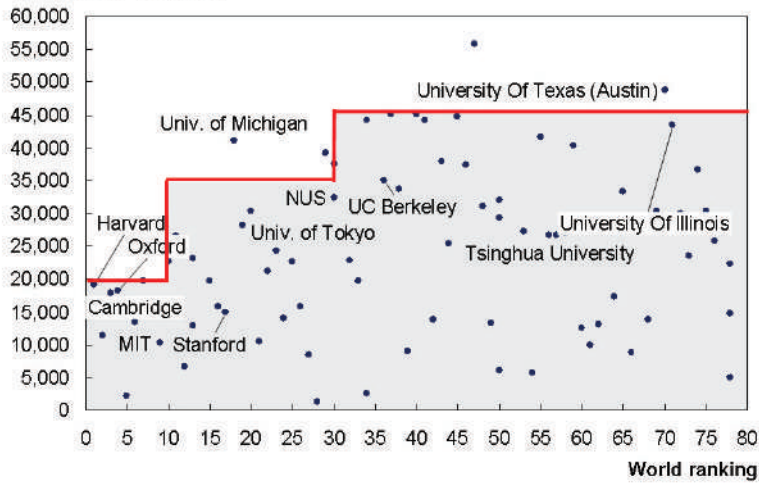
Source: NUS Web site; press clipping

Research-> Graduate Programme

Looking at the top universities as per the ARWU or the THES rankings, their graduate proportion increases with higher ranking. Research excellence is this, an integral part of what makes a university distinctive. The quality of the graduate program and its depth also allows faculty to have additional leverage, when it comes to teaching assistance and research. Increasingly, a number of institutions are shifting the focus of their graduate programs not only to train future academics, but also experts that will be worked in non-academic settings, in the industry for instance.

Leading universities, including public universities, have smaller student bodies, with few above 45,000 total students

Total student* body, 2007



- Out of the **top 10** universities, **none** have a student body **larger than 20,000**
- Out of the **top 30** universities, **only 3** universities have a student size **larger than 35,000**
- Out of the **top 80** universities, **only 2** universities have a student size **larger than 45,000**
- Generally, higher ranked universities tend to have a larger percentage of graduate students

Average undergrad-to-graduate student ratio

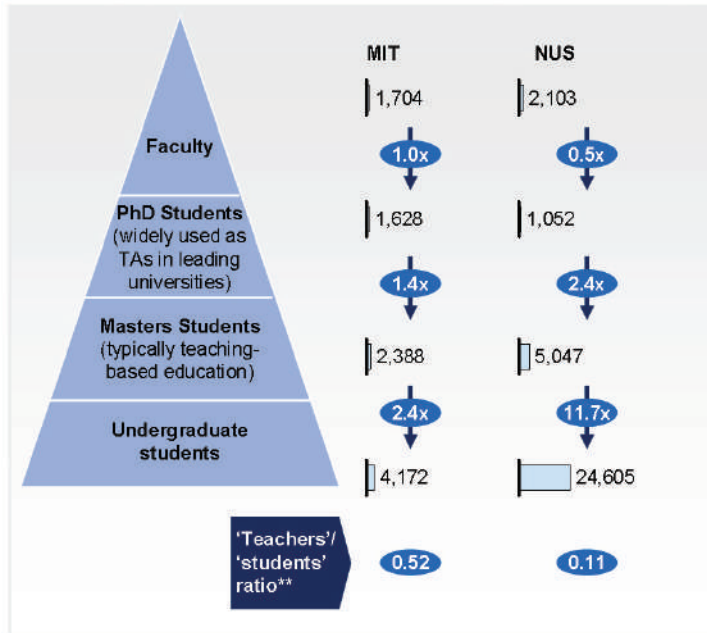


* Graduate and Undergraduate

Source: THES; US News; team analysis

Leveraging graduate students to fulfill research and teaching duties at international institutions

Relative proportion of students of different types vs. faculty, 2008



* Does not include community colleges

** Ratio of PhD students and Faculty to Master's and undergraduate students.

Source: U.S. news; California higher Education Master Plan, California Department of Education – Education Demographics Unit; team analysis

Governance and management > Governance and Leadership

Great universities are governed in a manner that supports their activity. This involves having a careful location for decision-rights, which is especially complex in the case of public universities where government can play a preponderant role in public universities governance. In addition, if the governance model is to be effective, it requires sustainable funding through diverse sources, adequate prioritization of efforts and world-class management.

Whereas there are several different models of a world-class university in terms of governance and leadership, there are certain principles that apply to all of them. Given that KSU is a public university, we focus here specifically on governance arrangements of leading public universities around the world:

- Excellent public universities have managed to excel through entering per-

formance-based agreements with their governments, while retaining internally many of the relevant decision-rights.

- The organizational structure is simpler with few reports at the Vice-Rector level. The overpopulation of administrators at the top and the government intervention often leads to the lack of dynamism in the processes of the university.
- Department and colleges have been combined to break down walls and encourage cross discipline interactions and research.

Decision-rights

There are varying degrees of centralization in universities observed, with each specific to the socio-political context of their institutions. Nevertheless, there are trends common to many of the world top-class research institutions, even in the public setting, in emerging markets. The common themes lie around the following:

- Most of the benchmarked universities, including public universities place operational decisions, such as faculty appointments, student admission level and management of research grants at the level of schools or departments.
- Strategic decisions such as budget and strategy approvals, senior leadership appointments are made at the institutional level (e.g., with the rector or institution leadership). In public universities, some of these strategic decisions lie usually outside the university at the government level of through a Board of Regents.

Level of organizational centralization across universities



- **Single overall strategy** with prioritization of research areas done at the University level
- **Funding allocated at university-level** with government influence
- Appointments and paycales **ultimately decided at the President-level** and, overseen by the government
- High-level of **discretion** for the President to enforce decisions on schools

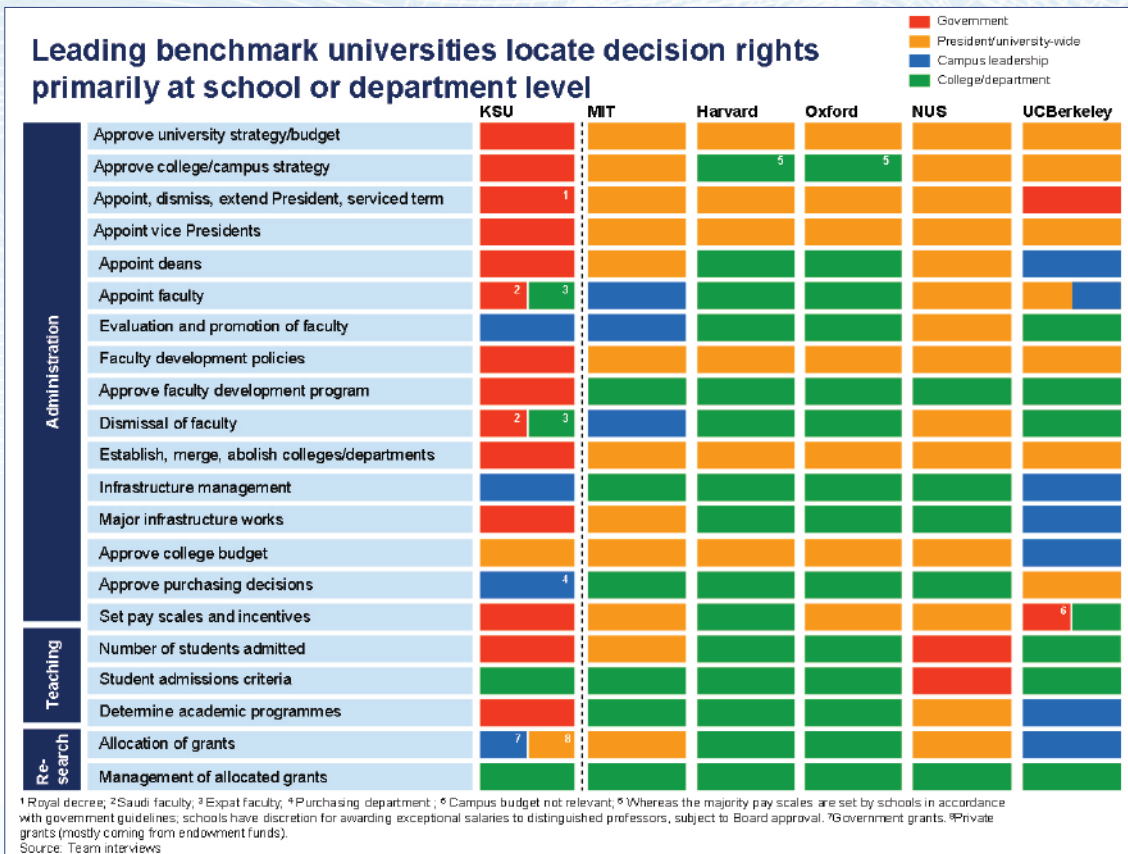
- **Schools have independent role** in academic matters
- Schools generate and keep **part of funding** while part comes from central university
- School's internal budget decisions made independently, **save for decisions considered strategic for the University** (e.g., major building)
- **Coordinated university and school-level strategies**

- **School has very independent role** relative to central university in both academic and budget matters
- School **generates funding** and makes academic decisions by itself, including appointments, promotions and paycales
- Deans **appointed** by the President
- **Independent strategies** at school level

⁵ In the case of UC, campus plays most of the role that the President would play in Stanford's more decentralized model, with System being responsible for admissions criteria and high-level distribution of funding

Source: university interviews; university websites; team analysis



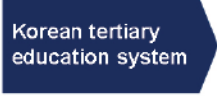
Leading benchmark universities locate decision rights primarily at school or department level



Organisational effectiveness

Benchmarked universities have few departments and fewer schools. More importantly than the number, a growing trend has emerged where several universities have broken down walls between departments and combined schools under larger umbrellas (e.g., Oxford, USC and Korean universities). The lower number of larger schools and departments enables increased interdisciplinary collaboration; increased research quality of research as the broader, larger entities have more critical mass; reduced duplication in offering and increased economies of scale by sharing elements of the curriculum and other services.

Large universities worldwide are breaking down walls between departments and combining schools under larger umbrellas








	Description	Benefits
	<ul style="list-style-type: none"> • Creation of 4 large divisions (schools) bringing together 200+ small departments • Centralization of research funding and allocation • Introduction of shared services (labs, assistants, libraries, administration) 	<ul style="list-style-type: none"> • Reduction of administrative burden at the department level • Increased collaboration between old departments, facilitating interdisciplinary research • Dedicated leadership at the school level, developing coherent strategies
	<ul style="list-style-type: none"> • Creation of areas of focus (communications, life sciences, arts, urban paradigm) combining departments around major issues relevant to Southern California and leveraging USC strengths 	<ul style="list-style-type: none"> • Increased interdisciplinary collaboration between departments and schools... • ...focused around areas of current research strengths at USC and importance for California
	<ul style="list-style-type: none"> • Preferential treatment (funding, resources) to select disciplines based on relevance for Korea's current and future needs; levels of employment and preservation of Korean heritage 	<ul style="list-style-type: none"> • Increased quality and focus on fields relevant to Korea at undergraduate and graduate levels • Reduced overall administrative burden • Higher employability of graduates

Source: Press clippings, Interviews,

These smaller set of schools and departments are also combined around a few number of broad disciplines varying depending on the history and circumstances of the university. Nevertheless, a common thread does emerge.

- Arts and Humanities are often combined with science in American universities.
- Engineering schools encompasses engineering, architecture and Computer Science.
- Medical Sciences contain all direct and allied programs.
- A unique School of Education.
- A comprehensive business school.

Universities group academic disciplines in different ways but some similarities exist across benchmarks

	 MIT	 Stanford	 Harvard	 Berkeley	 Oxford	 Cambridge	 NUS	 Tokyo	
Arts & Humanities Colleges	• Humanities, Arts & Social Sciences	• Humanities & Sciences	• Arts & Sciences	• Letters & Science	• Humanities & Social Sciences	• Arts & Humanities & Social Sciences	• Arts & Social Sciences	• Arts & Sciences	Many universities combine humanities and arts with social sciences under one faculty, while others combine them with sciences
Business Colleges	• Management	• Business	• Business	• Business	• Under Social Sci.	• Under School of Technology	• Business	• Economics	Most universities have standalone business schools
Engineering Colleges	• Engineering & Architecture & Planning	• Engineering	• N.A.	• Engineering	• Under Mathematical, Physical & Life Sci.	• Under School of Technology	• Engineering & Computing	• Engineering	In most universities, engineering is a standalone program encompassing engineering, architecture, & computer science
Health Colleges	• Health Sciences & Technology	• Medicine	• Medical & Dental & Public Health	• Public Health	• Medical Sciences	• Clinical Medicine	• Medicine & Dentistry	• Medicine & Pharmaceutical Sciences	Universities with multiple health disciplines such as Oxford typically combine health sciences under one umbrella. Others keep them separate.
Science Colleges	• Sciences	• Humanities & Sciences	• Arts & Sciences	• Letters & Sciences	• Mathematical, Physical, & Life Sci.	• Physical Sciences	• Science	• Science	Science is typically a standalone program but, in some cases, combined with arts
Education Colleges	• N.A.	• Education	• Education	• Education	• Under Social Sciences	• Under Humanities & Social Sci.	• N.A.	• Education	Many universities have standalone education programs
	• Other (0)	• Other (1)	• Other (3)	• Other (7)	• Other (0)	• Other (2)	• Other (6)	• Other (2)	

Source: University Websites, team analysis

Top team organization

For administrative leadership, most universities benchmarked have created specific positions at the level directly underneath the rector (n-1 level) such as a Provost, a Treasurer, a PR Manager, a Resource Development Manager and a General Counsel (Legal affairs). Additionally, depending on their strategic priorities, universities adapt their organizations to their goals through the creation of other dedicated positions.

Certain leadership functions are common across universities

Legend: ■ Common to most universities; ■ Common to some universities

MIT	Harvard	Stanford	NUS	Function
President	President	President	President	<ul style="list-style-type: none"> Provide direction to the university to achieve its teaching and research mission
Provost	Provost	Provost	Deputy President & Provost	<ul style="list-style-type: none"> Set educational policies and oversee academic faculties and programs
EVP & Treasurer	VP Administration	VP Business Affairs & CFO	Deputy President Administration	<ul style="list-style-type: none"> Oversee administrative (and financial) functions to support teaching and research
	VP Finance			<ul style="list-style-type: none"> Set financial policies and administer university finances
	VP HR	VP HR		<ul style="list-style-type: none"> Develop, implement, and manage HR policies and procedures
		VP Land & Building		<ul style="list-style-type: none"> Oversee university land resources and large infrastructure projects
VP Institute Affairs	VP Gov't & Public Affairs	VP Public Affairs	VP University & Global Relations	<ul style="list-style-type: none"> Promote the image of university through internal and external communication
VP Resource Development	VP Alumni Affairs & Development	VP Development	VP Endowment & Development	<ul style="list-style-type: none"> Drive private fundraising to support research, teaching, and strategic priorities
President MIT Management Co.	CEO Harvard Management Co.*	CEO Stanford Management Co.		<ul style="list-style-type: none"> Oversee management of the university endowment fund
EVP Alumni Association		President Alumni Association		<ul style="list-style-type: none"> Build relationships with alumni and engage them in fundraising
VP & General Council	VP General Council	General Council	VP & General Council	<ul style="list-style-type: none"> Provide counseling and advice to university on legal matters
	VP Policy	AVP Strategic Planning		<ul style="list-style-type: none"> Support president in shaping and implementing university vision and strategy
Other	Other	Other	Other	<ul style="list-style-type: none"> Functions that are specific to each school

* Reports to the Harvard Board of Trustees
Source: University websites; team analysis

Beyond the specific administrative positions aligned with university priorities, benchmarked universities tend to manage the span of control of their leadership maintaining less than 35 reports at the n-2 levels.

External stakeholder involvement

With regards to the external stakeholders, the situation is different for public and private universities. The most relevant stakeholder for public universities is the government. The role the government plays ranges from that of a funder (through the provision of per capita funding per student) to that of a tight controller (e.g., deciding on the appointment of the president and senior leadership) across the different models for public universities. Nevertheless, most high performing universities have obtained a significant degree of autonomy from the government (e.g., fund allocation, personnel decisions).

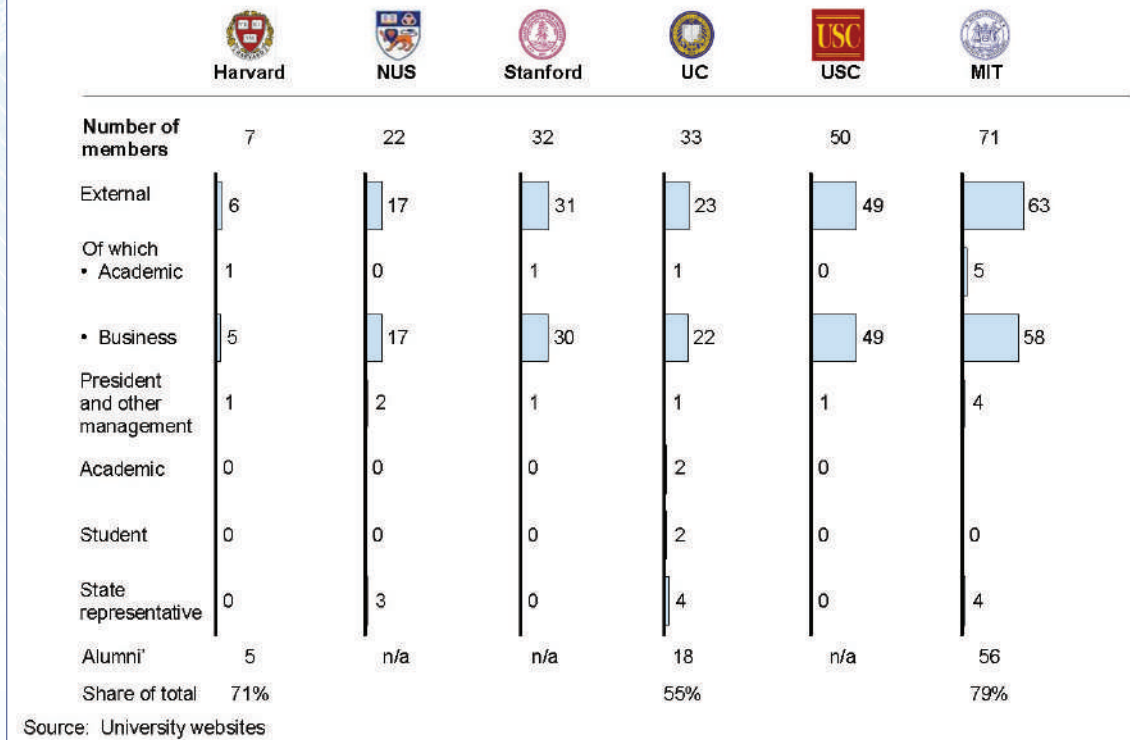
Several public universities including Tokyo University and NUS have followed a gradual path towards gaining autonomy from the government. In the case of NUS, this involved a gradual path starting in 1991 when they were very much an integral part of the government to a full corporatization in 2006. The increased autonomy has also been coupled with greater levels of accountability through a performance contract.

The involvement of other non-governmental external stakeholders is increasingly relevant for universities, as they try to increase their relevance for society at large, become more interweaved with employers, have external oversight upon their management or raise additional funding.

Leading universities (including public) typically are governed by boards (trustees or regents) or similar entities with members who in a majority of cases are external to the University, typically business or academic leaders. In the case of public institutions, they are often known as Board of Regents, but have limitations in their effectiveness due to the political nature of their nominations.

Other ways of engaging external stakeholders include the set-up of advisory boards at the institution or faculty level which, while not being decision-making bodies support other aspects of the universities' activity including developing curricula in order to make students more employable and bringing research closer to industry needs.

External members are typically business or academic leaders, many of whom are alumni of the university



Governance and Management->Funding and resources

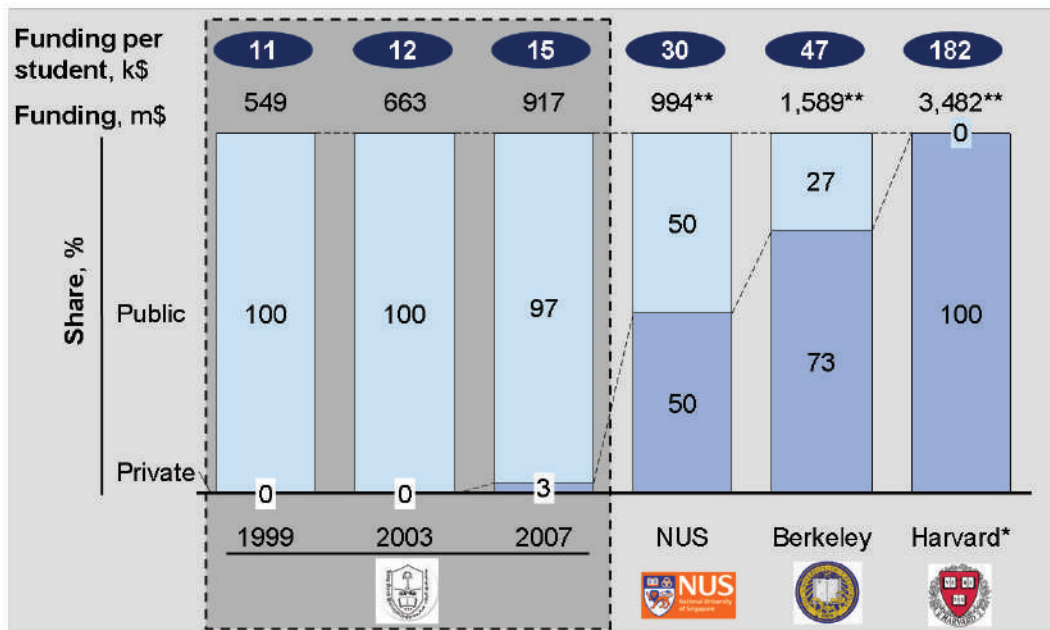
In order to support the operations of the University, great universities have developed solid economic foundations of their own that enable them to have a diverse, stable and flexible funding source. UC-Berkeley, for instance, despite its public status, is able to consistently have 73% of its funding coming from private sources. Virtually all leading universities have developed an endowment, attracting donations from alumni and other donors, which ensures enduring and flexible sources of funding. There are common threads in top universities along the following 3 dimensions:

- Sources of funding.
- Organizational model for funding.
- Funding allocation.

Sources of funding

Research-intensive universities, including public ones currently have a mixture of public funding and private funds (>50% for both Berkeley and NUS).

Benchmarked universities today receive the bulk of its funding from private sources



* Does not include funding for specific sponsored research projects given by public institution

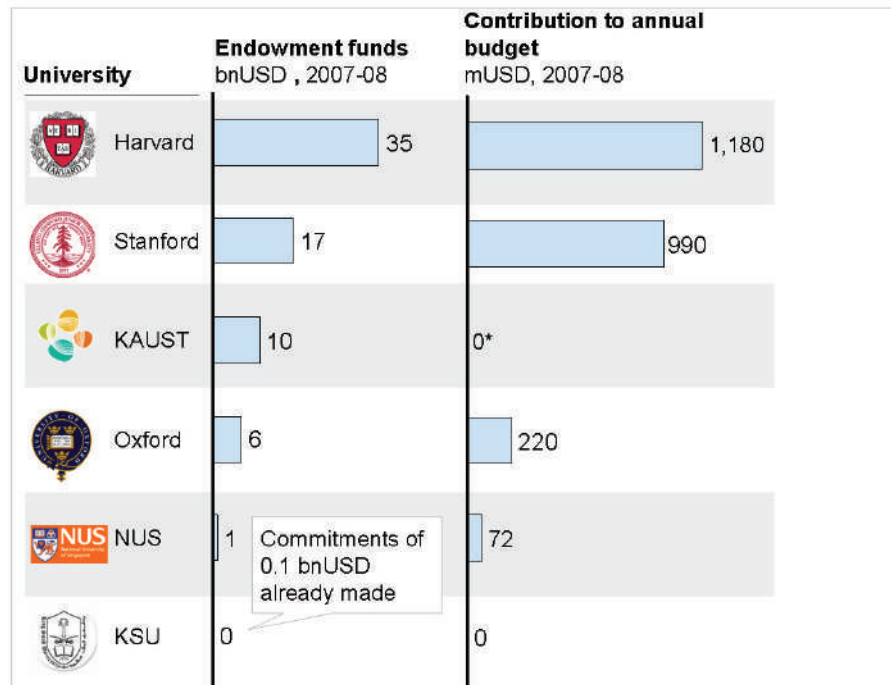
** 2007-08

Source: Universities' Annual/Financial Reports; KSU budget report; team analysis

These private funds come from a variety of sources, including gifts, endowment returns and contracted research. In particular, and in order to convert their fundraising efforts into funds that provide a steady and stable source of funds over time, universities around the world have developed very significant endowments (of up to \$35 billion in the case of Harvard), which they typically raise through a combination of centralized and faculty-level entities and which they manage through independent companies that provide the returns of their investments to the university.

Whereas endowment-building has been a common activity for some time in the US in line with wider cultural philanthropy, this practice is now spreading worldwide.

Leading universities have developed a substantial endowment



* Contribution pending beginning of operations

Source: Stanford Annual Report; Harvard Fact Book; Oxford Annual Financial Report

Funding management

Leading universities have a single development office responsible for institutional fundraising to ensure alignment, focus and strong coordination across its different fund-raising activities. However, in universities with a high degree of decentralization, the different schools, programs and departments are also active in fundraising efforts which can be a means of involving faculty in fundraising or tapping a significant allegiance of alumni and the public to the schools rather than the university.

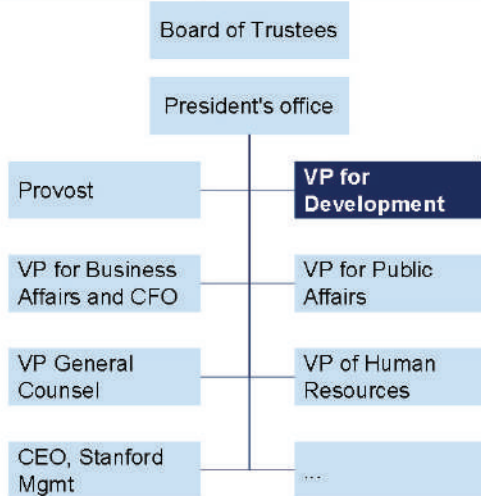
Leading universities have a single development office responsible for institutional fundraising to ensure alignment

EXAMPLE:
STANFORD



Active in fundraising

Organizational overview



Overview of Development Office

- The Vice President for Development is responsible for planning, coordinating, and managing the gift procurement programs of the University for both current use gifts and contributions to the endowment fund.
- It works closely with the President, the Provost, and the Deans to define the fundraising requirements of the University and implements those programs
- It has 4 Assistant Vice Presidents responsible for
 - Major gifts
 - The Stanford Fund
 - Foundation relations
 - Campus wide multidisciplinary initiatives

Source: University website; team analysis

Nevertheless, In order to oversee their endowment, nearly all universities have created independent management companies where the universities have limited say on the management of assets, beyond the setting up of the structure and policies. Endowment management companies are usually sophisticated asset managers with some of the highest returns and are able to generate between 10-17% annual return on their investment, with 6% on average dedicated to funding projects and the rest re-invested in the fund itself.

Leading universities have legally independent management entities overseeing the management of funds

Harvard Management Company – Profile



- Role – Manages Harvard's endowment assets, pension funds and charitable Trusts
- Total assets – \$25.5 billion, as of 30 June 2005
- Percent of assets managed internally – 50%
- Number of employees – 175
- CEO – Dr. Mohammed El-Erian

Harvard Management Company's (HMC) investment strategy

- Jack Meyer, appointed CEO in 1990 undertook development of an investment strategy when he joined HMC
- Key activities included
 - 8 months of discussion with Harvard University about its returns, goals and risk tolerance
 - Discussions with investment professionals and consultants regarding realistic returns, risks and correlations for major asset classes
 - Benchmarking of other universities' endowment funds
 - Creation of optimisation model based on above input to create the 'policy portfolio'

Source: TIFF Education Foundation; press search; team analysis

Allocation of funds



Fundraising efforts are often targeted around specific projects built around areas of allocation. Two key trends emerge in fundraising allocation:

- The development of needs or merit-based scholarships.
- The targeting of funds at priority areas of teaching and research.

Leading private American universities are developing large scale funds to assist every undergraduate student who is of sufficient caliber to enter the university, but may not be able to afford it. At the same time, graduate students' tuition, widely available, is based on merit alone. Additionally, as universities try to make themselves relevant to the society around them and the wider

Higher Education landscape becomes globally competitive, they are specializing in a reduced number of priority areas in which they can become distinctive. For instance, Stanford launched the Stanford challenge to support six core initiatives ranging from human health, to K-12 education and encouraging overall interdisciplinary research areas.

Most universities allocate their student financial aid based on financial need or merit

	Description	Global trends
	<ul style="list-style-type: none"> All financial aid to undergraduate students is based on need determined by family income <ul style="list-style-type: none"> If parents' income is below \$60,000 no contribution to tuition or room & board is needed If parents' income is below \$100,000 they don't have to pay for tuition Student's contribution low enough that no loans are needed For graduate students additional option to apply for grants based on merit 	<ul style="list-style-type: none"> Offers all qualified students option to study at top-universities independent of their parents' income. There are up to 50% of students receiving financial aid Using endowment of alumni, companies and foundations to contribute student's tuition, esp. for undergraduate, so that parents only need to pay if their income is very high. Overall decrease of student's contribution to tuition
	<ul style="list-style-type: none"> All financial aid to undergraduate is based on need determined by family income. Student's contribution accounts for 8% of nominal tuition For graduate students financial aid allocation according to same principles as for undergrads and additional option to apply for grants based on merit 	<ul style="list-style-type: none"> Moving from tuition being source of funding towards budget neutral position

Source: Stanford Financial Aid Handbook; Stanford Annual Report 2007; Harvard Financial Aid Office; team analysis

Although substantial differences exist across high-performing and fast-improving universities, common threads to exist around the concept of performance and quality measurement. This is not only reflected in rankings but also in the mission a university aims to accomplish. Excellence should really be measured in the context of needs of the country, not the context of a ranking. In any case, rankings always reflect excellence in the status quo, and a university seeking to jump out ahead to the future will not be recognized in today's world, but rather in tomorrow's evolved world. Learning from today's successes, but also understand the greatness will have to be built on some unique competitive advantage will only enable university to harness the right creativity to exploit that advantage.



Diagnostic of KSU's current performance »



3. Diagnostic of KSU's current performance

As KSU prepares to embark on its ambitious journey, it must thoroughly understand the starting point for its journey and how its current performance will affect the way forward. With this in mind, in this chapter we focus on drawing up an assessment of KSU's **outcomes and inputs** and using this as the basis for developing a compelling case for change. This approach is in line with the National Commission for Academic Accreditation and Assessment report for KSU, which states that "criteria for assessment must include inputs, processes and outcomes with a particular focus on outcomes".

Over the last few years, KSU's outcomes have improved significantly as demonstrated by a confluence of events:

- A number 1 ranking in Asia in the Webometrics rankings, measuring the university's extensive web presence.
- Extensive amount of support from its very influential alumni community, evidenced by KSU's ability to raise over USD 1 billion endowment in the Kingdom, a first in the history of any institution within the country and region.
- 86% of KSU alumni believe that they emerge with strong hard skills (core subject knowledge) upon graduation, serving them well in the job market.
- A momentum around accreditation, and the sense of openness and collaboration between KSU colleges and departments (mentioned over 20 times in the SWOT workshops with faculty) during the accreditation process.

There are nevertheless several reasons why KSU must continue striving for excellence over the coming years, as the diagnostic findings outline.

SWOT Workshops

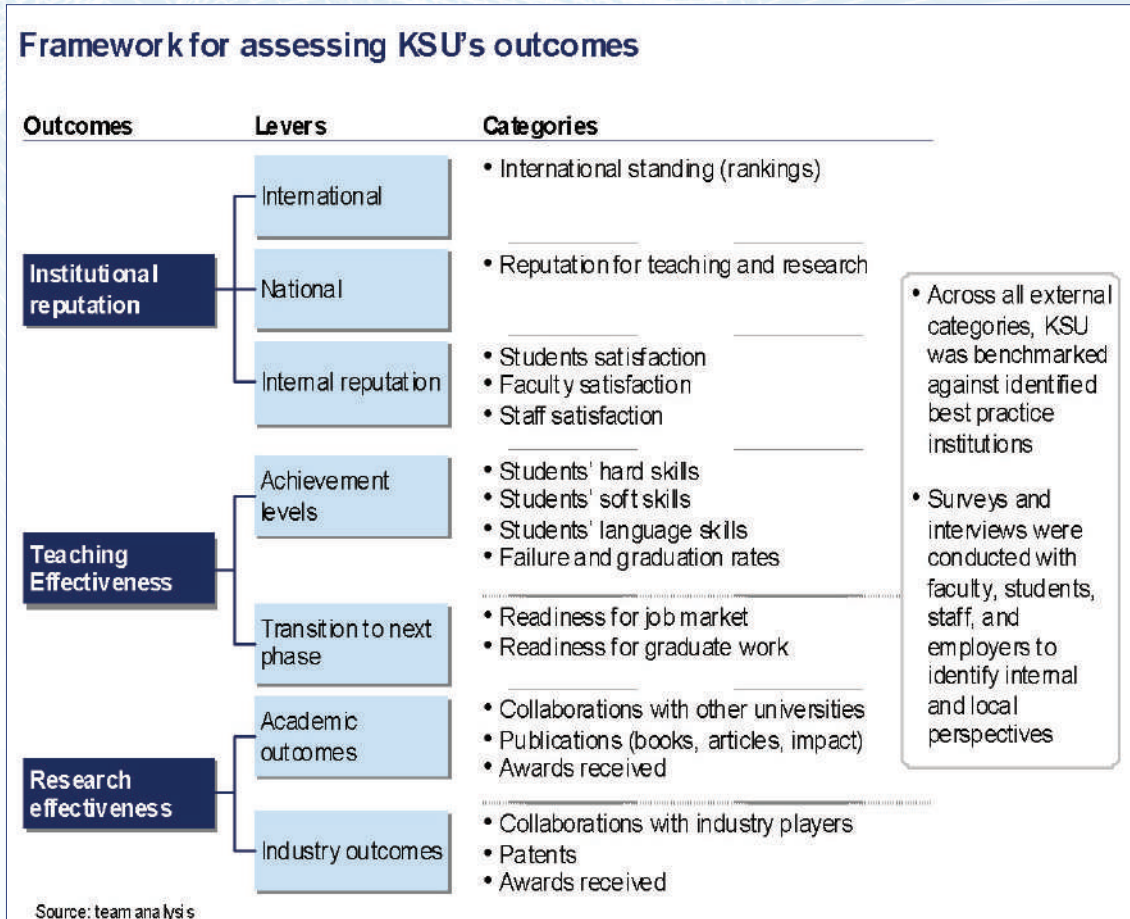
As preparation for the detailed diagnostic, the Strategic Planning Committee ran several SWOT workshops with university leadership, teaching commit-

tee, alumni, students and staff, in both the men and women's campuses. The SWOT workshop revealed that a common thread ran through the responses of all stakeholders.

- **Strengths:** These included strong government attention to KSU and financial support; an esteemed reputation built on a long history as the premier university of the Kingdom; a large and highly qualified Saudi faculty; a wide range of undergraduate fields for specialization; and leadership determined to promote and improve the university.
- **Weaknesses:** These included a large number of students resulting in unwieldy processes; a mismatch between staff positions and skills; cumbersome administrative processes and bureaucracy; outdated teaching methods and curriculum; and a severe lack of research funding and infrastructure, particularly on the female campus.
- **Threats:** A steady stream of staff and faculty moving or looking to move to other institutions or the local private sector; a lack of deep relationships between KSU and external institutions; a mismatch between what the market needs and what graduates are taught; and the emergence of global higher education institutions in the region.
- **Opportunities:** These include a propitious financial environment to support KSU's drive for an endowment, strong partnerships with private sector, and several scholarship programs for graduate students.

With this foundation in place to frame the strategic planning exercise, a comprehensive diagnostic was launched in summer 2008 to examine KSU's performance along the outcomes and inputs framework.

Outcomes.



A university's quality manifests itself in three main outcomes: institutional reputation; teaching effectiveness; and research effectiveness. The following section examines KSU along each dimension.

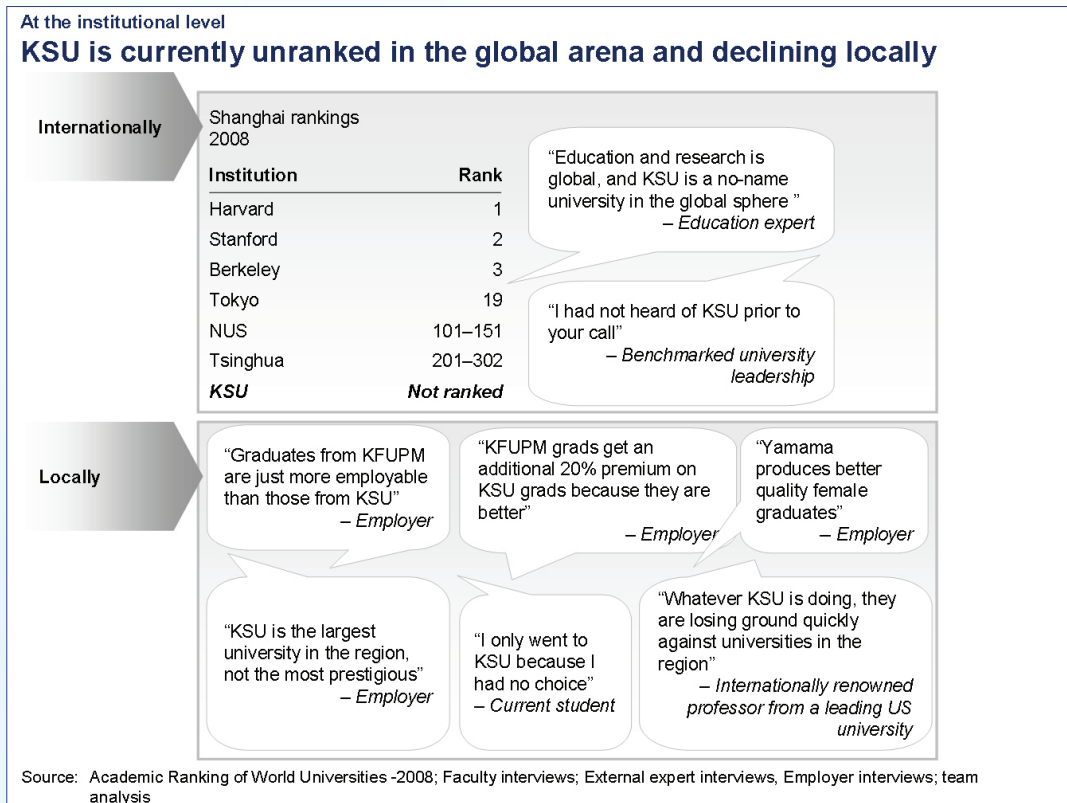
Institutional reputation

At the international and national levels, KSU can improve its reputation for teaching and research. Although it has achieved 292nd ranking (1st in Asia) on the Webometrics ranking (measuring the depth of a university's web presence), KSU is currently unranked in the most comprehensive international rankings of higher education quality (Shanghai, Times Higher Education).

Locally, interviews private and public sector leaders reveal that KSU gradu-

ates are facing increased competition in engineering and business from local institutions such as King Fahd University of Petroleum and Minerals. Most of these stakeholders indicate that KSU's reputation for higher education excellence in the Kingdom has declined over the years as it has had to contend with greater pressures on student enrollment, budget constraints, faculty recruitment, etc. These same stakeholders nonetheless have strong goodwill towards KSU, and aspire that it play an iconic role in reshaping the higher education landscape of the Kingdom over the next 20 years.

Internal **satisfaction levels** are low. An overwhelming majority of students (71%), faculty (61%) and alumni (59%) surveyed feel the university has an average to weakening reputation. In addition, 43% of faculty, 26% of students, and 42% of staff are dissatisfied with their experience at KSU. Nonetheless, despite these feelings of dissatisfaction, the vast majority of faculty (98%), students (83%) and staff (91%) feel pride for KSU's heritage. In short, while KSU's internal stakeholders truly care about their institution, they face daily administrative and academic challenges that cause concern about how KSU can deliver the teaching and research quality that it aspires.

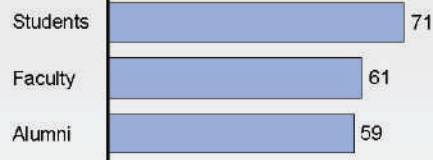


At the institutional level

KSU is poorly perceived by faculty, students and alumni alike

Reputation

% of respondents answering 'average' or 'weak'



"Recruitment of graduates from KSU has been a failure"

"I'd prefer sending my kids anywhere but KSU"

– Employer

"I am proud of KSU because of its history, but no because of its present"

– Alumni

"KSU is not what it used to be, it has lost a lot of ground"

– Alumnus

"When I go to conference, people don't even know what KSU is"

– Faculty

"KSU is not a good school anymore"

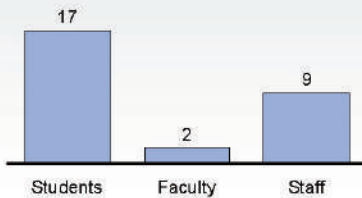
– Employer

Source: 2008 faculty survey – Launched November 20th (n=1001); 2008 Student survey – Launched November 20th (n=830); 2008 Alumni survey – Launched November 20th (n=82); Interviews; team analysis

Pride and satisfaction of KSU students, faculty and staff

Pride

Percent of respondents disagreeing to the question "Are you proud to be at KSU?"



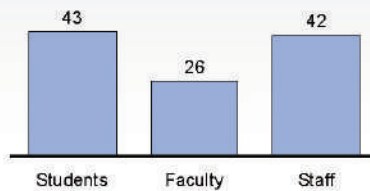
"I am proud of KSU, and it will become a great university again" - *Student*

"KSU can still be considered the best in the Kingdom, all the major decision makers are from this university" - *Faculty*

"I am proud of KSU and the new Rector especially" - *Staff*

Satisfaction

Percent of respondents answering no to the question "Overall, are you satisfied with your experience at KSU?"



"I came to KSU because I was told its great, but the faculty treats us poorly, the staff doesn't care about us and I am truly unhappy" - *Student*

"I am not sure why I am still at KSU; I think I am risk averse, but this is not a great place to be" - *Faculty*

"KSU's environment is terrible, it's dead. Compare it to the universities in the West, the environment for teaching is so much worse here" - *Dean*

* based on 747 students, 557 faculty and 450 staff survey respondents
Source: KSU survey; interviews, team analysis

Teaching effectiveness

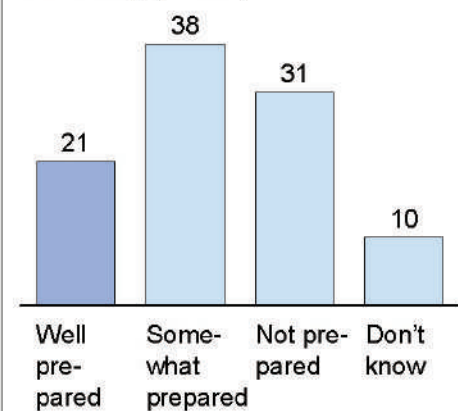
KSU's graduation rate is low relative to international institutions, with a high frequency of failure for early tenure students. A majority of respondents in surveys⁵ and interviews also pointed to a lack of readiness to enter the market place, particularly due to a lack of practical experience, and weak language and soft skills. The SWOT workshops we conducted strengthened this assertion, highlighting concerns raised by alumni about the lack of readiness when it comes to language and computer literacy skills. Additionally, interviews with alumni, students, faculty and employers clearly also pointed towards the lack of **readiness to enter the marketplace** or even to pursue **graduate studies**.

- 69% of faculties feel KSU students are only somewhat prepared or not prepared to enter the market place. Similarly, 65% of KSU alumni feel that they were not prepared for the job market.

Only ~20% of faculty believe that the students are well prepared for a successful work life after leaving KSU

Are students prepared for a successful work life

% of faculty (n=557*)



Our students lack so many basic skills that are needed for employment

The students can't think for themselves. We have to spoon feed them. This will be a challenge in the work life

Our students have a problem in English and soft skills. It will be a problem for them after graduation

The skills that KSU teaches are different than that the skills that the work life demands

KSU needs to embed dynamic soft skills more so our students can succeed at work. Currently that is not the case

* This includes the partially completed surveys and the completed 265 faculty surveys;
Source: KSU survey; team analysis; interviews

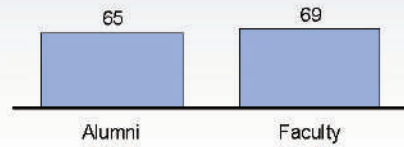
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- 86% of alumni feel that they have strong core knowledge and **hard skills** upon graduation, serving them well as they search for employment in the job market
- Nevertheless, these same KSU alumni **unanimously** perceive themselves as lacking **soft skills** upon graduation. 70% of KSU alumni perceive that they lack practical experience and skills when they enter the job market, 43% indicate a lack of oral communication skills, and 30% a lack of written communication skills.
- Finally, 62% of KSU alumni perceive themselves as having **poor English language skills** upon graduation. As the world globalizes, these graduates have to compete with both local and international students, and their lack of English skills significantly hinders their ability to find quality employment in high demand fields.

Readiness to enter the job market and level of soft skills

Readiness to enter job market

Percent of respondents agreeing that students are not well prepared to enter the market place



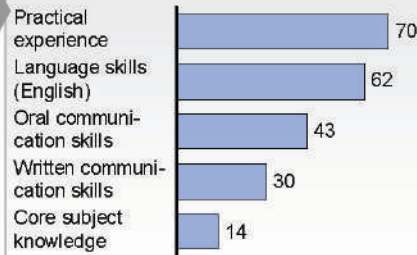
"The education at KSU is not designed to prepare for the job market"

"KSU must recognize that it is graduating a person, not a book"

"1 year at a training center was more useful than 4 at KSU"

Level of soft skills

Areas where alumni perceived a lack of skills



"They have never worked in a team, and they don't know how to do it"

"The problem at KSU is skills . . . students just don't have them"

"English is key, and KSU graduates can't put a sentence together"

Source: 2008 faculty survey – Launched November 20th (n=1001); 2008 Student survey – Launched November 20th (n=830); 2008 Alumni survey – Launched November 20th (n=82); Interviews; team analysis

As further validation, KSU's accreditation report states that "a priority to considerably strengthen the quality of learning and teaching (...) is to make all curricula responsive to the needs, professions and to the expectations of a modern knowledge society". The SWOT workshops reinforced this sentiment, where faculty, students and alumni alike believe 'market relevance' to be a core improvement area for KSU's teaching agenda.

Research effectiveness

Research effectiveness can be broken into two separate types of outcomes: those related to **academia** and those related to **industry**. These outcomes highlight the important role of external perspectives in assessing whether KSU delivers quality and relevance in its research outputs.

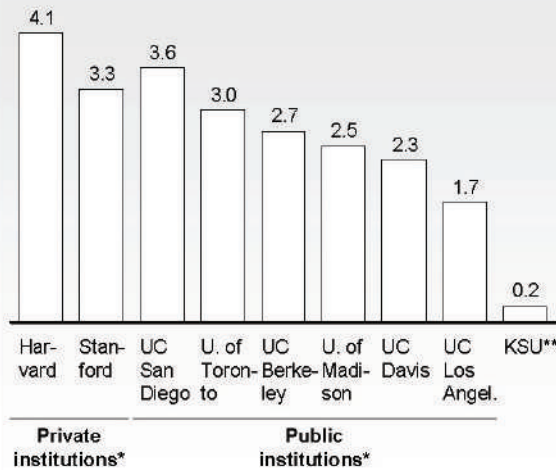
Beginning with academic outcomes, KSU can improve its performance. While

individual exceptions exist, The KSU faculties on an average have few publications and citations relative to benchmarks. KSU's faculty produces fewer publications (0.2 publications per faculty) than benchmark universities (2-4 per faculty member), and have only 2.9 citations per paper (relative to 7-14 at benchmark universities).

Quantity and impact of research at KSU is below that of major universities

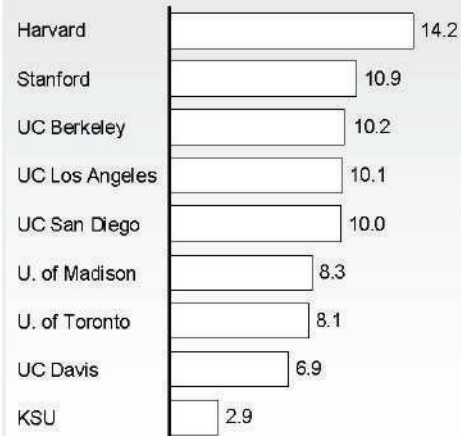
KSU faculty publish less than their counterparts in leading universities . . .

Annual number of publications per faculty



. . . and their publications have less impact, as evidenced by the citations they receive

Average number of citations per paper***



* Average number of papers per year (2003-2007 period) divided by number of faculty in 2007; only Thompson indexed publications

** Average paper per faculty for period 2005-2007; all publications

*** Total number of citations divided by total number of papers for period 2003-2007; only Thompson indexed publications

Source: KSU Annual Report; Institute for Scientific Information; university reports; team analysis

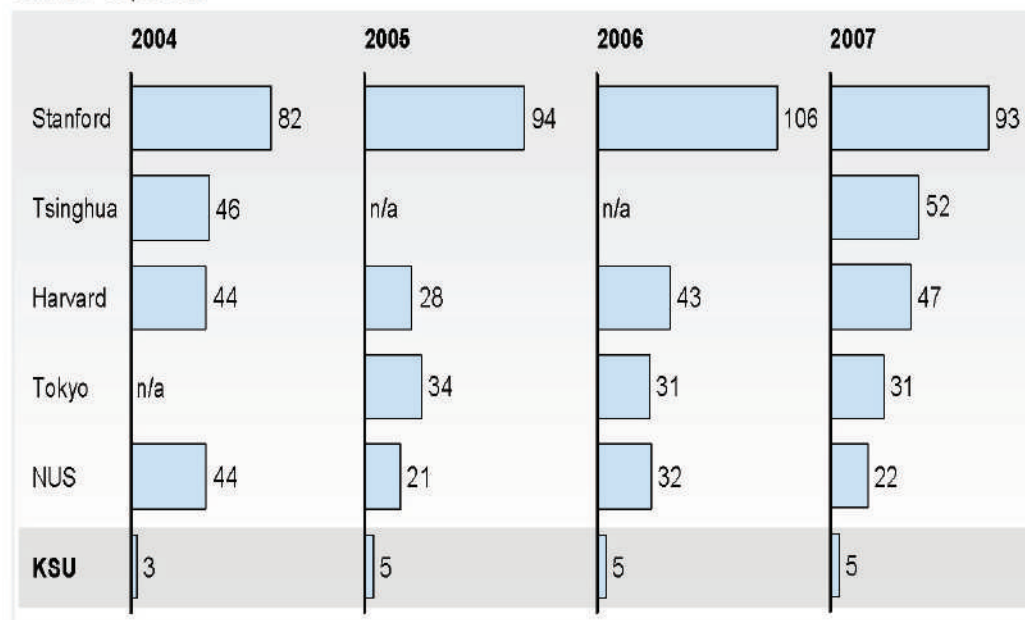
The SWOT workshops all highlighted the fact that despite a concentration of quality Saudi and non-Saudi faculty at KSU, their research output was below-par. KSU faculty highlighted root causes during the SWOT workshops as well, including a heavy teaching load, poor financial and support environment for research, large administrative burden, and poor links to external institutions (we analyze these variables later in this chapter).

Nevertheless, with the number of twinning programs that the University is putting in place (over 30), there is clearly potential to leverage these relationships to raise the quality of research and build research capabilities at KSU. These twinning programs will allow KSU to increase its international presence, leveraging best practices and capacity internationally. By establishing international campuses (e.g. University of Toronto), KSU will, in the short term, increase capacity and leverage best practices in those institutions. The relationship with the University of Toronto, for instance, will allow KSU to establish a remote laboratory with the support of a world-class, recognized institution where faculty from both schools will interact and contribute to the research excellence of the University.

As far as the **industry outcomes** are concerned, their performance can also be improved: In effect, KSU's faculty produces fewer patents annually (less than 5 annually) than international benchmarks set by universities in both developed and emerging economies (between 22 at NUS to 158 at MIT annually). Recent efforts to create a unified patent program will be supportive, allowing the university and the Kingdom as a whole to have clear and consistent patent regulations.

KSU patent registrations lag other universities

Number of patents

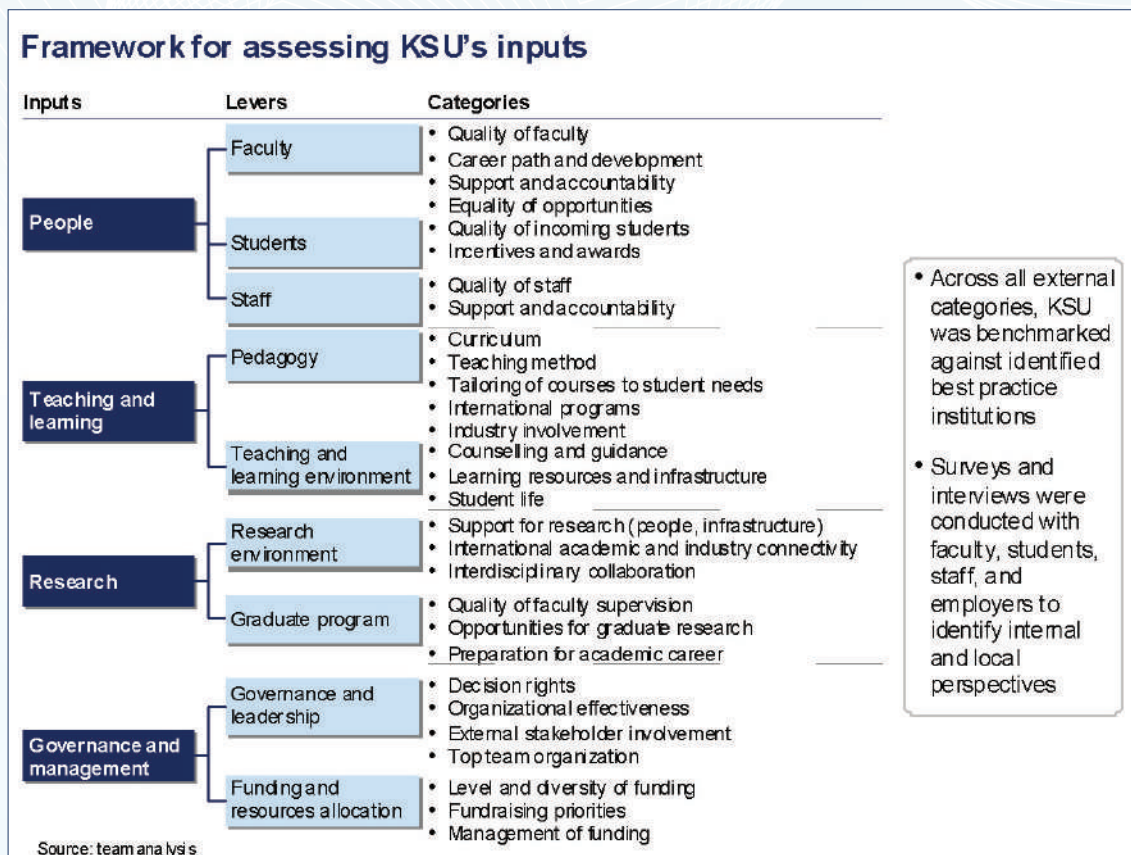


Source: Singapore office of patents; press reports; KSU annual report; Tokyo University website

In summary, KSU's outcomes in institutional reputation, teaching effectiveness, and research effectiveness can be improved to better match the expectations of the most prestigious and largest university in the region. Stakeholders are unanimous that doing so will enable KSU to play a tremendous leadership role for the greater good of the Kingdom.

Inputs

Setting the right internal conditions in a university facilitates successful outcomes. To this end, we examined the following four input dimensions:



- **People** – A university is only as good as its faculty, staff and students are. This dimension covers faculty, students and staff across quality, development and accountability dimensions.
- **Teaching and learning** – This is the heart and soul of any educational institution. This dimension reviews the current state of the pedagogy, and the

teaching and learning environment.

- **Research** – Fostering quality research requires a supportive environment, faculty and infrastructure that ensure collaboration across disciplines and geographic boundaries, and adequate amount and quality of graduate student support.
- **Governance and Management** – The organization, structure, governance, and funding of a university are critical to its smooth operation. A lack of clarity often leads to the loss of accountability and bureaucratic processes for students, faculty, and staff; and, the lack of sufficient funding results in suboptimal investment in teaching and research excellence.

The section that follows describes KSU's performance along each of these dimensions in turn.

People → Faculty

KSU has over 5,000 full-time faculties, of whom ~65% are Saudi. No educational institution in the Kingdom can boast a larger concentration of local talent than KSU. Moreover, KSU has the highest concentration of Western-trained faculty in the Kingdom.

However, students and alumni poorly perceive KSU faculty at present. Specifically, alumni are dissatisfied or extremely dissatisfied by the overall education received (59%), teaching style (76%) and overall quality of faculty (45%). Current students highlight good quality of teaching (75%), but a minority express praise about faculty dedication to teaching (34%) and teaching effectiveness in transmitting skills or knowledge (39%). Improving the quality of faculty and their instruction is therefore fundamental to raising KSU's reputation with students.

The root causes of this sub-optimal performance lay largely around four major dimensions:

- Ability to recruit quality faculty;
- The level of support provided to new and tenured faculty to achieve quality

teaching and research outcomes;

- The process by which KSU manages performance and ensures the accountability of its faculty;
- The access to development, research, leadership and reward opportunities.

1- Ability to recruit quality faculty, KSU has difficulties generating interests for its postings (less than 5 applicants per posting vs. 20 at NUS). The salaries and benefits offered are often 50% lower than those offered by benchmarked universities, while the time allocated to research is low (16%) when compared to benchmarked institutions (30% at MIT, 37% at Berkeley). The majority faculty's time is spent is teaching (40%) and administrative tasks or consulting efforts (44%). The SWOT analysis conducted with faculty further suggests that expatriate faculty is particularly by KSU's offering.

KSU's current recruiting process suffers from several deficiencies:

- Hiring priorities are based on teaching needs, created either because of a new course or the retirement of a faculty member. They do not take in account areas of priority for the school, nor the need for a research agenda. The SWOT workshop with faculty highlighted the lack of clear recruitment policies and procedures.
- Job postings, once approved by the Ministry, are communicated to departments within KSU and other Saudi universities, and are mostly limited to local advertisements. As such, a small pool of potential candidates is made aware of the posting. Ideally, KSU would proactively reach out to relevant faculty from around the world for the posting.
- The applications are most often assessed by a department committee that has limited transparency on the overall recruiting process, and whose main criteria for selection is based on the undergraduate studies record (GPA>3.75) and research portfolio. Although most hiring is done based on the teaching needs of KSU, teaching experience is not a criterion for selection. Additionally, formal interviews are rarely conducted to assess the candidates' fit with the University.
- Once candidates are selected, there is little active follow-up to ensure that the

selected candidates will actually join KSU.

Strategic implication for KSU: *KSU should implement internationally accepted best practices in recruiting, and adopt temporary measures to attract visiting faculty in order to support current Saudi faculty, particularly those who are junior.*

In addition, KSU's current entry-level salaries are 20-50% lower than the average salaries offered by the top Universities for Saudi faculty. Expatriates' salaries can be an additional 30% lower depending on the college. Benefits such as housing and meal allowances are not available to KSU faculty, a common practice in institutions worldwide. The low salary was also a commonly cited reason in the SWOT workshops for the lack of competitiveness when hiring faculty at KSU.

The new Saudi faculty incentive will help close the compensation gap, but it has not taken into account the following dimensions:

- Salary increases and bonuses are not pensionable;
- Faculty is not provided with the right support, infrastructure as well as the overall environment and infrastructure for achieving high quality research and patents;
- Even if all the incentives are achieved (which would be rare), the offer still falls short by 15% compared to international standards;
- The incentive scheme does not provide adequate perk packages;
- The minimum teaching load required for being eligible for the teaching portion of the bonus at 14 credit-hours is too high to support quality research, representing between 30 - 40 hours of teaching and preparation every week
- Non-Saudi faculties are not eligible.

Strategic implication for KSU: *KSU should institutionalize internationally competitive compensation, leveraging the new incentive scheme.*

2- The level of support provided to new and tenured faculty to achieve quality teaching and research outcomes is low. Junior faculty is often left to its own devices, with a heavy teaching load and no formal mentors to support this important transition in their careers. Despite the creation of a Skills Development Deanship that provides seminars to faculty, there is still much to be done to systematically support faculty with appropriate mentoring. For example, benchmark universities engage in the following practices:

- Oxford, MIT and NUS provide their faculty with start-up funds to build their capacity and capabilities; acquire relevant books, journals, and basic equipment.
- New faculty at benchmarked universities such as Oxford, Harvard and USC provide compulsory teacher training at their Teaching Academy and have in-class observation by faculty. Additionally, at Oxford, junior faculty is assigned a formal mentor responsible for providing career advice at regular intervals.

In contrast, early professors at KSU are given an additional teaching load, rather than allowing them to capitalize on the momentum created through their PhD thesis and to focus on research. Universities such as NUS, Cambridge and Stanford, by contrast, provide a reduced teaching load so that faculty has time to make a solid research contribution in their discipline.

Strategic implications for KSU: *KSU should implement an early career proposition that enables the development for newly hired faculty.*

For tenured faculty, professional development opportunities at KSU are overall very limited. There are few and untargeted trainings on offer for faculty; external conferences are subject to long and tedious approval processes; and, although sabbaticals for research are supported by KSU, this is not widely known by faculty.

Strategic implication for KSU: *KSU should create greater professional development opportunities for its faculty by establishing a Teaching Institute, enabling attendance of key conferences in the discipline, and promoting sabbaticals for completion of major research.*

Professional development at KSU is currently limited

	KSU	Best practices
Trainings	<ul style="list-style-type: none"> Limited and untargeted internal trainings <p>"We give up on faculty training and conferences. It takes forever and requires too much follow-up"</p> <p>"On my first lecture, I was just thrown into the room with no idea of what to do. No one provided me with any training"</p>	<ul style="list-style-type: none"> Internal training in <ul style="list-style-type: none"> – Teaching skills – Research skills – IT – English for research Compulsory number of hours a year, ~10 hours Harvard Medical School has set up a dedicated Teaching Academy to bridge skills of faculty
External conferences	<ul style="list-style-type: none"> Once a year for associate and full professors if a paper is presented <p>"Last time, I got my approval to a conference after the conference proceedings were published"</p>	<ul style="list-style-type: none"> All universities have a budget dedicated to conferences, allowing for at least 2 conference/meetings a year
Sabbatical leaves	<ul style="list-style-type: none"> Very limited provision for sabbatical leave and not before 10 years of service Only covers limited expenses <p>"I got my sabbatical accepted after a long time but with only ¼ of the funding I applied for"</p>	<ul style="list-style-type: none"> Oxford allows and fully funds 1 term sabbatical for every year's sabbatical

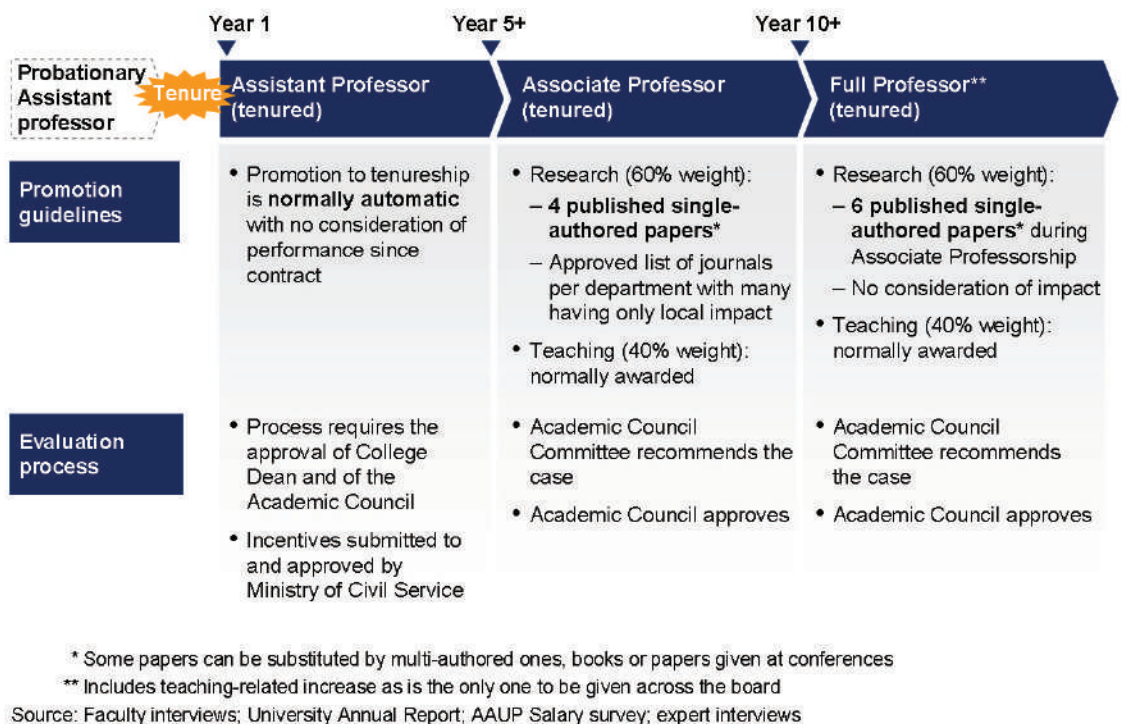
Source: Expert interviews; KSU interviews; team analysis

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3- The process by which KSU manages performance and ensures the accountability of its faculty: Great improvement is needed by KSU on this dimension -- KSU has not instituted an internationally benchmarked performance management system for its faculty and does not make it accountable for its research and teaching outputs. At KSU, career progression is almost automatic; it takes only 3 months to be tenured vs. 6-8+ years at benchmark institutions. Newly hired Assistant Professors often achieve tenure in their first three months of joining, automatically, without consideration for performance. The promotion to Associate Professor and Full Professor often hinges on the quantity of single author research papers, with little consideration for the quality or the impact of the publication. The actual performance of teaching is also not measured, and it is assumed to be of an acceptable standard with

the reward being assigned automatically. All these issues were highlighted by faculty during the SWOT workshops, further highlighting the strong need for improvement.

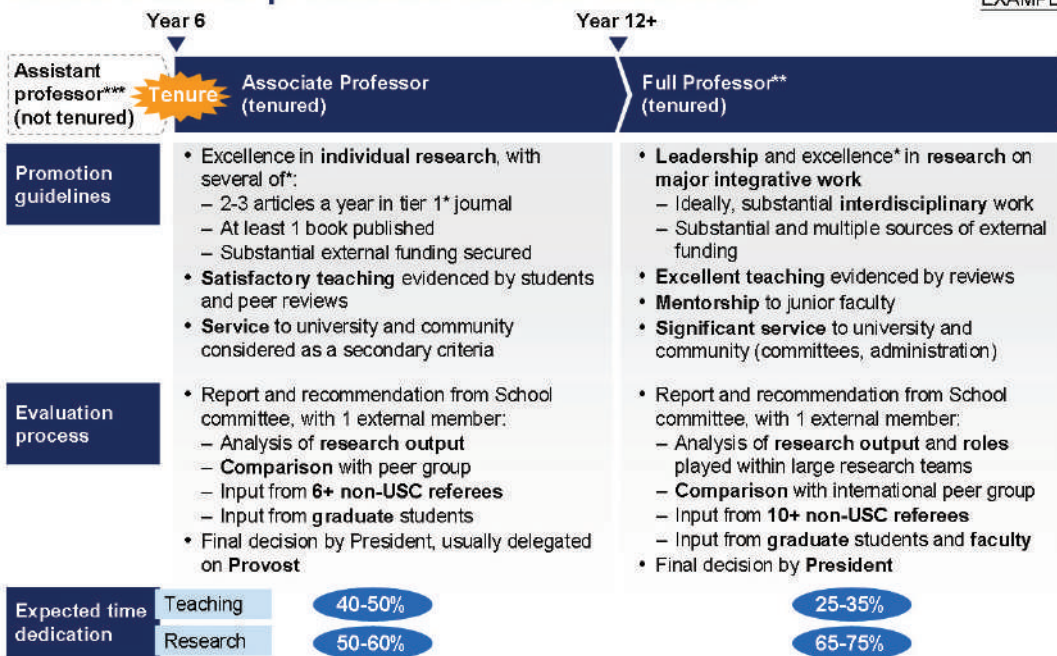
Career progression at KSU is automatic and has only a few quality measures at each step



At most benchmarked universities, the path to tenure can take 8 years or more and at most 75% professors are awarded tenure after a lengthy and systematic process. Moreover, these processes and guidelines are extremely rigorous, and based on the quality of research and teaching output as evidenced by peer (internal and external) and student reviews.

Career progression in the University of Southern California follows a defined process and has clear milestones

EXAMPLE



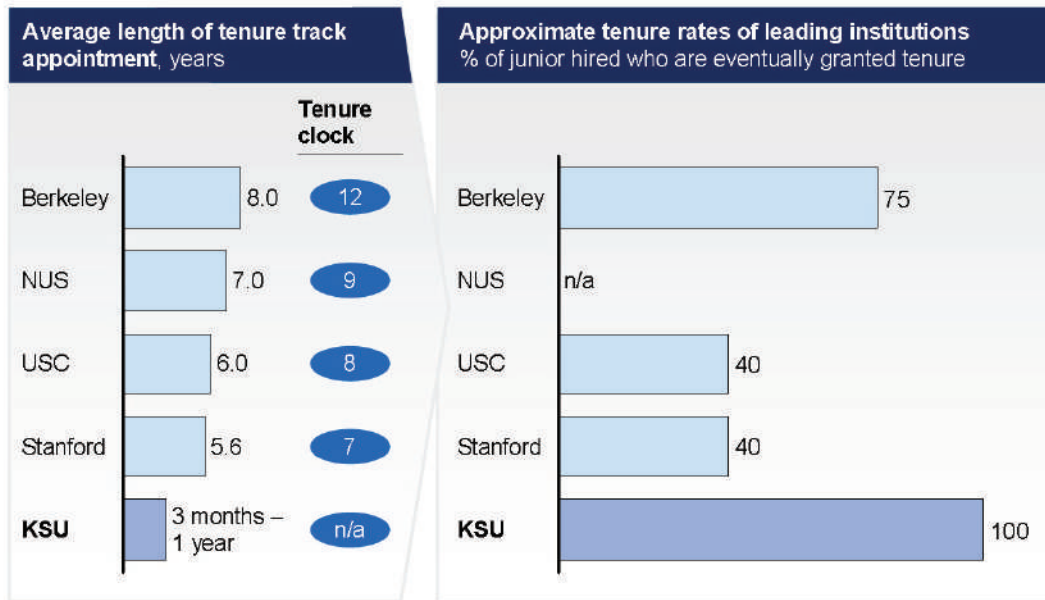
* Discipline-dependent

** Full Professorship is intended for a select minority, with the majority remaining Associate Professors

*** 30-40% teaching time vs. 60-70% research time

Source: USC Faculty Handbook and Promotion Memorandum; expert interviews; faculty survey

The process of awarding tenure at KSU against benchmarks



Source: Faculty handbooks; press clippings; expert interviews

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Additionally, research on faculty performance by Ernest Boyer⁶ has established that traditional tracks “one-fits-all” for researchers and teachers does not leverage the aptitudes of faculty and does not address the needs of students. At KSU, as in many other universities around the world, the one track system has reached its limitations.

- The one-size-fits-all approach rewards a dual focus on research and teaching, a model that has been largely unchanged over the last 70 years
- The model is heavily reliant on research output as performance measurement and creates no motivation to innovate in teaching and learning
- It does not take in account practical experience as the main quality of a professor in many professional subjects such as medicine or business
- Students can’t benefit from excellent teachers as much as from excellent re-

searchers, as the skill of being an excellent teacher is not recognized.

A number of universities are beginning to diversity faculty tracks, offering different specializations across the research-teaching continuum. For example:

- Investigation:

HHMI7 Investigator Karel Svoboda's use of microscopy helped to change the way scientist look into the brain; he does not teach but alumni from his laboratory are now professors at Harvard, MIT, UCLA, Imperial College, Friedrich Miescher Institute, INSERM*, Massachusetts General Hospital, Duke University, etc.

- Education:

Stanford University Professor Sheri Sheppard investigated engineering education as the head of a multi-million dollar NSF* grant, and as a result revolutionized engineering curricula with the development of "mechanical dissection", a practical lab on design for undergraduates, now used in more than 30 universities.

- Practice:

Before becoming Professor of Practice at Harvard Graduate School of Education, Thomas Payzant served as teacher in the states of Massachusetts and Washington, and later as superintendent of schools in Boston, Sand Diego, Oklahoma City, Eugene, and Springfield; he was also appointed to the US Department of Education by former President Clinton.

Universities such as Harvard have now started to adapt their faculty tracks to address these differences. This is particularly true in faculty of Medicines around the world that requires researchers, clinicians and educators to train their future graduates.

In 2008, Harvard Medical School implemented an innovative track system and supports it through key strategic initiatives



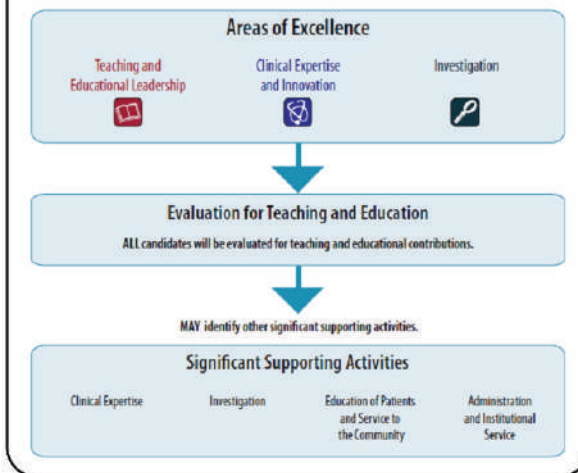
New track system

- Three distinctive areas of excellence
 - Investigation
 - Teaching and educational leadership
 - Clinical expertise and innovation
- Tenure-track faculty choose preferred area

Strategic support for a broader definition of scholarship

- Increase support for investigators
 - More funding for MD-PhD program
 - MMSc degree with full-time research year
- Value teaching activities
 - Creation of area of excellence
 - New Academy Center for Teaching, Learning and Assessment
 - New program in Graduate Education
- Stronger link to practice
 - Resident-as-teacher program
- Required scholarly project for students, emphasizing service to the community

HMS & HSDM* faculty chooses to focus on one area of excellence: teaching, practice, or research



Under the new criteria, scholarship is explicitly defined broadly to include not only peer-reviewed publications but also educational materials, policy statements, assessment tools, and guidelines for patient care

HMS & HSDM promotion guidelines

* Harvard School of Dental Medicine

Source: 2008 HMS & HSDM Criteria for Appointment and Promotion; HMS strategic plan

Strategic implication for KSU: KSU should introduce performance based tracks where tenure is granted after a rigorous performance evaluation and support is provided to achieve the right balance of research and teaching time, according to the profile and skills of the faculty member. The new path is subject to world-class review and performance management criteria on an ongoing basis.

4- Access to development, research, leadership and reward opportunities.

Non-Saudi faculty at KSU currently represents ~35% of its overall academic body. Additionally, 27% of the faculty is female. An international and diverse faculty body can be an additional source of strength and diversity for a university so long as the treatment of all faculty is equalized. KSU has experienced some challenges in this regard:

- Salary differentials at the University can vary from 30% less (Medicine) to

50% more (Engineering) compared to Saudi faculty. This difference is driven more by a need for expatriates due to scarcity of Saudi talent in a given college, rather than strategic needs or quality of faculty.

- Expatriates, unlike local Saudis, are on 1-year renewable contracts and cannot achieve tenure.
- Expatriates and females are not allowed to lead departments, colleges or centers even if they are in reality driving the particular initiatives

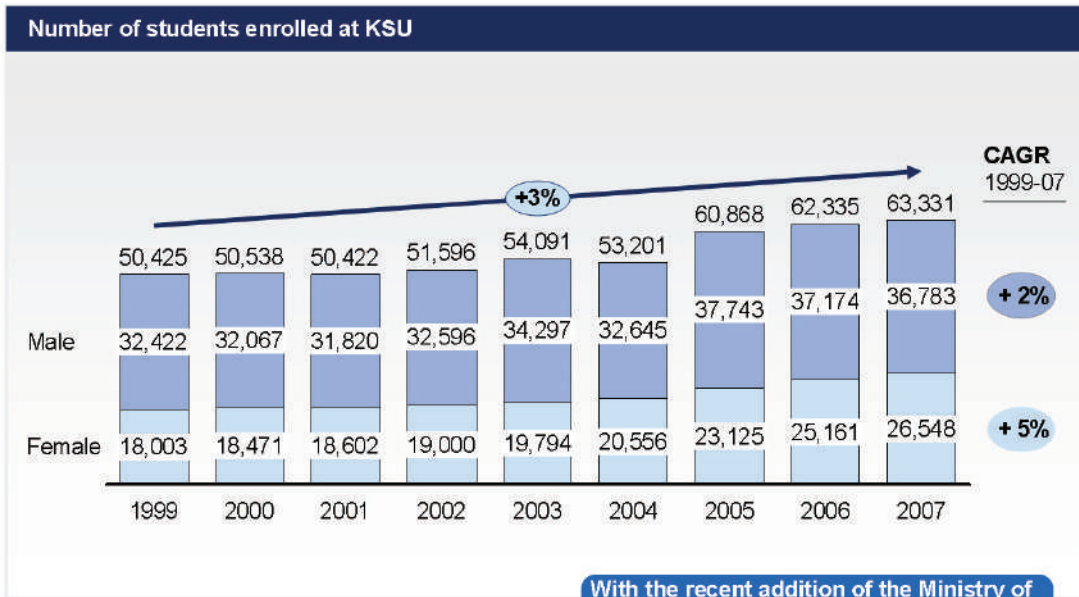
Strategic implication for KSU: *KSU should adopt equality of treatment for all members of its faculty, irrespective of nationality or gender.*

People → Students

KSU currently has ~111,000 students, one of the largest student populations of any university worldwide. Its sheer size means that providing education suitable for the variety of interests and abilities of students is challenging. In this section, we review the quality and quantity of the current student body.

Over 10% of the ~637,000 higher education students of the Kingdom are at KSU. Over the last few years, the total size has grown steadily at an approximate rate of 3% per annum, reaching over 63,000 students in 2007. Taking into account the recent colleges and schools that have been added to KSU (e.g., Ministry of Health Colleges), KSU's students rise to 111,000 in 2007.

The number of KSU students has increased steadily at 3% p.a. over the past few years



With the recent addition of the Ministry of Health Colleges to the KSU portfolio, KSU now has a total of ~ 111,000 students

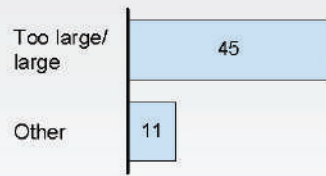
Source: Ministry of higher education statistics; KSU data; team analysis

Students and faculty alike perceive the current student population as too large. Faculty point to two specific issues: 45% of faculty feels class sizes are too large; and 55% feel the total student body size is too large. Students, at 48%, feel that there isn't enough faculty members to enable effective learning. And the student to faculty ratio, much greater than the benchmark in certain schools, has been further proof of the unwieldy numbers. During the SWOT workshops, all stakeholders highlighted this as a weakness and as a significant threat to the future of the university, and the whole landscape of higher education in the Kingdom.

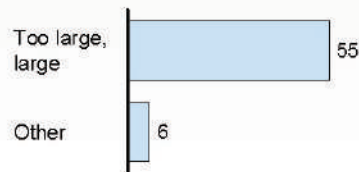
Students and faculty alike perceive that the student population is too large for KSU

Faculty feels class size and student population are too large

The class size faculty is required to teach is . . .
% of faculty respondents

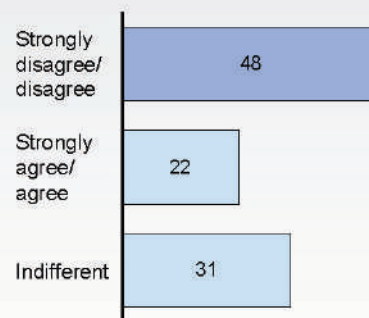


The undergraduate student population is . . .
% of faculty respondents



Students feel there is not enough faculty to enable effective learning

There is enough faculty to enable effective learning
% of student respondents



- 48.6% of students do not get helpful feedback on their academic progress
- >50% of students do not feel inspired and motivated by faculty
- >50% say, faculty does not seek feedback on their courses

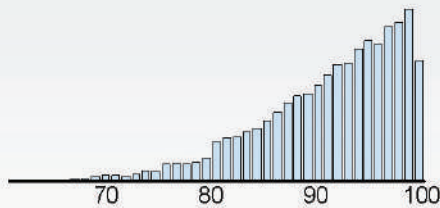
Source: KSU survey based on 264 complete faculty responses and 476 complete student responses; team analysis

The sheer number of students thus represents a challenge for KSU. This is further complicated by the variability in the quality of students. The variability in quality is evident in the huge range in the Qiyas scores. And the weighting of 30-40% given to the Qiyas scores in the admission criteria as compared to the overemphasis on the Thanawiya scores (with a weighting of 60-70%) further exacerbates the problem since less discriminating admission criteria will only increase student quality variance. This holds implications for faculty (who must contend with students of different skill levels in their classrooms) and university resource management (resources are wasted as seen by KSU's higher than benchmark freshman and sophomore failures rates of 15-20%, and on-time graduation rates of only 55%).

Qiyas scores point to high variance in quality of students at KSU

Thanawiya scores show little discrimination between students . . .

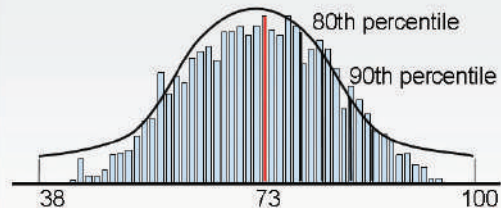
Number of students admitted, 2008



- Thanawiya weight* on admission criteria
 - 60% for men (across schools)
 - 70% for women (across schools)
 - 30% in school of medicine

However, the huge variation in student quality is captured by Qiyas scores

Number of students admitted, 2008



- Qiyas weight* on admission criteria
 - 40% for men (across schools)
 - 15% for women (across schools)
 - 30% in school of medicine

* Remainder is based on Tahsil

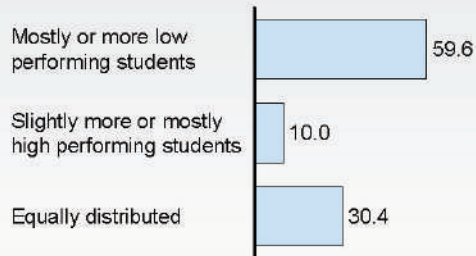
Source: KSU; team analysis

There are identified best practices that can help guide KSU and the Kingdom in reducing student failure, as well as supporting each and every student with a tailored higher education fitted to their capabilities and needs. Internationally, the California State Higher Education system presents a best-in-class tiered model. As per this model, the top 12.5% of high school graduates are guaranteed admission to one of the top research-focused universities of the University of California system (e.g., Berkeley, UCLA). The next tranche of students are admitted to teaching-focused universities (California State), and the remainders are admitted to vocational schools (e.g., community college). The State supports each tier with proportional funding per student whereby the top tier (i.e., the).

Faculty also perceive the low quality of students; this is reflected in higher than benchmark failure and drop out rates

Faculty at KSU perceive that most students are low performing...

% of faculty answered (n=250)

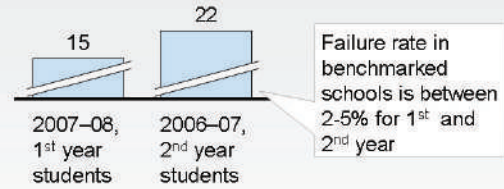


- Colleges that report highest perceived amount of low performers – Teaching, Arts, Education, Science, Food and Agriculture sciences

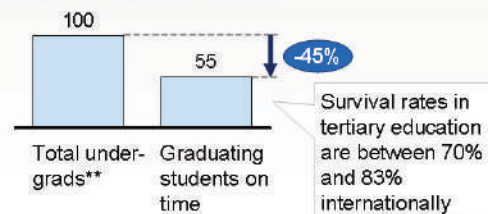
...this is reflected in failure and drop out rates at KSU

Early failure rate

% of 1st and 2nd year students* at KSU with a GPA less than 2.0



Undergraduate dropout rate

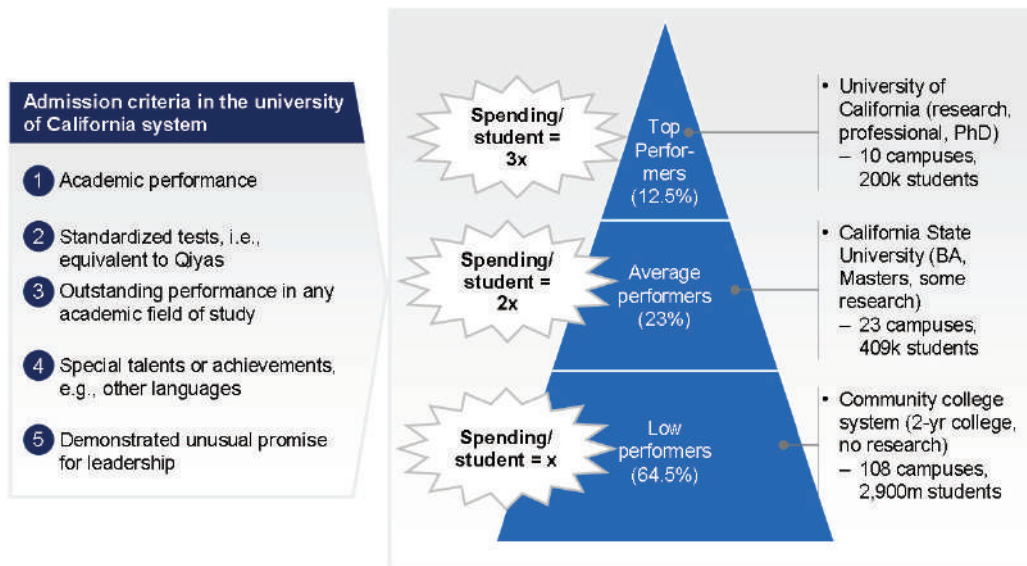


* Based on a sample of 7,326 of 1st year registered Riyadh students and 11,121 of 2nd year registered Riyadh based students. Overall KSU failure rate is likely higher since the best performing students are located in the Riyadh campus

** Students entering in 2002 for Arts, Education, Business, Science, Computer science; 2001 for Languages, Engineering, Agriculture, Architecture, Pharmacy, Applied Medical Sciences; 2000 for Medicine and Dentistry

Source: 2008 Faculty survey results (n=264), Student admission data; US News report 2008; team analysis

Through a discerning admission criteria, the California higher education system tailors its education to the quality of students

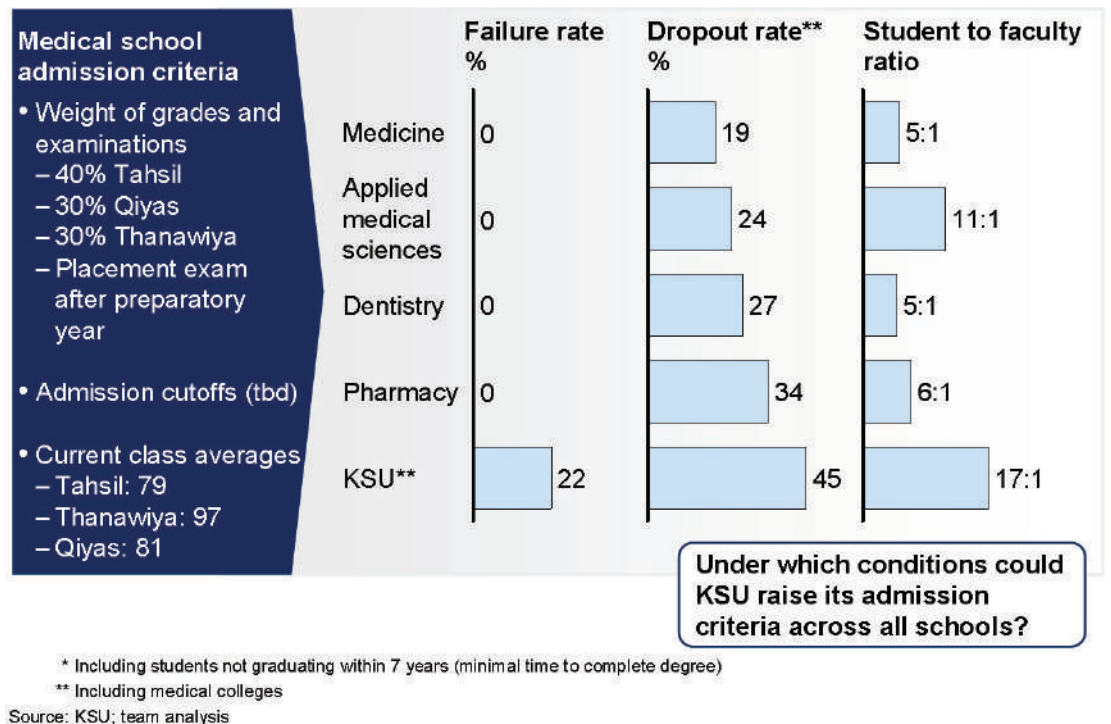


Source: <http://startfinder.ucop.edu/>, California Department of Education - Educational Demographics Unit, Team analysis

University of California institutions) receive three times as much funding per student as the community colleges, while the second tier (i.e., the California State Colleges) receive twice as much funding per student, as the community college.

KSU’s Health College is itself an example of how stringent criteria for admission results in higher performing students over the course of their academic life. The Health Colleges place a higher weight on Qiyas and a placement exam (Tahsili) relative to the grade-inflated Thaniwaya. As a consequence, KSU’s Health Colleges have 0% failure relative to a KSU average of 22%, and dropout rates are considerably lower than the KSU average.

Within KSU, the medical school has high admissions criteria, resulting in very low failure rates and low dropout rates*



***Strategic implication for KSU:** KSU should review its admission criteria and raise its admission bar, using the available Qiyas, Thanawiyas and Tahseely scores, heavily favoring the more discerning Qiyas, as well as college-specific placement exams. It should also seek to provide students not accepted to KSU with a viable, tailored alternative that suits their skills. The accreditation report also recommends that more clarity be introduced in the setting of student criteria and enrollment.*

People → Staff

The quality of the support staff at any organization will directly affect its performance. They are the backbone of the institution. At KSU, 12,000 staff members support faculty, administrator and students in all the activities performed to ensure that the institution functions smoothly and efficiently.

Surveyed staff indicate that they are relatively dissatisfied, that their motivation levels are low (70% feel unmotivated) and the system does not reward performance (50% feel unrewarded for their performance). Interviews and SWOT workshops with staff further revealed that they do not feel empowered or motivated due to four main reasons:

- Low salaries:

85% of staff feel they could be better paid in the external environment, but remain at KSU due to the job security that comes with being a civil servant.

- Poor performance management:

KSU staff report that they feel little incentive to improve performance. Moreover, 70% express that high performance is not rewarded in the university. Additionally, under the civil servant model, there are no disincentives for poor performance.

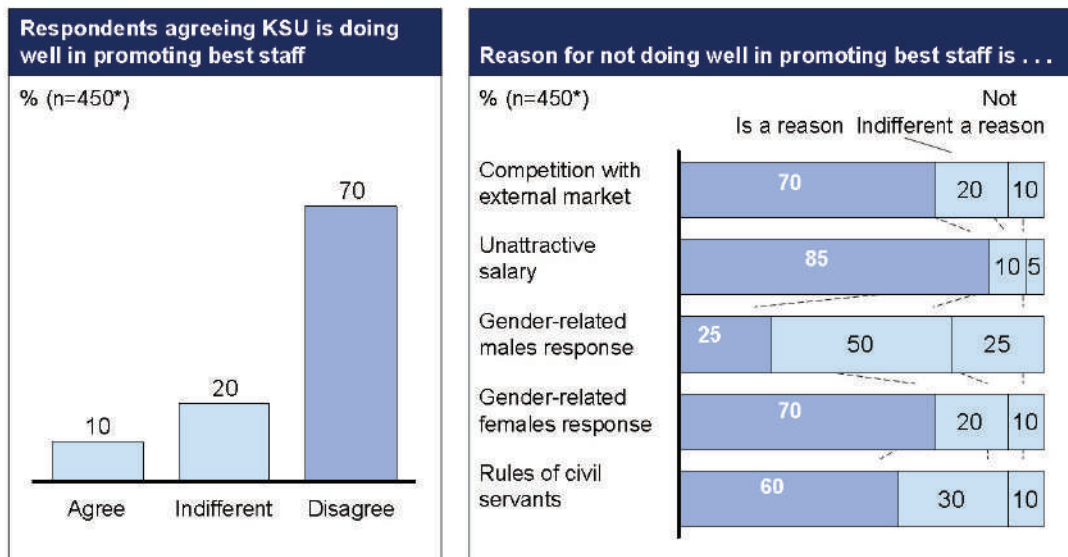
- Lack of a professional development:

Staff report that they have no professional development opportunities (e.g. training, performance feedback) to improve their skills.

- Mismatch of current abilities with job description:

The lack of motivation and morale of the current staff has led to a mismatch between their abilities and their roles.

70% of surveyed staff don't believe KSU is doing well in promoting best staff due mainly to unattractive salaries



* This includes the partially completed surveys and the completed 210 staff surveys;
Source: KSU survey; team analysis

Low staff morale has resulted in faculty and students being dissatisfied with campus and support services. 46% of students are unhappy with the administrative support and the quality of campus services, while 40% of faculty is also dissatisfied with the level of technical support they receive.

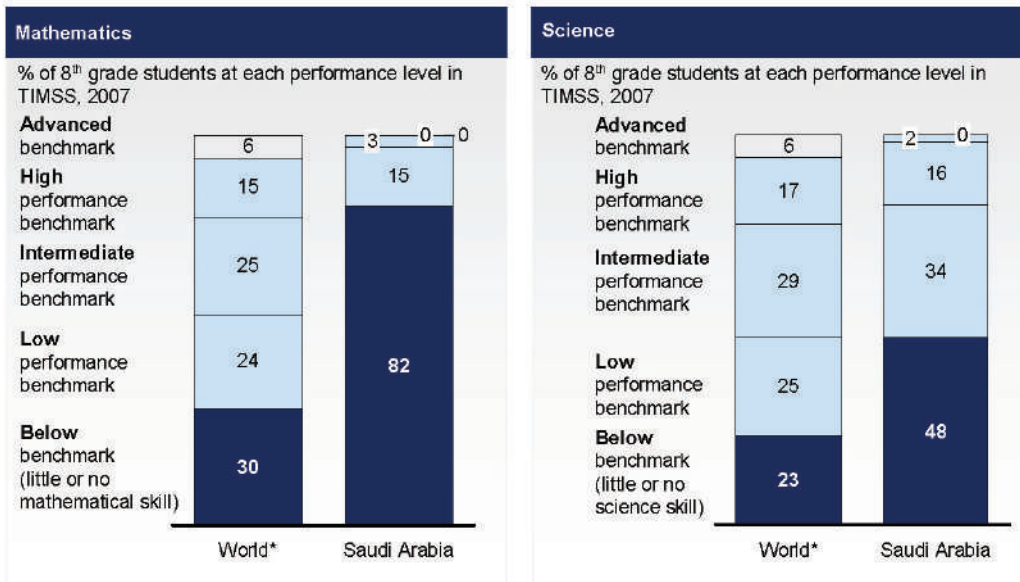
Strategic implication for KSU: KSU should provide professional development opportunities and promotions to staff commensurate with their skills and performance. To enable more effective performance management of staff, KSU should explore obtaining staff through short term contracts rather than tenured hire.

Teaching and learning → Pedagogy

The readiness of students for university fundamentally shapes the extent to which a university can build upon their skills and accelerate their progress. In

the case of Saudi Arabia, average student skill during school is low and this has had a significant influence on the caliber of students opting for university. In 2007, an international mathematics and science study⁸ of 8th graders revealed that KSA high school students overwhelmingly demonstrated below benchmark levels of skill (little or no skill) in mathematics (82%) and science (48%).

Majority of KSA's high school graduates have poor mathematical and science skills prior to entering university

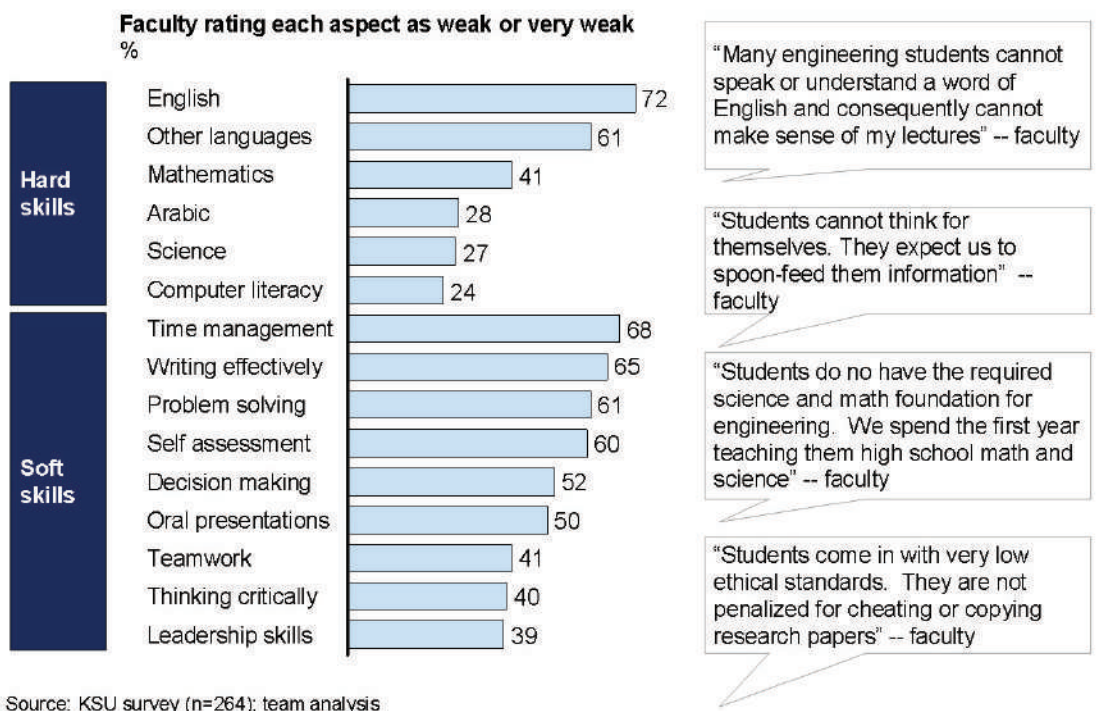


Source: TIMSS 2007; team analysis

As a result, when students of this caliber enter KSU, they find the transition hard to achieve. A majority of the KSU students surveyed found their entry challenging and cited a broad set of issues, from levels of preparedness to academic workload as reasons. Surveyed faculty identified skill gaps in the following areas:

- In soft skills such as problem solving (61%), decision making (52%), time management (68%), and written (65%) and oral communication (50%).
- In hard skills revolving mostly around English (72%) and mathematics (41%).

Faculty's perception of new admits at KSU



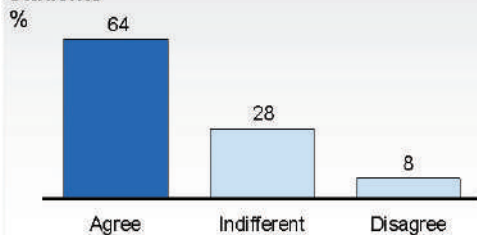
During the SWOT workshops, all stakeholders, and particularly alumni, raised the lack of university readiness and soft skills as an important issue. KSU's recent introduction of the **preparatory year** (whereby students are given foundation courses in core hard and soft skills before beginning their university-level studies) has started to address these gaps -- 64% of faculty and 55% of students agree that the preparatory year has helped improve the quality of students. The accreditation report also commends this initiative while highlight-

ing the following areas for improvement (these areas were echoed by students and faculty in interviews):

- A lack of program-specific foundation courses (except for the Health colleges) hinders the academic progression of students in core knowledge.
- Lack of proactive career and academic counseling (due to limited participation in such events by core KSU schools) leads to students being ill-informed about the academic choices and alternatives open to them.
- High variance in quality of incoming students dilutes the benefit for higher performing students.

Faculty and students feel that preparatory year is helping improve the quality of students

Percentage of faculty agreeing that the preparatory year has elevated the quality of students

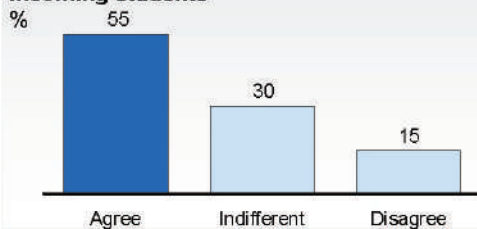


Prep year is bridging the gap between high school education and university education -Dean of prep year

Prep year is helping me adjust to college life. I'm now used to having responsibility for managing my time - Prep year student

Prep year is teaching us skills and discipline in a fun way -Prep year student

Percentage of students agreeing that the preparatory year has improved the quality of incoming students



They teach us an important element of how to be creative and how to interact with other students -Prep year student

The accreditation in English and Computer ensures high quality teaching -Prep year student

Maintaining high quality is at the heart of the prep year program - Prep year student

Source: Student and faculty survey based on 264 complete faculty responses and 476 complete student responses

- Limited reinforcement of acquired soft (teamwork, problem solving) and hard (English) skills in KSU degree programs post-preparatory year diminishes the positive benefits of the preparatory year program by graduation.

- Lack of a base-lining in foundation courses (English, Mathematics, IT) makes it difficult to objectively measure the success of the preparatory year.

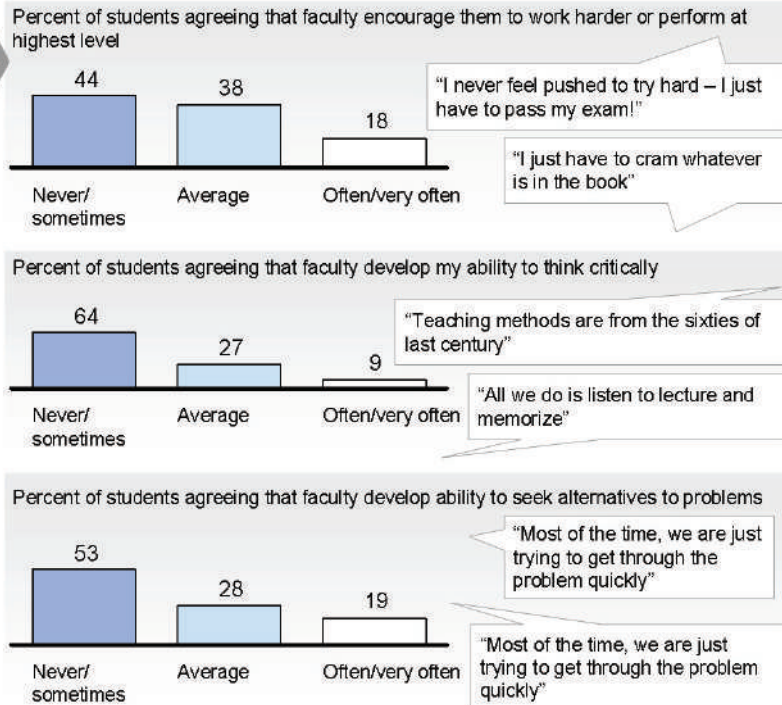
***Strategic implication for KSU:** KSU should create a 3-track preparatory year program, with a mandatory placement exam for entering undergraduate school.*

It would be premature to make any kind of assessment of the preparatory year since it is recent in its implementation, but the relative strength of its offering identified by faculty, students as well as the accreditation report is a source of hope and a core capability KSU can build on. That being said, KSU students emerging from the preparatory year program still face the same curriculum of the degree programs as their predecessors. The accreditation report has a clear perspective on this matter: “the range of study skills planned within the Preparatory Year will need to be linked to and continually reinforced throughout the rest of the curriculum through appropriate support services. (...). The strong English preparation (...) will need to be continued through the undergraduate years”.

In addition, the current undergraduate student population feels relatively disengaged with the university experience. Whether it is about creating a work ethic (44%), or about thinking critically (64%) or developing alternative solutions (53%) to problems, these students overwhelmingly feel that the KSU faculty does not teach them the right skills to succeed in the marketplace. And as we outlined in the section on outcomes of teaching effectiveness, alums face gaps in core skills to succeed in the market place. The accreditation report further opines that “there is a need for graduates to be better in communicating, better in researching and better at applying their knowledge and skills to solve problems creatively. Both the employers and alumni reported that KSU is falling behind its competitors in terms of technical skill levels as well as in generic job-related skills”. Specifically, employers have highlighted these same aptitudes, in addition to their lack of English and communications skills, as key weaknesses that KSU should address in its core programs.

KSU undergraduates feel disengaged with their university experience

Engagement and skill development
Percent



Source: 2008 faculty survey – Launched November 20th (n=1001); 2008 Student survey – Launched November 20th (n=830; Interviews; Team analysis

Strategic implication for KSU: KSU should ensure that the skills taught during the preparatory year (English, soft skills) are developed further through the curriculum of all its academic programs. The accreditation further recommends the development of a comprehensive Learning and Teaching plan to support transition points for students, and skill-building for faculty.

Teaching and learning → Environment

The learning environment in a university extends outside the classroom and is a core element of the university experience.

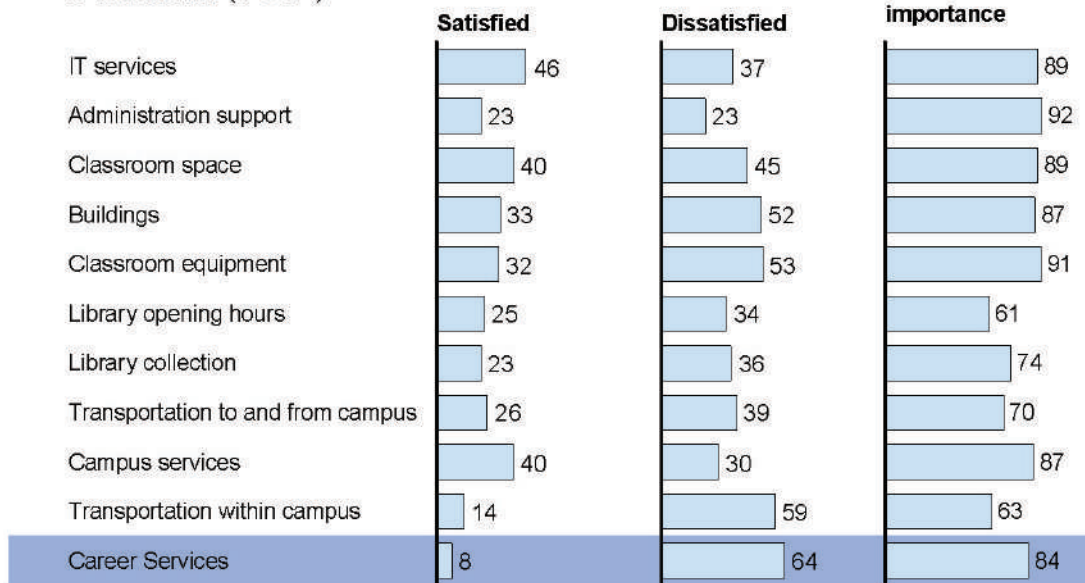
Overall, surveyed students perceive the quality of the KSU’s environment as

poor along the following three crucial dimensions, as identified through interviews and during the SWOT workshops.

- Career counseling and guidance (64%);
- Learning resources and infrastructure (53% in classroom equipment, 45% classroom space).
- Learning environment and overall student life.

Students are dissatisfied with the help of career services

% of students (n=747*)



"There is very limited employment counseling or systems to assist students and graduates to find employment" – Accreditation report**

* This includes the partially completed surveys and the completed 483 student surveys

**National Commission Academic Accreditation & Assessment preliminary report for January 9th, 2009

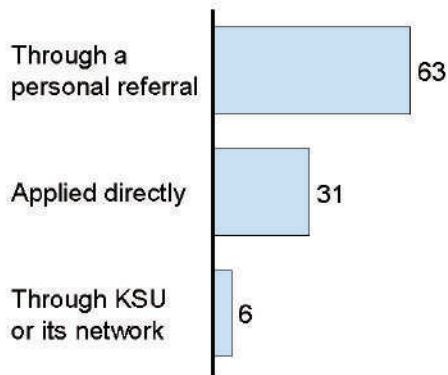
Source: KSU survey; team analysis

In particular, career counseling and guidance is underdeveloped as a service at KSU, as emphasized by the accreditation report. 94% of surveyed KSU alumni did not receive help in finding a job upon graduation, and over 60% had great difficulty in finding their current position. Many of these graduates are employed outside their field of studies.

Only ~6% of KSU alumni found a job through the help of KSU

How did you find your job up on graduation?

% of respondents



I graduated not knowing where to look for a job. There was no one to advise me or help me. I had to do everything on my own. It was painful

I applied to become a TA at KSU after graduation but I never heard back from them. It's been more than a year and I am still waiting for a response

Unless you have a personal connection, good luck finding a job! KSU does not help

KSU gave me a diploma and then left me. I have not hear from them, or connected with them since

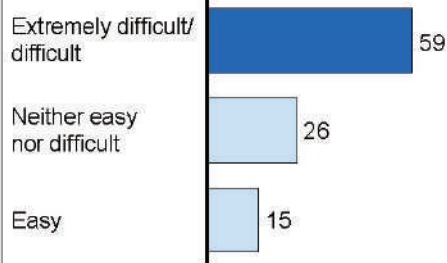
I graduated from engineering and I was lucky to be unemployed for only 4 months after graduations. Some of my classmates took much longer to find a job. KSU couldn't help

Source: KSU alumni phone interviews; team analysis

~60% of interviewed alumni faced difficulty in landing a job after graduation

How easy was it for you to find a job upon graduating from KSU?

% of respondents



- On average, KSU graduates interview for 6 jobs before settling on their first job, where only 1–2 interviews are successful
- 20% of graduates work in areas outside their field of study
- 60% do not view their current job as one of their top 3 choices

I didn't know what my options were after graduation. I didn't know where to search for a job

I interviewed for 15 positions but got none. I am not sure what went wrong!

It took me 6 months to find a job and I am not even satisfied with it. But I don't have much of a choice.

I had to rely on my personal connection and not on KSU to find a job

If you are lucky you may find a job!

I graduated from KSU with a law degree. I was so desperate for a job that I ended up writing checks at a public transportation company for a monthly salary of SR 2,500

Source: KSU alumni phone interviews; team analysis

The accreditation report observes: “No comprehensive system of advising appears to exist with students’ needing to initiate an advising contact.”

Through interviews with alumni and students, what emerged was that the root cause of this issue is the weakness and quality of the current career service offering. A majority of students surveyed identified clear weaknesses in the career services at KSU:

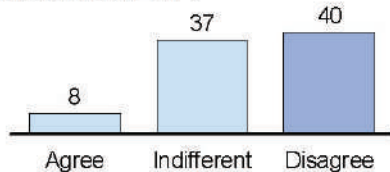
- Only 8% of student feel they receive good career advice;
- 8% feel they receive help in finding employment;
- 7% feel the university has real connections to the industry;
- 8% feel they receive adequate support in applying for positions.

As most benchmarked universities revealed, a strong career counseling service with clear ties with employers is necessary to ensure the employability and visibility of a university's graduates.

Students don't think career services provides the right resources or offers the right help

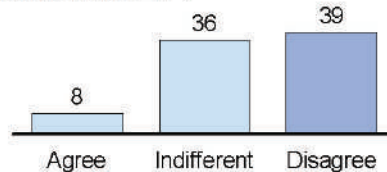
Majority of students don't get good advice from career services

Students answering if career services gives excellent advice
% respondents (n=747*)



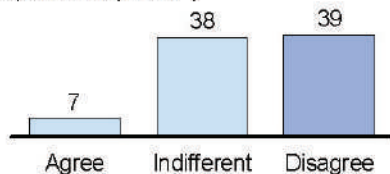
Majority of students don't think that career services is helping them find employment

Students answering if career services helps them find appropriate employment
% respondents (n=747*)



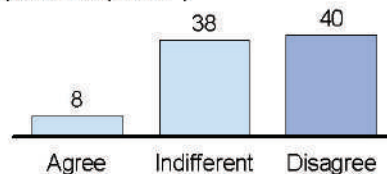
Majority of students don't think career services has the right connection to industry

Students answering if career services has the right connection to industry
% respondents (n=747*)



Majority of students don't think career services offers the right job application support

Students answering if career services offers the right job application support
% respondents (n=747*)



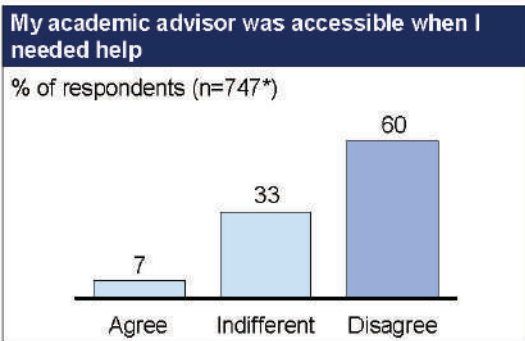
* This includes the partially completed surveys and the completed 483 student surveys
Source: KSU survey; team analysis

Strategic implication for KSU: KSU should strengthen its career counseling offering by building stronger ties between programs and industry, while helping students improve their interview skills and supporting them in their job search.

The additional dimension on **counseling** is around academic advice. Since the quality and aptitudes of students at university vary significantly, there will inevitably be students that will require support at one or many points of their university life. Given the high failure and dropout rate, as well as a staggering 52% transfer rate, it is imperative for KSU to support students in their

academic life. Many models exist around most universities, from the very personalized person to person mentoring system to a remedial program for probationary students. The students we surveyed at KSU were mostly unaware of any kind of academic advisory offering; and those that had actually used the services did not find them useful.

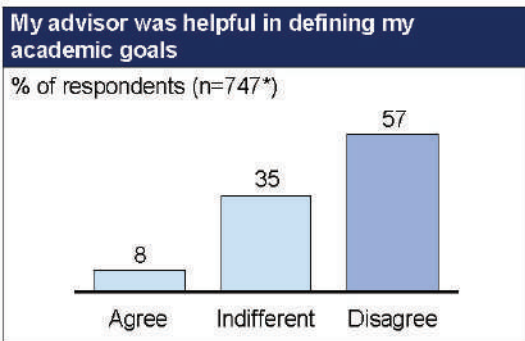
Students believe academic advisors were neither accessible nor helpful



"I chose my major randomly; I wish I could change it now. I wish I had someone to advise me on how to choose a major" -- student

"The reason I chose my major was so that I can get a university degree and not that I wanted to study my major" -- student

"We did not know what we were getting into" -- student



"There is lack of clarity of how student interests link to their major and how their majors link to employment opportunities" -- faculty

"Students sometimes get into their major as a back-door to transfer into another major" -- faculty

"I didn't know how to choose a major. I didn't know what my options are." -- Student

* This includes the partially completed surveys and the completed 483 student surveys;
Source: KSU survey; team analysis

Strategic implication for KSU: KSU should provide an advisory program, and make it compulsory for high risk students (e.g., probation students).

Surveyed students and faculty seemed to arrive at similar conclusions about the **infrastructure and learning resources**: The current campus environment is not conducive to a great university experience. 52% of students and 60 % of faculty are dissatisfied with the campus infrastructure. Faculty interviews pointed to a lack of group study areas, poor infrastructure in general and a

campus configuration that did not support collaboration. Faculty specifically highlighted the class environment as a weak point of KSU during the SWOT workshops, specifically the size of the class, and equipment. The accreditation report also makes this observation as did students during the SWOT workshops.

Faculty is disappointed with the hard infrastructure

Faculty are dissatisfied with the office, lab and equipment

Faculty answering if they are satisfied with the offices, labs and equipment
% respondents (n=557*)

Satisfaction Level	Percentage
Satisfied	30
Indifferent	9
Dissatisfied	60

... and with the technical equipment, e.g., beamer, white board

Faculty answering if they are satisfied with the technical equipment at KSU
% respondents (n=557*)

Satisfaction Level	Percentage
Satisfied	30
Indifferent	14
Dissatisfied	53

We can't expect huge transformation at KSU unless the conditions of the labs and classrooms are hugely enhanced

Our labs are great, however they are overused due to the size of the university.

The tools inside the classrooms are lagging behind where they should be when compared to other universities in the world

Our classrooms should be equipped with the latest technical support, such as electronic white boards, etc.

The infrastructure resources are lacking in some colleges and some buildings. We should aspire to make our buildings similar to the pre year building

* This includes the partially completed surveys and the completed 265 faculty survey;
Source: KSU survey; interviews team analysis

Overall, students are dissatisfied with the quality of services they receive at the University. The complaints range from the quality of IT services (37% dissatisfied), to internet connections to the overall infrastructure. The situation is worse on the women's campus. Women currently occupy the old male campus of Oleisha and Malaz. The survey responses are on average 20-30 point worse on all dimensions of the hard infrastructure compared to their male counterparts. During the SWOT workshops, female also raised issues related

to infrastructure more often and more consistently than their male counterparts. A new female campus is currently being built to address these issues at an investment of SAR 7.5 billion.

Students are dissatisfied with the hard infrastructure

Students are dissatisfied with the IT infrastructure

Students answering if they are satisfied with the IT infrastructure

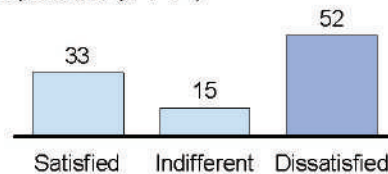
% respondents (n=747*)



... and with campus buildings

Students answering if they are satisfied with the campus building

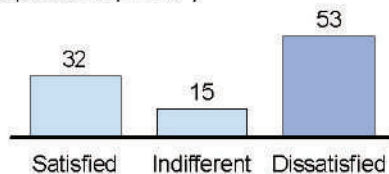
% respondents (n=747*)



... and with the equipment in classrooms and labs

Students answering if they are satisfied with the equipment at KSU

% respondents (n=747*)



... and space in classrooms

Students answering if they are satisfied with the classroom space

% respondents (n=747*)



* This includes the partially completed surveys and the completed 483 student surveys;

Source: KSU survey; interviews team analysis

A deeper dive in specific services such as the library also highlights some issues both from the administrator as well as the student perspective. Although the KSU library has a large collection, several issues that were highlighted during the interviews and surveys:

- Many collections and publications require longer-term subscriptions, outside the current budgetary scope of the one year they currently have. Administrators highlighted this as an example of the need to improve the predictability and sustainability of funding.

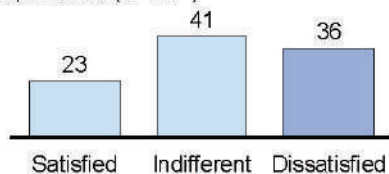
- Faculty interviews highlighted additional issues with a lack of completeness of the collection and the slow responsiveness of the library staff for book requests; 50% find the collection incomplete
- Only 23% of students additionally felt that the collection was satisfactory, and supportive of their academic needs.

Students and faculty are dissatisfied with the library

Students are dissatisfied with the library collection

Students answering if they are satisfied with the library collection

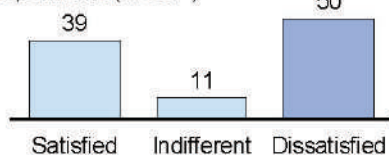
% respondents (n=747*)



... And faculty share that perspective

Faculty answering if they are satisfied with the library

% respondents (n=557*)



We need to update our library collection with the latest book collection

Our library processes and collection need revamping

The reason for the low utilization of the library is the quality of the book collection

We should invest in the library both in terms of building, and experience inside the library

The environment inside the library does not encourage anybody to stay in the library or to borrow from it

"Library resources appear to be very limited and include outdated material" – Accreditation report**

* This includes the partially completed surveys and the completed 483/265 student/faculty surveys

** National Commission Academic Accreditation & Assessment preliminary report for January 9th, 2009

Source: KSU survey; interviews team analysis









Strategic implication for KSU: *KSU should continue its commitment to improving campus infrastructure and providing more sustainable funding for the library, while simultaneously aligning library strategies closer to the needs of the colleges.*

When it comes to extracurricular, the accreditation report finds that student extracurricular activities across KSU are limited. In comparison the bench-

marks, KSU has few student societies relative to the literally hundreds at benchmarks.

Extracurricular are an important part of the student experience, and can serve as a excellent medium for reinforcing aptitudes learned in class, or developing new ones, including leadership, teamwork and communication skills.

KSU has a relatively low number of student societies relative to benchmarks

Institution	Student societies Number
 Stanford University	>600
 University of Southern California	600
 MIT	455
 Harvard University	390
 Tsinghua University	112
 東京大学 THE UNIVERSITY OF TOKYO	74
 NUS National University of Singapore	64
 KSU	~10*

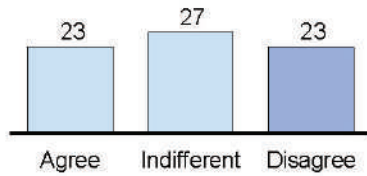
Strategic implication for KSU: KSU should provide a framework which will help students to launch and run campus clubs within the cultural context of the Kingdom.

Lastly, the learning environment, particularly with regards to interactions between students and faculty, is critical to effective student learning. Only a minority (23%) of students interviewed and surveyed, as well as several faculty members, think of KSU as an environment of mutual respect.

A large portion of students do not believe that faculty treats them fairly or respectfully

Students agreeing that faculty treats them with respect

% (n=747*)

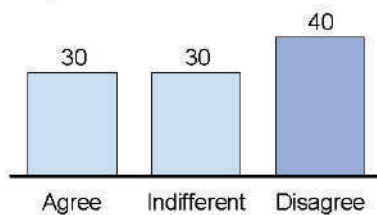


To have my professor re-grade my exam, I have to pay SAR 500; and I would risk having the professor deduct marks from my score

Faculty have no incentive to treat us with respect

Students agreeing that faculty are fair in grading

% (n=747*)



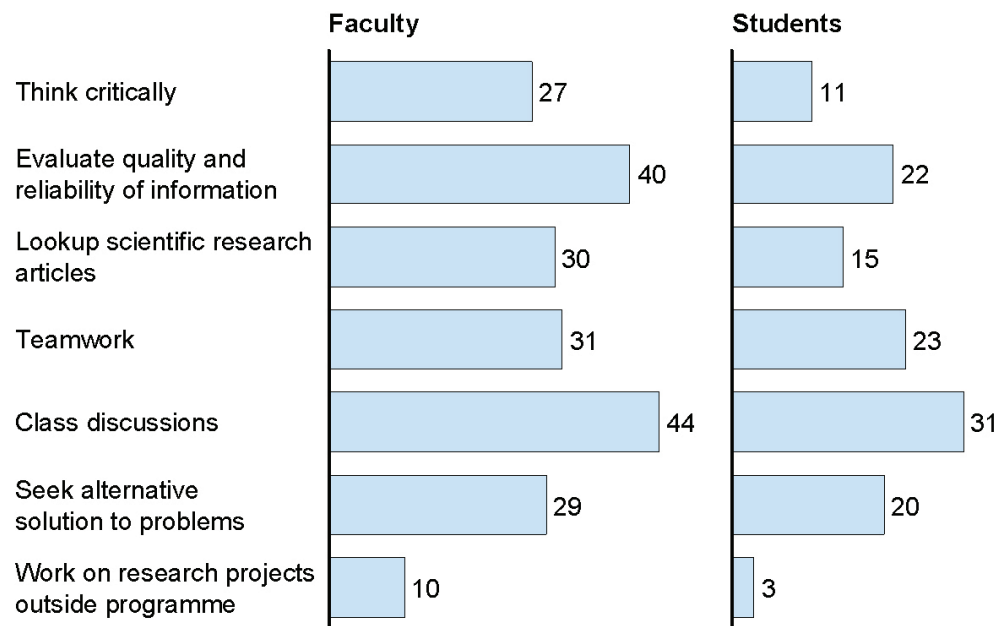
The policy of re-grading our exams is unacceptable in any institutions in the world. It's not fair

We should be able to 'grade' our faculty's performance, just as they grade our performance

* This includes the partially completed surveys and the completed 483 student surveys;
Source: KSU survey; interviews team analysis

Students rate interaction with faculty lower than faculty does

Students and faculty answering if faculty encourages students to..
% (n=747 for students and 557 for faculty*)



* This includes the partially completed surveys and the completed 483/265 student/faculty surveys;
Source:KSU survey; team analysis

Strategic implication for KSU: KSU should launch an end-of-semester student review of faculty administered independently, incorporate results at the end of the semester review into the faculty yearly review, and create an empowered judicial faculty committee at the college level in charge of resolving cases raised by students related to violations of their rights

Research → Environment

Hiring high quality faculty and providing them with the right incentives to perform is not sufficient for ensuring that the expected outcomes take place. The right conditions are crucial for creating an environment that encourages research.

- A thriving research environment with adequate support, connectivity with

the external world and collaboration are key conditions to ensuring the highest quality of output.

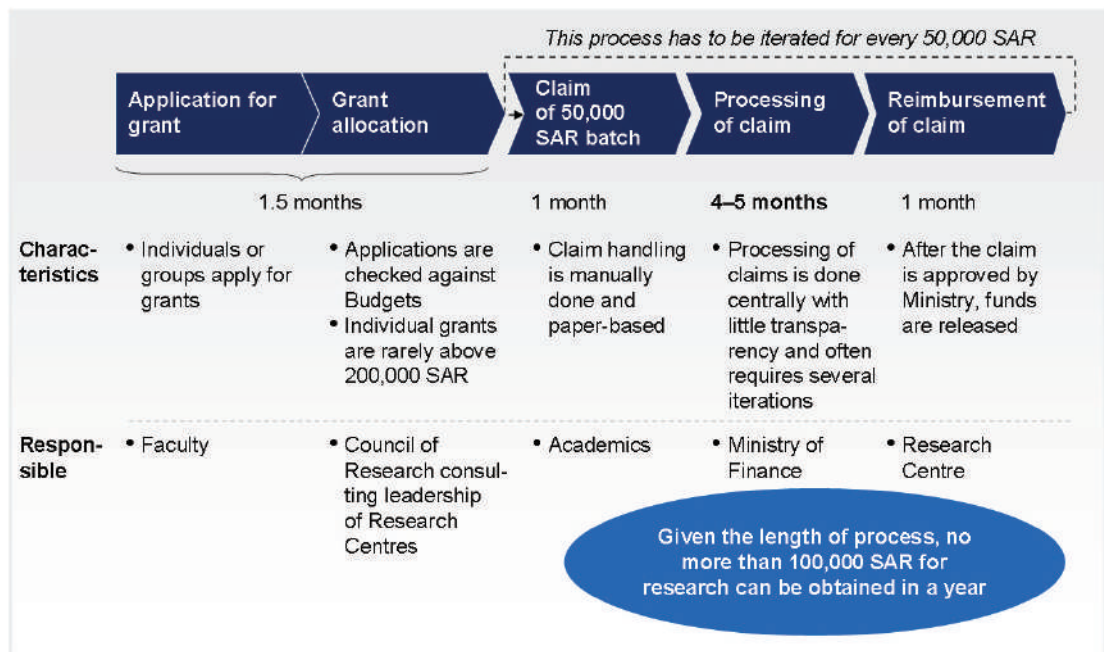
- A thriving graduate program is necessary to provide succession, but also to support researchers with their teaching loads as well as supporting their research.

On the **research environment side**, interviews with faculty and benchmarking against international best practices highlighted four areas where KSU's environment can improve:

- Total available funds for research are limited and, on a per capita basis (less than USD 19k), are a tenth of those of top universities worldwide. Nevertheless, all stakeholders highlighted during the SWOT workshops that the current funding environment is strong and constitutes an opportunity to capture.
- The allocation of the funding, once the funds have been earmarked for a project, is subject to a lengthy 4-6 month process per claim, limited to 50,000 SAR each time, requiring approval by the Ministry of Finance, which limits the actual usability of earmarked funds by researchers. The exhibit below is one example that highlights the difficulties.

The process allocation of funds for research is lengthy and difficult

Process from the application for funds to its allocation



Source: KSU interviews, team analysis

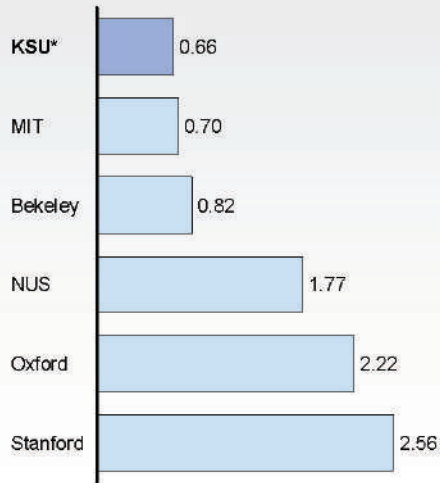
- The current faculty workload is heavily skewed towards teaching (40%), leaving limited time for research activities (16%) ; as seen earlier in the measure of outcomes. Additionally, administrative requirements (15%) cause a high amount of frustration with existing faculty. At the top research universities worldwide, by contrast, the load is skewed towards research activities (30-37%). An additional phenomenon is the amount of time spent on other activities which include consulting work, in which the university does not, or rarely benefits. Interviews with faculty point to the lack of clear regulations around these activities, and the additional financial benefits they can reap by working outside of KSU.
- Technical and administrative support for faculty is also limited as compared to benchmark universities, leading to a high level of frustration among faculty over their additional administrative burden.

Technical and administrative support for faculty

Support staff is scarce and of low quality ...

... while support in other universities comprises a wide variety of functions not present in KSU

Support staff/faculty member



USC EXAMPLE

Best practice

Analytical teams

- Dedicated cross-school staff for statistical analysis

IT

- Centralised helpdesk system 24 hr a day

Research processes specialist

- Facilitators that assist and coach academics in:
 - Development of research projects
 - Applications for external funding
 - Editing of publications for journals

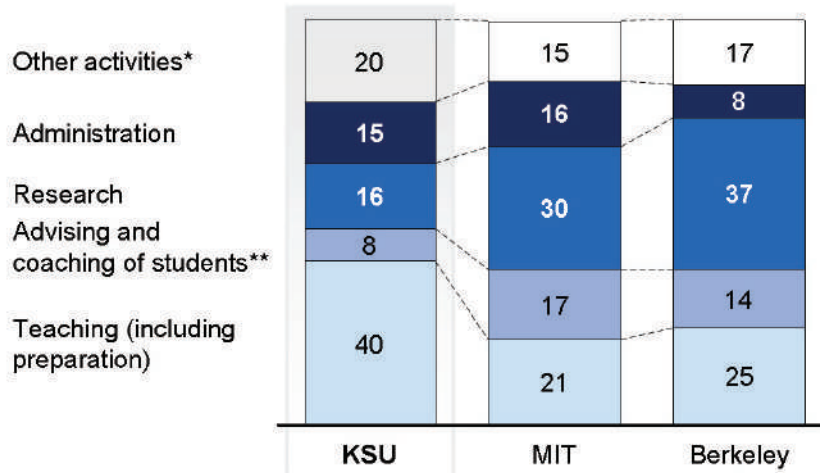
Secretarial staff

- Department-level support with travelling, scheduling, organisation of conferences

* Overall KSU figures. For other universities, sample from Engineering School

Source: Team analysis

Relative to benchmarks, KSU faculty dedicate more of their time to teaching and other non-University activities
Average percentage of time dedicated for all faculty levels. 2008



* For KSU, includes mostly consulting work and other work outside the University

** Includes office hours and graduate student supervision

Source: KSU Faculty survey (n=613); MIT and UC Berkeley Faculty Climate surveys

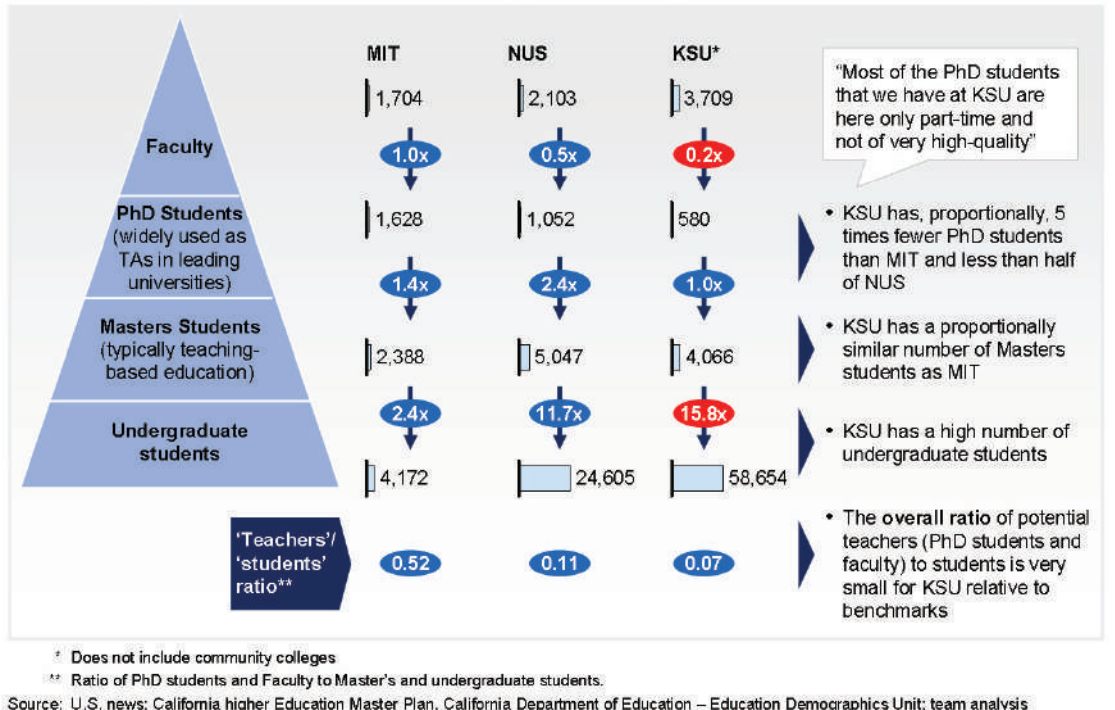
Strategic implication for KSU: KSU should launch tailored merit-based tracks with a varied balance of research and teaching for faculty while providing greater administrative and logistical support and demanding higher performance.

Research → Graduate program

The KSU faculty lacks the PhD students to leverage for fulfilling teaching and research duties; especially compared to most leading research institutions worldwide. Including PhD and Master’s students, the ratio between this expanded definition of faculty to undergraduate students is low (0.07). The lack of PhD leverage in fulfilling teaching and research duties is a hindrance on KSU’s ability to produce quality research, or improve its teaching approaches.

KSU faculty lack Ph.D. student leverage in fulfilling their teaching and research duties

Relative proportion of students of different types vs. faculty, 2008



Moreover, KSU only offers very few graduate programs, representing less than 10% of the current student body composition. Anecdotal evidence gleaned from faculty interviews suggests that many students are de-facto part-time. There is also a concern around the quality of the graduate students, as few of them have gained experience outside of KSU.

Strategic implication for KSU: *KSU should raise the number of its quality graduate students and programs, to support its aspiration of becoming a research-based institution. The breadth of programs on offer at the University can act as a strong foundation from which to build distinctive disciplines.*

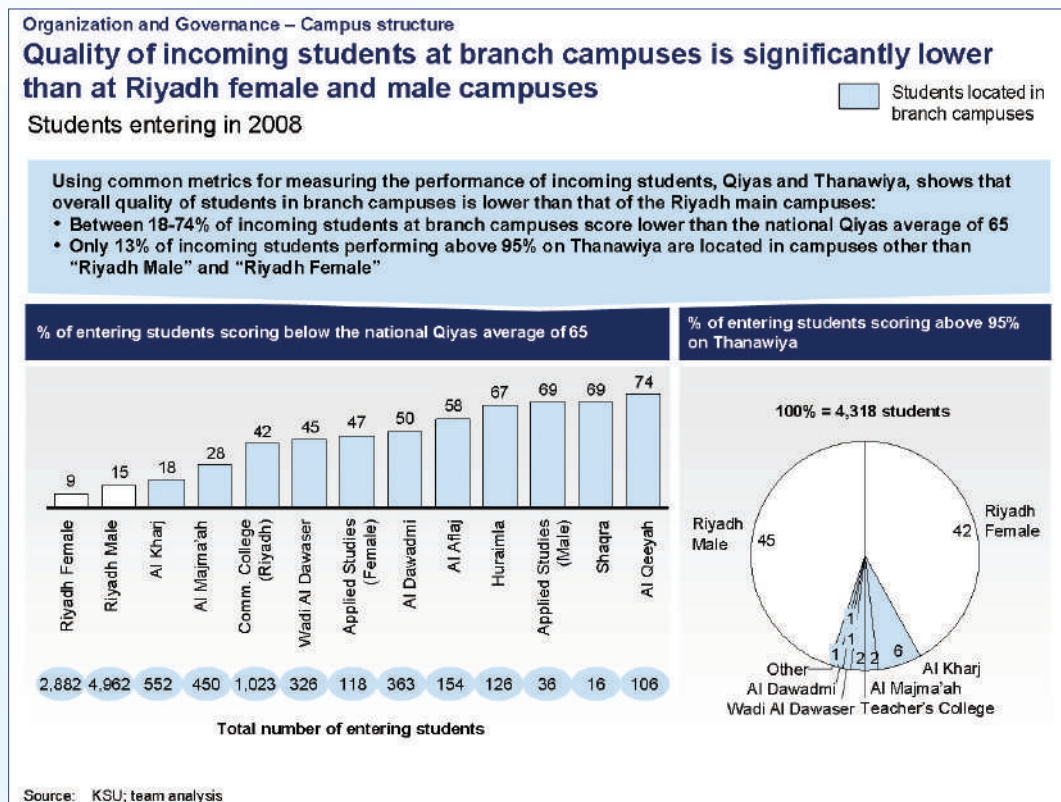
Governance and Management → Governance and Leadership

It goes without saying that all the areas of improvement identified across the different dimensions will help increase the overall quality of graduates and research. Nevertheless, sometimes the most difficult changes are those that pertain to the organization and structure of a university. This is not an exact science; various universities around the world have, in similar situations, successfully adopted various different models and have found approaches specific and appropriate for their own contexts.

This section highlights some common threads across institutions, and provides an avenue for addressing the identified needs at KSU.

Campus structure of the university

KSU currently has 18 geographically dispersed campuses, with overlapping and non-coordinated departments, and varying quality of students.



Within each of these campuses, there are 40 colleges and 211 departments, of which 19 colleges and 81 departments are located in branches outside of Riyadh, with the academic achievement of students generally being worse in the branch campuses. The number of departments and colleges are large compared to benchmarks.

Such a campus structure has a major effect on KSU as a whole:

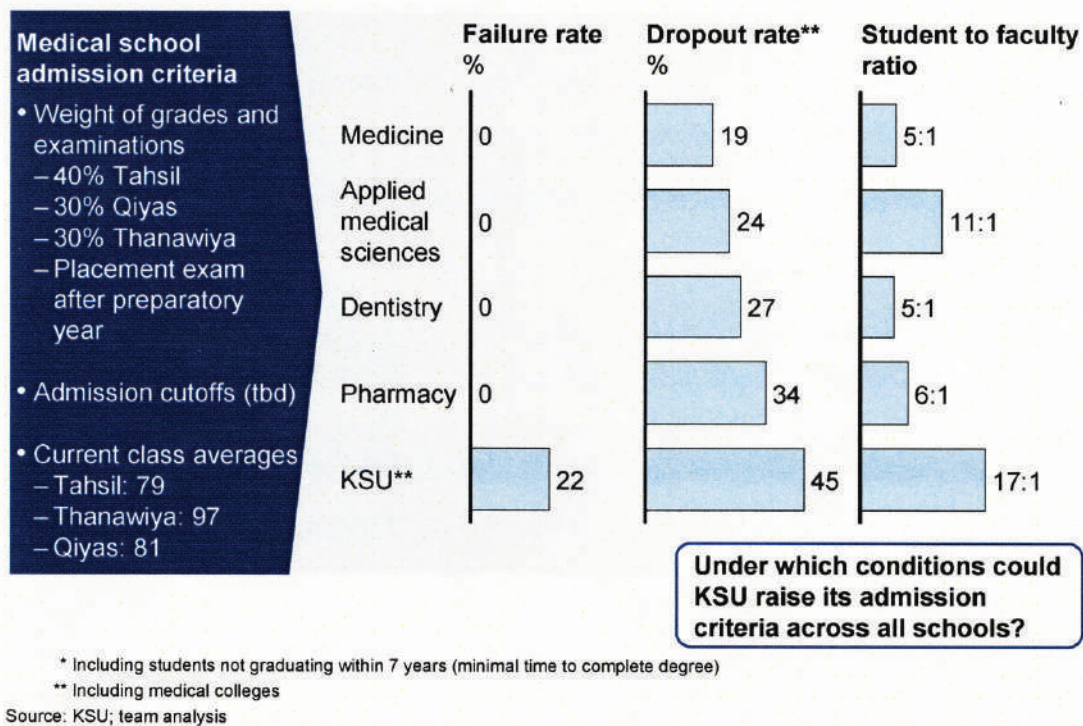
- Strategic and leadership focus is diluted trying to address the unique needs of multiple locations and large numbers of students
- Chances of accreditation for the overall Riyadh campus are lower, because the varying quality of students and lack of faculty credentials in remote campuses hinders recognition.
- Branch campuses also impose a higher managerial and financial burden on the main campus as evidenced by a high level of duplication in student offerings to adapt to student needs; difficulty in managing distant campuses and maintaining a consistent level of quality; and the increased financial and resource impact on shared services.
- Additionally, the local communities risk not being adequately served by the branch campuses. As the branch currently reports to KSU and its strategy is set by a central governing unit, local communities' needs and agenda are not completely fulfilled by the current branches.
- As the population grows, branch universities will need to gain scale to accommodate a growing student population.
- A reporting relationship to KSU's central campus hinders the local campuses' ability to set a strategy that is tailored to its specific needs, while simultaneously succeeding in having its voice heard and needs met at the Ministry level.

Strategic implication for KSU: *KSU should support the current Ministry of Higher Education plan to spin-off non-Riyadh branches into three standalone universities.*

School structure of central Riyadh campus

KSU-Riyadh currently has a large number of schools and departments relative to other universities, with many of its departments having less than 200 undergraduate students.

Within KSU, the medical school has high admissions criteria, resulting in very low failure rates and low dropout rates*



This fragmentation in the overall offering creates three major issues for the University:

- Lack of coordination and collaboration between programs, faculty and research departments.
- Differential employability of graduates due to multiple programs catering to the same end market.
- Lack of sufficient management bandwidth and efficiency as the large number

of departments leads to an increase in the administrative burden on the faculty and on the overall university.

Across the world, many universities have experienced similar issues and have addressed these issues by breaking down the walls between schools and combining them under larger umbrellas.

Organization and Governance – School structure		<i>Example</i>
Large universities worldwide are breaking down walls between departments and combining schools under larger umbrellas		
	Description	Benefits
 <p>Oxford University</p>	<ul style="list-style-type: none"> • Creation of 4 large divisions (schools) bringing together 200+ small departments • Centralization of research funding and allocation • Introduction of shared services (labs, assistants, libraries, administration) 	<ul style="list-style-type: none"> • Reduction of administrative burden at the department level • Increased collaboration between old departments, facilitating interdisciplinary research • Dedicated leadership at the school level, developing coherent strategies
 <p>University of Southern California</p>	<ul style="list-style-type: none"> • Creation of areas of focus (communications, life sciences, arts, urban paradigm) combining departments around major issues relevant to Southern California and leveraging USC strengths 	<ul style="list-style-type: none"> • Increased interdisciplinary collaboration between departments and schools... • ...focused around areas of current research strengths at USC and importance for California
 <p>Korean tertiary education system</p>	<ul style="list-style-type: none"> • Preferential treatment (funding, resources) to select disciplines based on relevance for Korea's current and future needs; levels of employment and preservation of Korean heritage 	<ul style="list-style-type: none"> • Increased quality and focus on fields relevant to Korea at undergraduate and graduate levels • Reduced overall administrative burden • Higher employability of graduates

Source: Press clippings, Interviews,

Overall, these universities have been able to capture many benefits as a result:

- Increase interdisciplinary collaboration between departments and schools to solve complex world problems.
- Increase quality of research by focusing on priority fields and areas of strength.

- Increase employability of graduates by focusing on highly demanded fields and reducing duplication in curricular offering.
- Increase efficiency in decision-making by pushing down decision rights.
- Reduce overall administrative burden and improve management.
- Achieve higher economies of scale by introducing shared services.

Strategic implication for KSU: KSU should combine colleges under larger faculties, and combine sub-scale departments under larger ones.

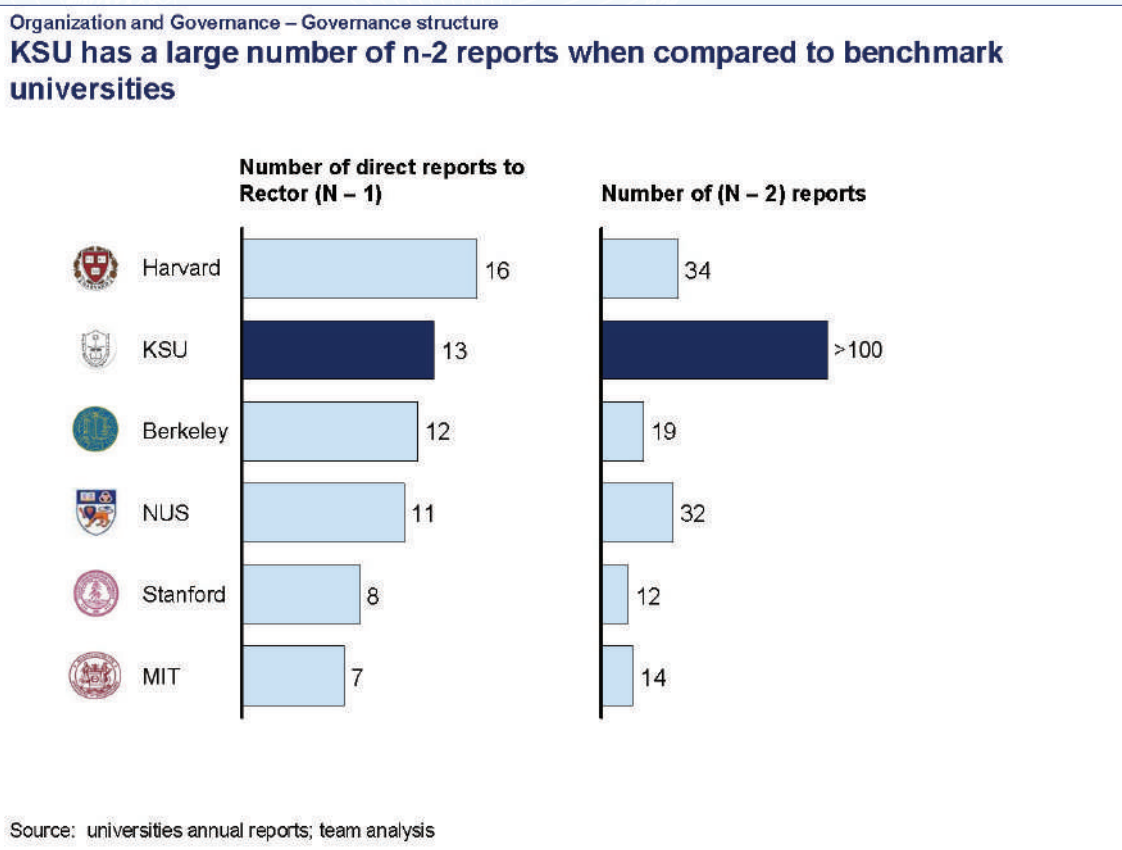
Organization structure of the university



KSU has a large organizational structure directly and indirectly reporting to the Rector. KSU's Rector has 14 direct reports and his Vice-Rectors have over 100 reports. Compared to the benchmark, the number of n-2 reports is very high.

Based on organizational benchmarks, KSU's organization is sub-optimal at five levels

- Dilution of Rector's strategic focus due to a high number of direct reports;
- Lack of clarity in decision rights, leading to multiple points of accountability (as seen further below in this section).



- Lack of clarity in roles and responsibilities leading to duplication, inefficiencies in task execution;
- Lack of management focus and slow decision making due to the large size of the management team;
- Lack of clarity in what the strategic functions of the University are. The accreditation report states that “with constant changes, additions in deanships and in functions, there appears to be considerable role confusion”. Furthermore, the report “recommends a review of the senior management structure and the establishment of clear lines of authority and accountabilities”.

Strategic implications for KSU: *KSU should optimize its organization structure and reduce the size of its overhead.*

Beyond the organization structure, KSU’s governance model also hinders effective and efficient decision making at all levels of the organization. Additionally, the university functions in a vacuum, away from external stakeholders who could influence it positively in developing its strategy.

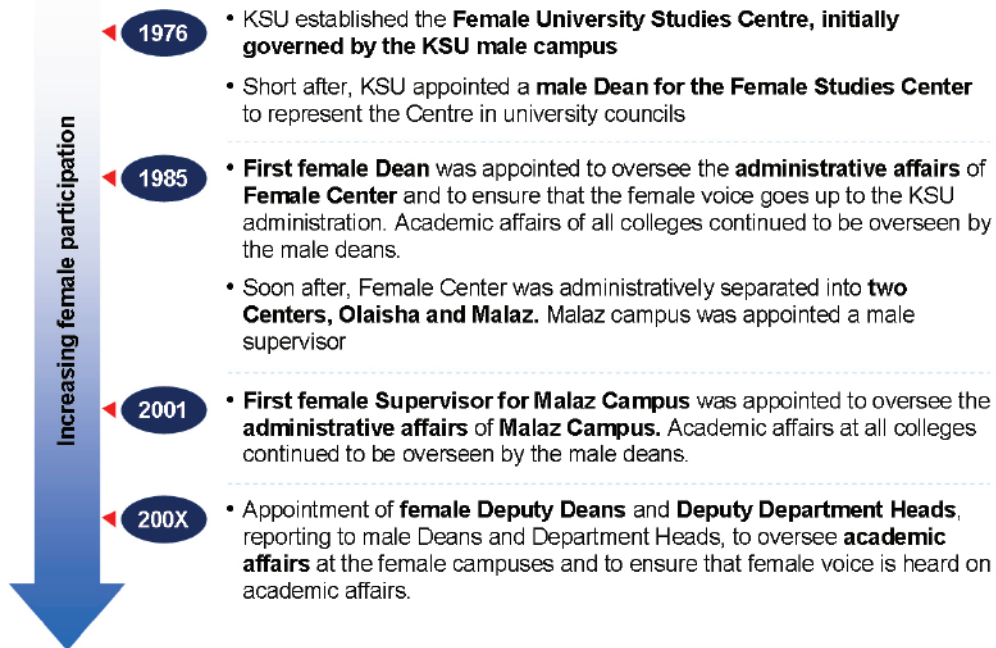
Governance of the female campus

Over the last few years, KSU’s governance evolved to increase female participation. However the governance model being followed, especially on the women’s campus, has some limitations.

From the mid-1970s, when the Women’s University Studies Center was first established, till today, where Female deans and vice-deans help in the governance and leadership of the women’s campus, the role and participation of women has evolved and increased.

KSU's governance has evolved over time to increase female participation

Key milestones in KSU female academic and administrative evolution



Source: KSU interviews, team analysis

Vice Rector for Female Faculty Equity will help strengthen the relationship between female and male sections and ensure equity across the board

Rationale for creating "VR Female Faculty Equity" role

- 1 Enhance communication and collaboration between male and female campuses to improve the quality of education and research
- 2 Empower females with decision making rights and authorities in order to enable effective governance of female campus
- 3 Ensure equity in resources and all other aspects across female and male campuses

Supporting quotes from the Accreditation Report

"The female sections should be thoroughly involved in all aspects of curriculum review, including all decision points"

"The university should consider responding to a clear need for more effective communicating and consultation with the women's sections"

"If this university is to realize its goals, the women's campuses must contribute optimally to the education of graduates, and to research, with women having an equal and equally valued voice in the departments and colleges"

"The authority of the Deans and also the Vice/Deputy Heads of Colleges and Departments is limited."

"The University should accord titles for the deans of the Oleisha and Malaz campuses that reflect their roles as campus directors with full authority for their campuses, and functioning at the rank of Vice-Rectors"

The university should involve the female sections more fully in decision making and in planning, managing and monitoring financial processes"

"We accordingly recommend that all the University committees establish fair and transparent procedures for the election and/or appointment of members giving due regard to gender and area representation"

"The self-study report acknowledges that resources, facilities and services provided are not equitable between the male and female campuses. The Women's campuses, Oleisha and Malaz are less well resourced"

Source: Team analysis, National Commission for Academic Accreditation & Assessment

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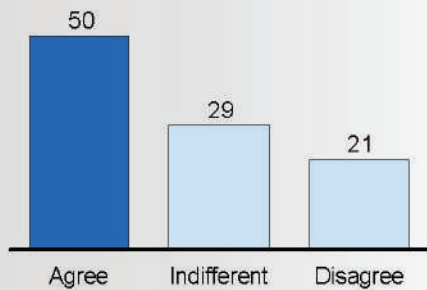
Having said that, women still do not feel they have an equal voice in the running of the University. The accreditation report highlighted critical needs at KSU's female campus in order to deliver teaching and research excellence.

In addition, half of female faculty surveyed felt that the University practices clear gender inequality when it comes to leadership, access to promotions, funding and decisions rights. The accreditation suggest, at the minimum, giving full Dean titles to the female leadership in both the Malaz and Oleisha campus, with similar decision rights as Vice-Rectors.

Females still feel that they do not have equal rights and that their voices are not heard

50% of surveyed female faculty feel that KSU is facing challenges in recruiting and retaining faculty due to gender inequality

% of female faculty respondents*



"Our voice is not heard... We say we only have capacity for 300 students but they give us 600"
- Female Deputy Dean

"I found new TAs in my office the other day. I have no idea who interviewed them or hired them"
- Female Deputy Dean

"We have no decision rights. We are only executors"
- Female Deputy Dean

"We want to have a fair representation in the main committees"
- Female Deputy Dean

"Can you imagine that we have no representation in the Academic Research Council!!!"
- Female Deputy Dean

We had no representation in the University Council until 6 months ago
- Female Administrator

* Based on a sample size of 62 female faculty respondents

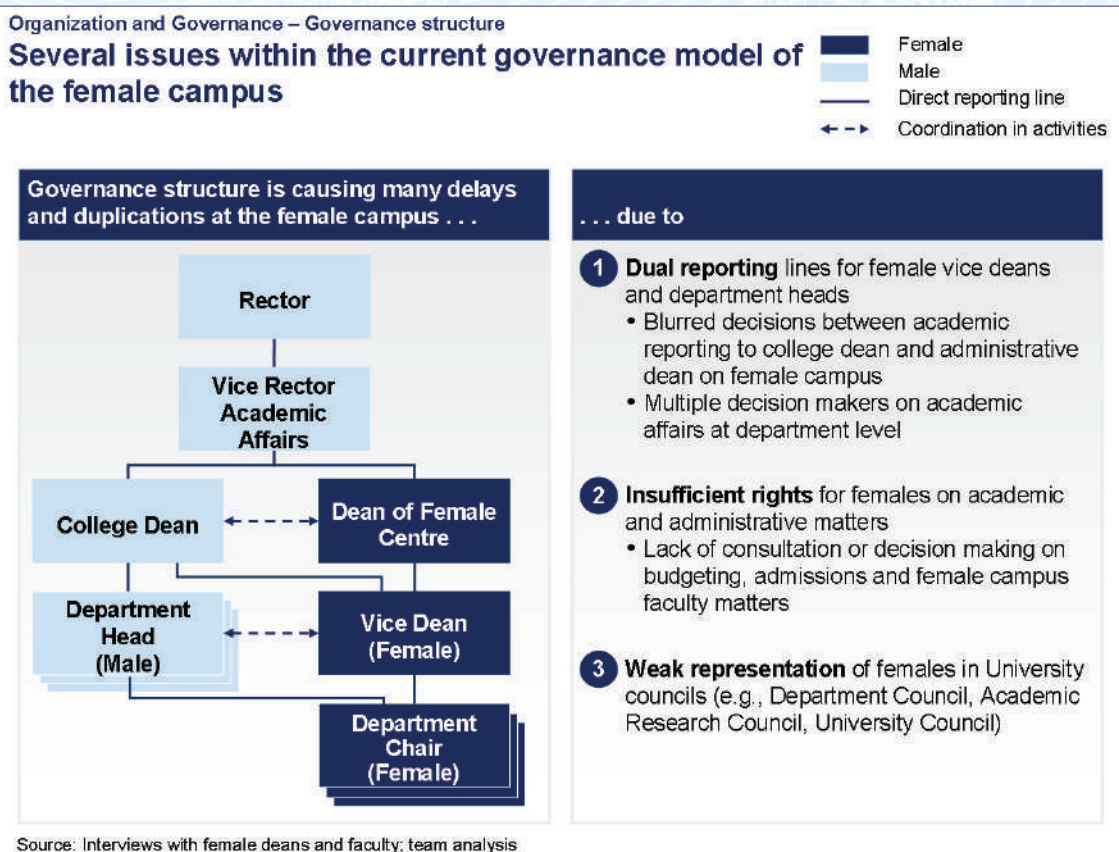
Source: KSU faculty survey, KSU interviews, team analysis

While several issues currently exist in the current governance model of the female campus, the core issues lie along three major dimensions.

- The reporting lines of the female vice-deans and department heads are dual in nature: administrative to their female superior, and academic to their male counterparts. In theory, this delineation should provide enough clarity in role definition, but in reality the lines between academic and administrative are blurred. For instance, approving a conference budget could rightfully be considered either administrative or academic in nature. This lack of clarity results in duplication because requests are submitted to both academic and administrative superiors.
- Decision rights for women are often insufficient. Our interviews with male and female faculty highlighted that many decisions that have impact on both the male and female campuses are often taken in isolation, without consult-

ing the female faculty.

- Female representation on the university decision making bodies is limited. There are currently only 6 women members on the highest council of the university, when women represent 40% of the overall student body.

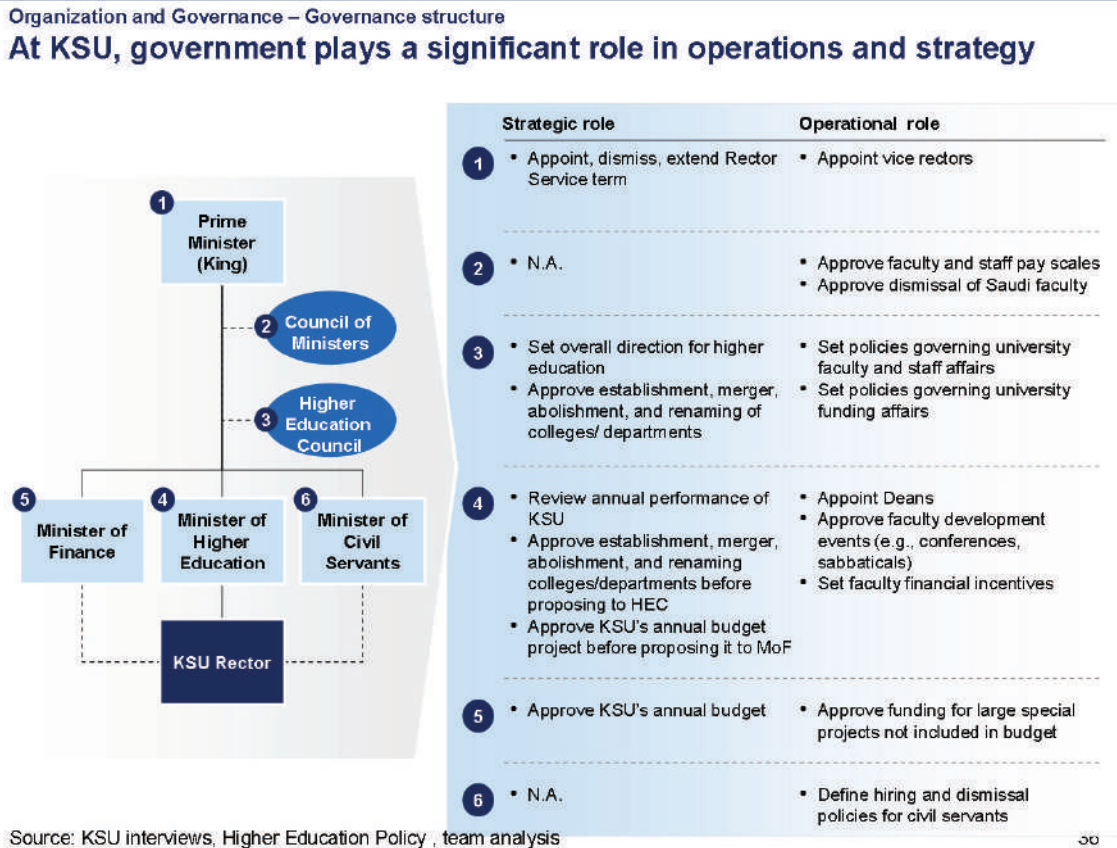


Strategic implication for KSU: KSU should introduce a new governance model for female campus

Decision rights

At KSU, government plays a significant role in operations and strategy. Many strategic and operational decisions lie at the level of the Prime Minister, the Council of Ministers, the Higher Education Council or various Ministries (Fi-

nance, Civil Servants, and Higher Education).

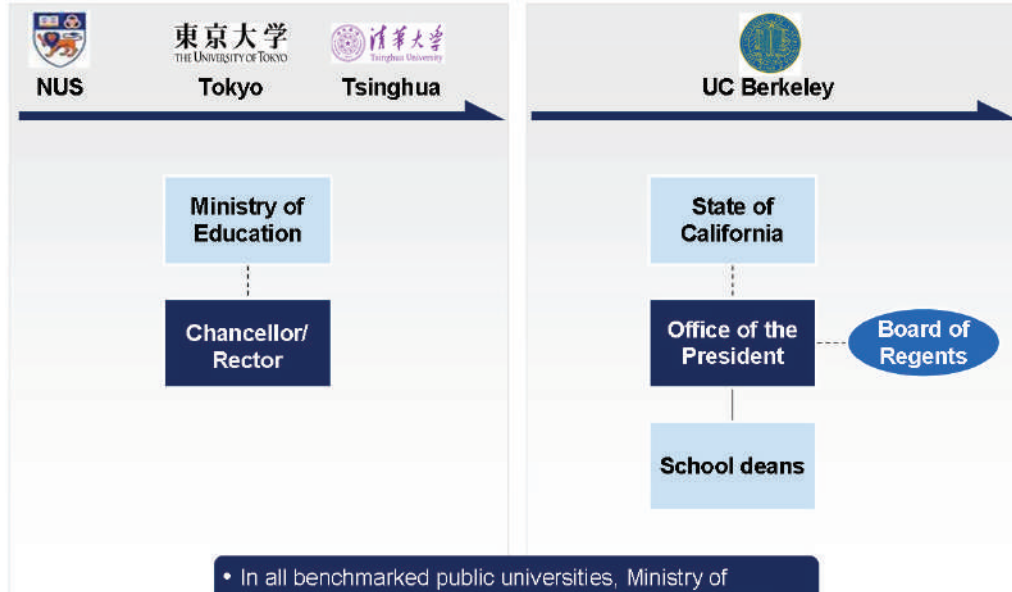


All public universities have some level of government involvement, but this role is often focused around strategy with little say in the university's operations, and most often limited to the ministry responsible for higher education, rather than all ministries.

Broadly, the role of government can be categorized in four major role types with increasing involvement levels: funder, regulator/funder, overseer and tight controller. Although there are no right or wrong models, there is a common thread emerging from this review: there are no universities worldwide that achieve significant outcomes without some level of freedom from governments. Even a very controlled public university such as Tsinghua has gained some freedom to operate in its priority areas (e.g. School of Business).

Organization and Governance – Governance structure

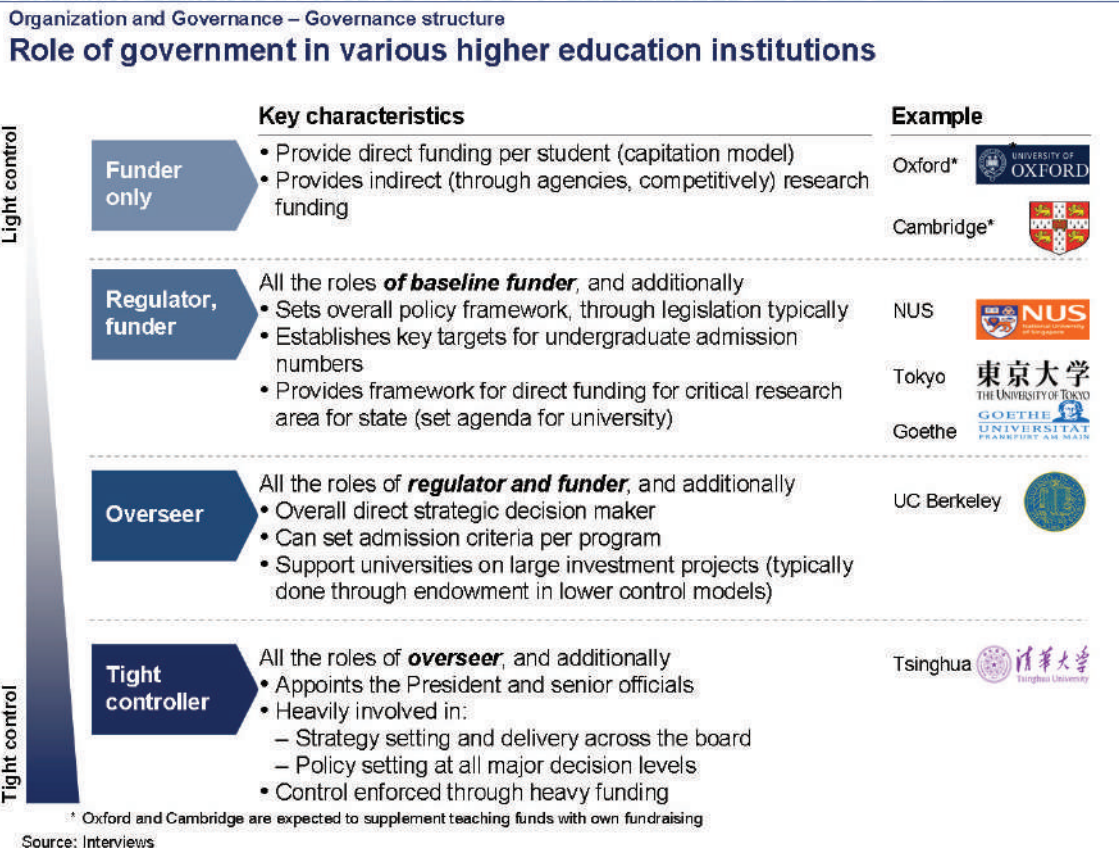
All public universities have some level of government involvement . . .



- In all benchmarked public universities, Ministry of Education plays a role. However, the Ministry's role is typically limited to strategy with little say in the university's operations
- Other ministries are not involved in any decision-making

Source: university interviews; team analysis

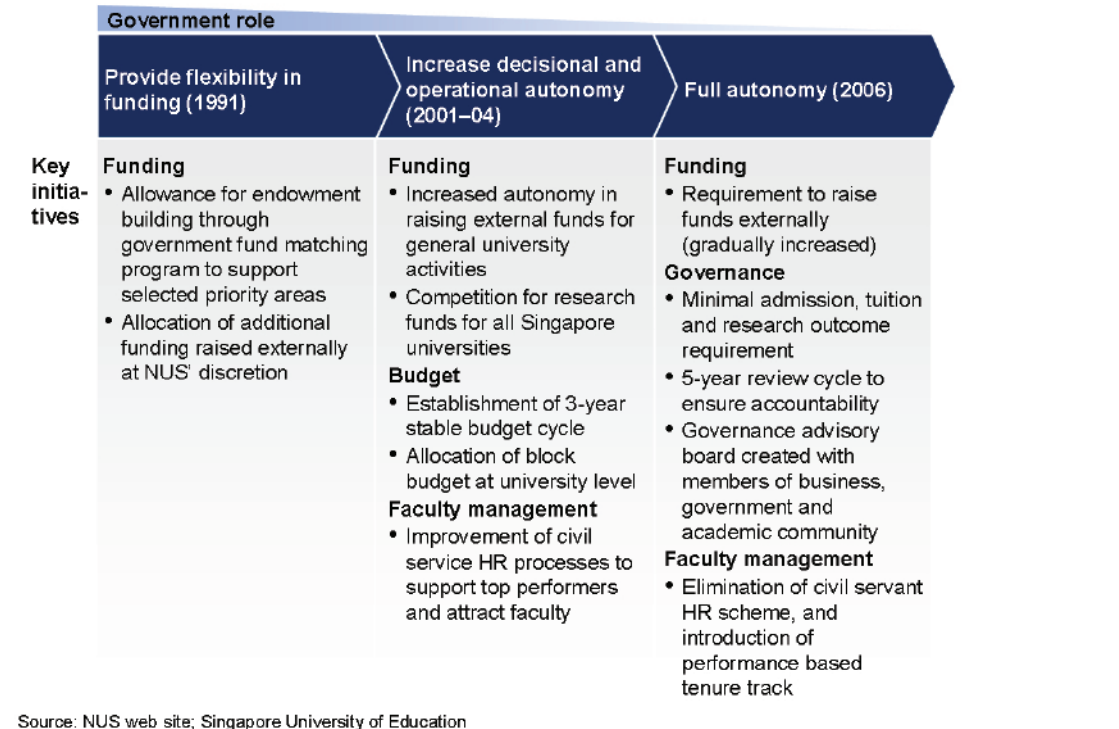
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Over time, an increasing number of public universities are moving towards a more autonomous status, enabling them to gain additional flexibility across many dimensions:

- Ability to adequately manage faculty performance by moving away from the civil servants model;
- Ability to attract top faculty, and adjust compensation to market rates, to remain competitive in a quickly changing global landscape;
- Ability to select areas of scientific focus;
- Ability to obtain long term stability in funding, and bridge the funding shortfall through varied sources of funding.

National University of Singapore followed a gradual path to increased autonomy



Source: NUS web site; Singapore University of Education

One such example is the National University of Singapore (NUS). NUS followed a gradual path to increased autonomy by initially gaining flexibility in funding, followed by increased decisional and operational autonomy, and finally obtaining an arrangement for full autonomy nearly 15 years after starting the journey.

The autonomy obtained was gradual, and allowed for flexibility in funding sources. This was a clear message to the university to start building ties with the industry the university served with their research and students. As this model become more prevalent within Singapore and NUS demonstrated an ability to govern those private funds, it was granted further autonomy around block funding (no items in the budget), and additional predictability in budget over time, allowing for a longer planning process. Significantly, a first step was taken to make the faculty hiring processes more flexible. Ultimately, this

led to a much more autonomous model along the following five areas: governance, funding and finances, student admission, intake planning and human resources. It also led to further decision rights for the university as NUS was made accountable for these new rights.

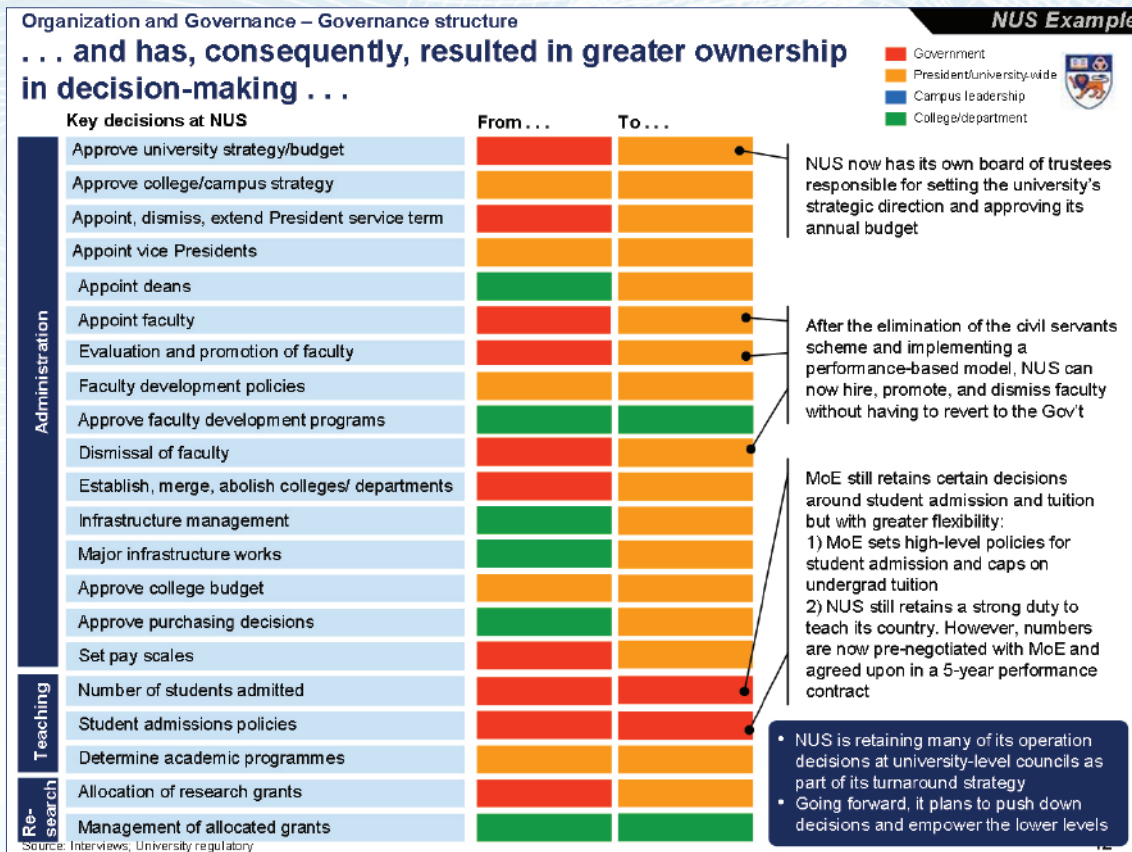
Corporatization of NUS in 2006 has allowed for greater autonomy in five areas . . .



Scope of NUS autonomy

Governance	<ul style="list-style-type: none"> • University Council and leadership is expected to take on greater responsibility and ownership of key decisions affecting the university • University must set clear strategic directions and priorities, and allocate resources effectively
Funding & financial autonomy	<ul style="list-style-type: none"> • Government will remain the principal source of funding, however, university should actively seek alternative sources of funding to support its priorities • Ability to decide priority areas of funding and determine tuition fees, including the option of differentiating tuitions for different courses
Student admission	<ul style="list-style-type: none"> • In 2004, NUS was given flexibility to determine the profile of 10% of its intake using independent criteria • There is scope to allow for greater autonomy in student admission over time by increasing the percentage of independent admission
Intake planning	<ul style="list-style-type: none"> • Graduate manpower produced by the university has to abide with the National output targets for disciplines of the university to ensure that graduate manpower produced meets the needs of the economy • Flexibility to take in foreign students over and above the output targets on a full-cost basis
Human resources	<ul style="list-style-type: none"> • Full autonomy over appointment and promotion of all faculty, including full professors • Full autonomy to determine the remuneration packages, including welfare benefits and performance bonuses for all faculty and staff

Source: Singapore Ministry of Education; team analysis



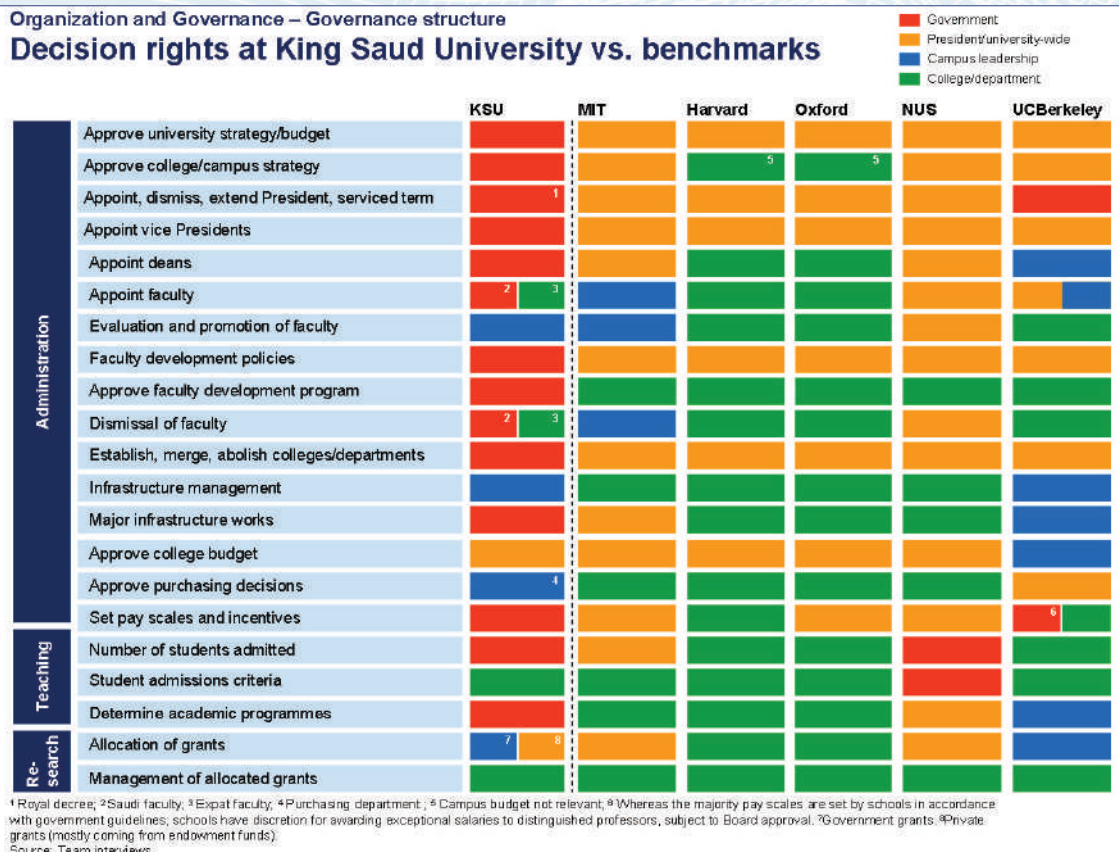
The additional autonomy for NUS was also supplemented by a greater accountability through a performance contract that enabled the Ministry of Education to ensure that the strategic direction taken by the University was in-line with the needs of Singapore. It consisted of the following:

- Policy agreement formulated by the Ministry of Education setting the strategic framework and broad boundaries for NUS to continue receiving government funding.
- Performance agreement formulated by the University, articulating strategic goals and desired outcomes over a 5-year period in terms of research, teaching, community service and organization in return for lifting regulatory controls.
- Quality assurance framework where NUS submits an annual performance

progress report and the Ministry validates the University's performance through an external review committee.

KSU is the most centralized of all the universities benchmarked, with decisions lying at the level of Rector or, as seen previously, outside the University's control leading slower decision making, and restricting the flexibility and nimbleness of the university. Centralized decision making typically leads to very slow decision making, from most trivial elements to more complex decisions. The following present only a few instances, and is not meant to be an exhaustive list:

- Allocation and usage of research grants: Due to decision rights lying at the Ministry level, using a grant once it has been approved require multiple authorization of 200,000 SAR maximum each time, on a process that can take 4-6 months. Faculty point that a SAR 1,000,000 annual grant is never used because the delays in the process don't allow more than 2 approvals of 200,000 SAR.
- Approving a conference requires approval from the Ministry, often resulting the faculty not being able to the conference because approval takes long.
- Closing, opening and renaming departments required, by regulations, approval by higher instances. KSU's attempts to close obsolete departments has been difficult to implement.



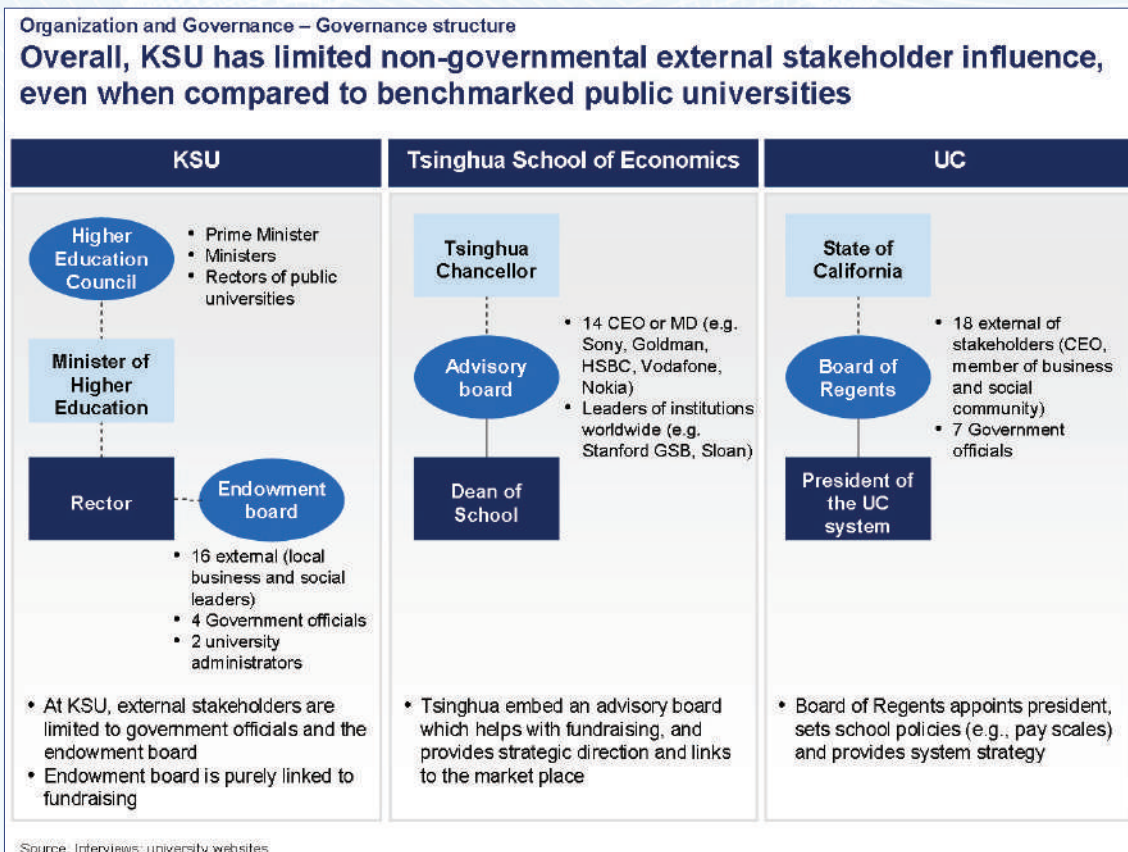
The concentration of decision rights at higher levels of the University governing structure slow down the process along three major dimensions:

- Control over budget, even on the smallest decisions (purchasing, small increases in salaries);
- Transparency and control over faculty and staff recruiting, leading to long lead times for hiring faculty and lack of quality control on support staff;
- Approvals for faculty professional development; since this required Ministry level approval the KSU faculty attended only a very few international conferences.

Strategic implication for KSU: KSU should push decision rights lower down the organization. and enter into a performance agreement with Government whereby it has greater flexibility in decision rights in return for higher accountability.

External stakeholder involvement

Decision-making at KSU could more fully embrace external stakeholders. Outside of the endowment board, which focuses mostly on fundraising activities, and early twinning programs, KSU does not engage external stakeholders, and as a result is not able to capitalize on the potential positive impact these stakeholders could play within its organization.



- Impartial strategic input for the university direction; providing an external, independent perspective of where the University stands.
- External perspective, by providing key contacts, influencing leverage in the community and the industry.

- Sources of fundraising, to support special initiatives.

Compared to benchmarked universities, KSU has limited non-governmental external stakeholder influence, even compared to public universities.

***Strategic implication for KSU:** KSU should establish faculty and university level advisory boards to help guide strategic priorities for research and teaching. This is in line with the recommendation of the accreditation report, which states that KSU needs to “establish governing boards with a significant number of external members who can provide high level policy advice to the external members and combine this with planning in the interests of the broader community”.*

Governance and Management → Funding and resources allocation

Sources of funding

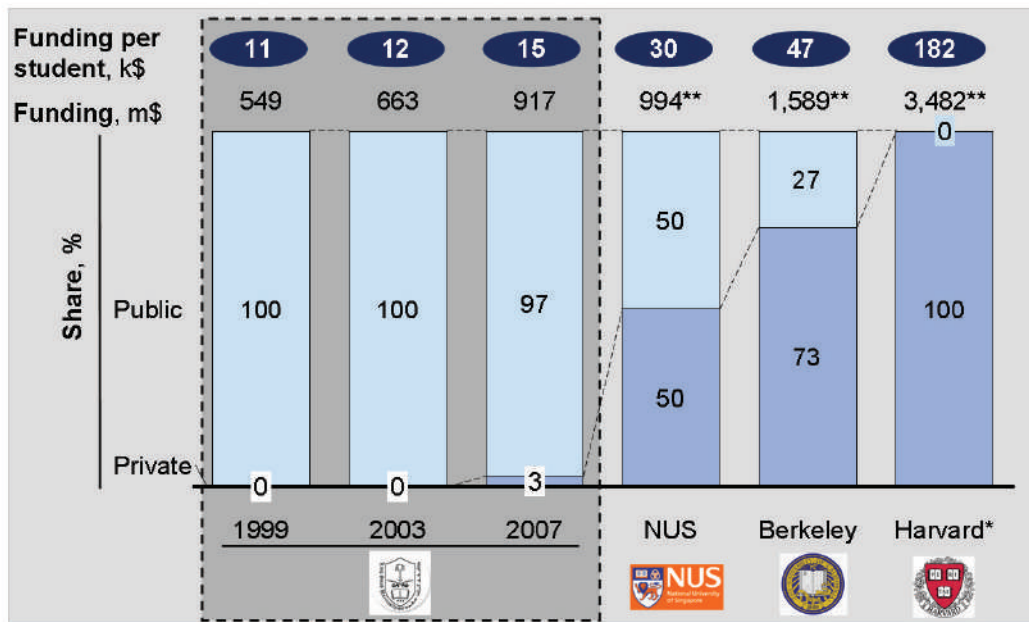
KSU relies heavily on funding from the Government. In the academic year 2006-07, 97% of the funds of USD 917m were sponsored by the Government. KSU has always been funded by the government; but over the last 18 months, the institution has begun an endowment drive to augment its funding and allocate it to priorities. Nevertheless, the level of funding per student is relatively smaller, 50%, compared to leading public institutions worldwide such as NUS. This addresses two types of issues: the public funding per student is smaller than those of benchmarks and the private funding is spread too thinly across too many students.

In contrast with other universities, the 3% share of private funding is still considerably low. As depicted in this exhibit, the three benchmark universities, UC Berkeley, NU Singapore and Harvard University, get at least 50% of their funding from private or industrial sponsors.

Even if public funding is guaranteed by the Government and is therefore a safe revenue stream for KSU, there are some advantages derived from private sources of funding. First, it gives KSU more flexibility for decisions regarding

fund allocation independent of the perspective of governmental institutions. Second, it allows using the money to initiate an endowment fund that could ensure long term sustainability through a continuous income stream from endowment investment. Finally, the likelihood of engaging in activities that are demanded by the market is increased, which might also have positive impact on teaching and research.

KSU has been successful in raising private funds, but is still trailing benchmarked universities



* Does not include funding for specific sponsored research projects given by public institution
 ** 2007-08

Source: Universities' Annual/Financial Reports; KSU budget report; team analysis

When analyzing the sources of income at the other universities, one can clearly see that there are basically four main sources:

- Tuition paid by students: variable across institutions worldwide
- Contracted research solicited by the government or corporations;

- Gifts for current use made by alumni or corporations: representing 5-10% of the total budget
- Income from the investment of the endowment fund: this fund encompasses money contributed by alumni, but especially large donations of individuals or foundations. These funds can have a volume of about USD 17 billion at Stanford or USD 35 billion at Harvard and contribute up to USD 1.2 billion to the annual budget.

To raise these funds usually campaigns with high publicity are used. Some successful examples are the campaigns launched by Oxford University in 2008 and ‘The Stanford Challenge’ started in 2006 in order to raise USD 4.3 billion. Until the end of 2007, Stanford had already raised USD 2.3 billion.

KSU’s endowment initiative is commendable as it has raised SAR 1 billion over the last year. It differs from the traditional model of endowment where monies are donated from major donors and alumni. The pledges, in this case, will allow the construction of the University Towers, a real-estate development project that will generate, over time, rental and other business income which will support initiatives at KSU. The ‘University Towers’ project includes 9 towers along the university main campus. The income for KSU will come from leasing the office and hotel space to third parties. The overall budget for the ‘University Tower’ project amounts to SAR 3,000m and is expected to bring return of 12% annually through the rent.

Overall, the goal is to raise USD 25 billion (~SAR 90 billion) within 10 years. These would be initially invested in three more real estate project close to the main campus.

Strategic implication for KSU: *KSU should diversity its sources of funding in order to gain more sustainability and flexibility in the allocation of funding.*

Allocation of funding

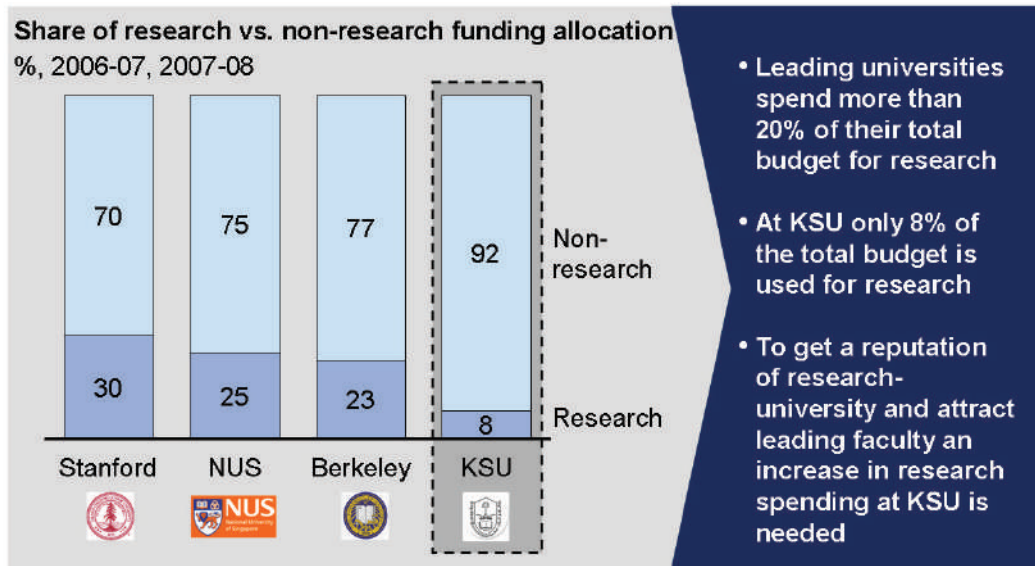
Besides the question of how to raise funds, their allocation needs to be analyzed as well. When comparing KSU to other universities the share that is spent on research is comparably low.

While at KSU only 8% of the total budget is spent on research, the benchmark universities spend between 23-30% of their budget directly on this purpose. Another indicator of the lack of money spent on research is the impact on faculty publication. On comparing KSU with the top 10 US universities, we find that it is trailing significantly behind the others in terms of numbers of citations of their own papers versus citations of the leading universities. This is true for all schools and although the School of Medicine performs best, it still has more than seven times less cited papers in comparison to the top ten US schools.

To boost their research impact, most universities focus on some priority fields such as Stanford does campus-wide in 'The Stanford Challenge'. Stanford chose to focus on six, mostly interdisciplinary, research areas, such as initiatives on: Human Health, Environment and Sustainability, Arts and Creativity, International, K-12 Education and other multidisciplinary research across the university.

A higher share than research spends in the annual budget of KSU is the allocation of incentives to students. This amounts to 15% of the budget. At most leading universities, students have to pay tuition and if money is given to them as financial aid, it is done so according to their needs (directly correlated to the family income) or based on merit. In recent years, renowned universities including Harvard, MIT and Stanford have moved towards expanding their financial aid programs so that families of students who have been accepted based on their talents, need only to contribute a smaller share to tuition or room and board. This extended financial aid is given to students who fall in a given family income range, which has been generously set. In contrast, at KSU, every student receives the same amount of incentives (~900 SAR per month), irrespective of need or academic performance.

Compared to benchmarks, a small fraction of budget is allocated to research



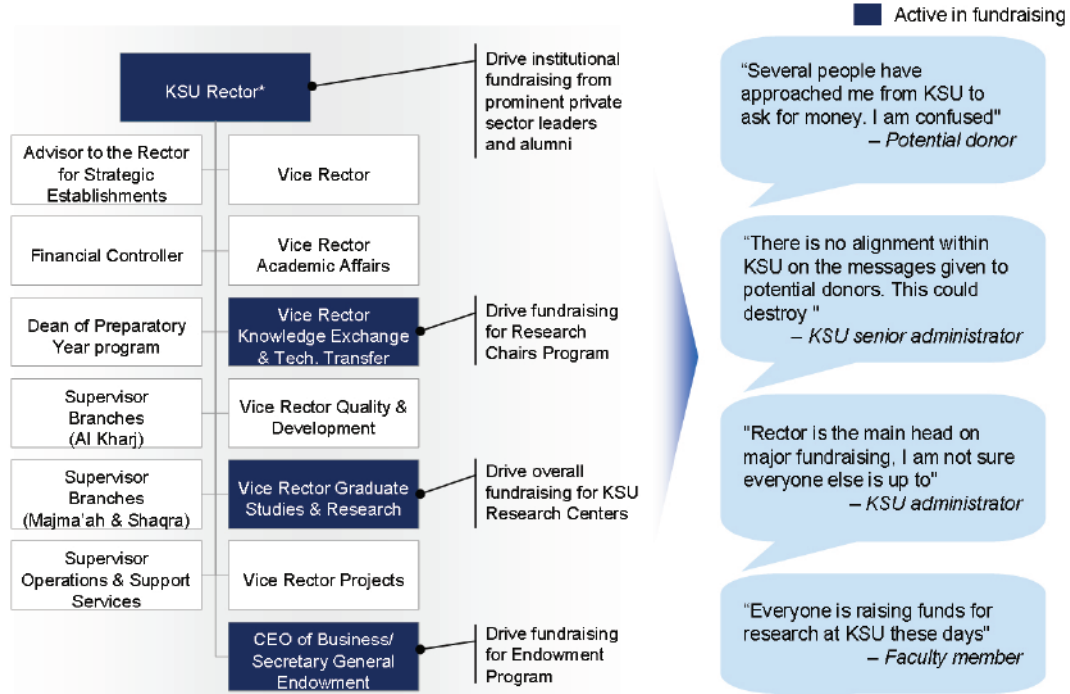
Source: Annual reports; team analysis

***Strategic implication for KSU:** KSU should allocate a higher portion of its funding to research, while simplifying the actual process of allocating. It should also revisit the allocation of incentives to students and their criteria.*

Organization set up

When we examine the organizational set up of the fundraising office at KSU, we find that responsibilities are not fully delineated yet. There is not a single office in charge of fundraising, but the Rectors, the Vice Rector Knowledge Exchange and Tech. Transfer, the Vice Rector Graduate Studies & Research and the CEO of Business/Secretary General Endowment simultaneously drive all efforts to collect funds. These policies have been perceived as confusing by donors and even voices within KSU are demand more alignment on this topic, as also outlined in the exhibit.

Multiple individuals/departments drive fundraising at institutional level with little coordination resulting in inconsistent messages to donors



"Several people have approached me from KSU to ask for money. I am confused"
– Potential donor

"There is no alignment within KSU on the messages given to potential donors. This could destroy "
– KSU senior administrator

"Rector is the main head on major fundraising. I am not sure everyone else is up to"
– KSU administrator

"Everyone is raising funds for research at KSU these days"
– Faculty member

* Also reports to the Rector is the "Advisor and Office Manager of Rector"

Source: University website; team analysis

At other universities, the fundraising office is usually centralized. For example at Stanford, there is the VP for Development, who reports directly to the President, in charge of planning, coordinating and managing the procurement program for gifts (both current use and for endowment funds). This individual works closely with the President, the Provost and the deans to define the requirement of the University. Having the central coordination at some universities, including Stanford, the department can also initiate fundraising efforts (approved by the VP for Development) if there is a high chance of appealing to some group, e.g., the Business Schools are usually very good at raising funds for themselves.

Looking at US universities with large endowment funds, the fund is usually management by a legally independent entity, e.g., Harvard Management Com-

pany managed the fund for Harvard University. These entities usually consult with the university about long term goals and the overall risk of the investment but have a high profile investment board making the financial decisions. Comparing the three universities with the highest endowment funds (Harvard, Yale, and Stanford) they have in the past usually outperformed both bond and stock market.

As mentioned earlier, KSU recently set up its endowment. This endowment will be invested in the ‘University Towers’ real estate project. That space will be leased to third parties to generate yearly returns. To administer the real estate project, KSU plans to set up a managing entity, which will be separate from university with its own bank account. A general assembly including a broad range of participants will be in charge of managing the endowment. This assembly will be overseen by a ‘board of overseers’ consisting of senior experts. The detailed planning of organizational setup is still in progress.

***Strategic implication for KSU:** KSU should create an independent body to manage and build its endowment.*

Looking forward

The diagnostic has highlighted areas of improvements for KSU along the dimensions of a great university. The implications are numerous along each of the input dimensions of the “elements of a great university” framework

- KSU will need to continue encouraging **quality** in its **people processes**, without compromise.
 - Attract, develop and provide an environment propitious for **faculty** to innovate and improve the research and students outcomes.
 - Attract the **best students** in the Kingdom and provide them with the skills to be successful in job market.
 - Provide development opportunities for **quality staff** to contribute to the university.
- KSU will need to solidify its **teaching and learning** methods.

- Design **curriculum** adapted to the needs of the marketplace.
- Support faculty in improving **teaching methods** in order to embed development of soft skills and language for our graduates.
- Tailor our courses **to the needs and quality of students**.
- Further strengthen the **preparatory year** program.
- Support in-class learning with an adequate **outside-of-classroom** environment with stronger career counseling, improved soft and hard infrastructure, and extracurricular opportunities.
- KSU will need to continue building on the current **research environment** and strengthen the **graduate program**.
 - Provide an internationally competitive funding and an overall **support environment**.
 - Adapt faculty management to celebrate the various strengths of faculty and address the needs of students in different colleges through **adapted performance based tracks**.
 - Leverage a stronger graduate program, to inspire the **next generation** of Saudi-trained academics.
- KSU will need to adapt its **governance** and **structure** to facilitate and drive the transformation plan.
 - Push **decision rights** lower in the organization while making each leader more accountable for their decision.
 - Simplify and clarify **the overall organization structure**.
 - Leverage the strong alumni network and the reputation of KSU **by involving external stakeholders**.
 - Clarify the **female governance** model.
 - Negotiate a **performance contract** with the government in order to become more nimble while increasing accountability.
- KSU will need to **diversify** its sources of funding, to support its priority areas and improve the management of its endowment.

As the accreditation report states, “building stronger and enduring connections across the various parts of this large and diverse institution will offer a much richer, more complex agenda for action and accountability”. At the base of this will be the creation of transparency across all relevant dimensions of outcomes and inputs.

At the same time, it is important to realize that no university can become distinctive on all dimensions all at once. Over time, the journey will hopefully take KSU from strength to strength until it displays quality standards across all dimensions.

To this end, KSU cannot do everything at the same time, it needs to:

- Prioritize the elements of its change program in order to ensure management focus, but also rally all stakeholders internally and externally around the **strategic objectives**. These objectives will be, at some level, the pillar of the strategic plan.
- Sequencing these strategic objectives and their implications for the funding needs over time will also be important since KSU’s awareness of its internal and external environments will help achieve all its objectives over time.



« **Strategic objectives** »
Introduction



4. Strategic objectives Introduction

Introduction

The diagnostic section highlighted areas of improvements for King Saud University along the dimensions of a great university. The implications were numerous – several opportunities and challenges. It is the purpose of a strategic plan to provide a framework for addressing these implications through a set of decisions and recommended actions. Towards this end, we have selected nine strategic objectives that are critical to ensuring King Saud University's journey to a world-class research institution. The following section will present the case for each of these strategic objectives, as well as a set of recommendations supporting them. Below is a summary of each objective.

- **Strategic objective #1 – Good everywhere; Great in focus areas**

(Strengthen our comprehensive university with academic areas of research and teaching excellence)

King Saud University offers a wide spectrum of disciplines and areas of study. The variety of programs it offers has historically been its strength. Unfortunately, few programs beyond the health disciplines have reached any level of national or international distinction. If King Saud University is to achieve its aspiration of becoming a leading global university, it needs to achieve two goals. First it must improve its performance across all disciplines. Second, KSU needs to achieve distinction in a limited set of selected areas through increased focus on a few disciplines.

- **Strategic objective #2: Distinctive faculty**

(Attract and develop distinctive faculty)

A higher education institution is only as good as its faculty, and the conditions it creates to drive their performance. KSU should improve its faculty recruiting processes and provide the right environment (funding, support, performance management) to drive the expected performance levels.

- **Strategic objective #3: Less is more**

(Reduce KSU's student volume, increase the share of graduate students and raise entry requirements)

The size and mix of the student body (e.g., the ratio of undergraduate to graduate students) can have a significant effect on overall performance. In the case of King Saud University, with currently more than 110,000 students, the size is striking. Most of these students are undergraduates. This results in management challenges due to the sheer size, difficulty in achieving optimal faculty-student ratios, and a student mix not conducive to driving research activity. Reducing the number of students to more manageable levels (while increasing selectivity based on performance and thus overall student quality), and increasing the graduate body must be a priority for KSU.

- **Strategic objective #4: Stronger graduates**

(Enable KSU students to learn hard and soft skills throughout their academic life)

The quality of graduating students has a tremendous impact on the reputation of the institution. KSU currently graduates many students with weak soft and language skills compared to institutions in the Kingdom (and variable quality of hard skills). In order to improve the employability of King Saud University students, it is crucial to develop these skills and embed them in students' day to day learning and overall experience. Raising the quality of English should be done without compromising the cultural identity of the institution. Along with Strategic Objective #3 strengthening the preparatory and core years in delivering a full set of skills will improve the outcomes on graduates.

- **Strategic objective #5: Building bridges**

(Build bridges among KSU constituencies and externally with local and international groups)

King Saud University has already made some progress in connecting to the broader community. Still, these worthy efforts are not institutionalized or centrally managed and can benefit from a more comprehensive and coordi-

nated approach. Additionally, KSU will continue strengthening its links with the local community and building further bridges internally to improve cross-institution collaboration and inter-disciplinary research.

- Strategic objective #6: Supportive learning environment

(Create an engaging environment at KSU for faculty, students, and staff)

The quality of a university experience is not only dependent on the formal offering of the academic institution but is also shaped by the environment in which the learning and research experience takes place and how the members of the academic community engage with the society at large. It is important to note the physical infrastructure of the campus is impressive and will improve with the new Female campus construction underway. Still, given high levels of dissatisfaction from faculty and students alike in this area, KSU must continue improving its overall environment, building on existing efforts.

- Strategic objective #7: Sustainable future

(Build KSU's endowment and diversity sources of funding)

Leading universities, including public ones, have a diverse set of funding sources. In order for KSU to achieve its strategic goals it will need to execute several transformation programs, many of which will require significant resources. KSU will need to ensure the right amount and stability of finances for these efforts.

- Strategic objective #8: Flexibility and Accountability

(Create a performance contract between KSU and the government)

In order to drive significant change through its bold strategic vision, King Saud University will need to have the ability to make and execute tough decisions, act fast and firmly, be responsive to a fast-changing and competitive global knowledge economy, and change many of the current status quo processes and systems. This will require a higher degree of freedom than is currently available to KSU in governing, operating, and ultimately changing itself. This can be achieved through a partnership with the government based on funding and more flexibility in return for key outputs and metrics for

which KSU can be held accountable.

- Strategic objective #9: Organizing for purpose

(Establishing an organization and governance that supports KSU's goals)

Several issues within the current organization (e.g., complex and large structure) and governance (e.g., concentration of decision rights) of KSU are leading to ineffective decision making and inefficient functioning of the University. As KSU embarks on its journey towards becoming a globally leading research-based university, the organization and governance of KSU will need to evolve to enable better decision making and support world-class research and teaching.

As seen above, strategic objectives are the building blocks of the strategic plan; each one addressing either a structural element, an internal or external constituent or striving to establish beacons of excellence that will enable KSU to strengthen all their programs. These objectives can be grouped into 3 layers:

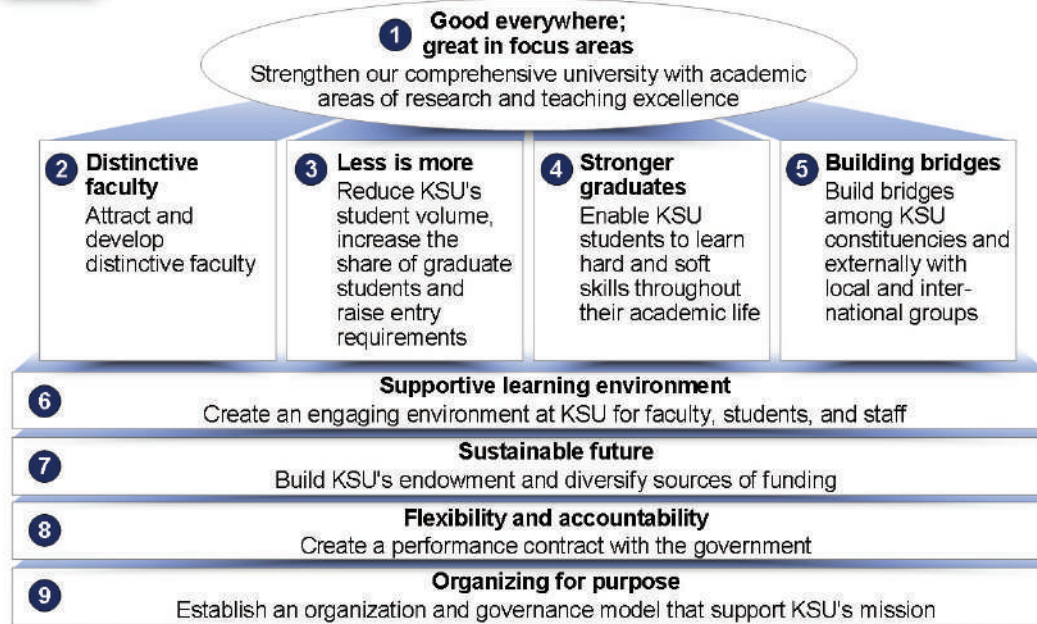
- The pinnacle:

Strategic objective #1 represents what ultimately the institution will be known for at the end of the 20 year plan. It defines the need to create discipline areas that will serve as beacon of excellence and global recognition while raising the quality levels of all other disciplines.

The diagnostic points to nine strategic objectives to support KSU's mission

KSU's mission

To provide distinctive **education**, produce creative **research**, serve **society** and contribute in building the **knowledge economy** and community through learning, creative thinking **environment**, the optimal use of **technology** and effective international **partnership**



Source: KSU Strategic Planning Committee; team analysis

20

- The pillars:

Strategic objectives #2 to 5 recognize the need to specifically raise the quality of faculty, students and interactions within and outside the institution. These objectives directly drive the pinnacle and KSU's aspirations as they address the inputs that are at the core of research, teaching, and overall quality of the institution – faculty, students, and their interactions internally and externally with the broader community..

- The foundation:

In order to achieve all the above objectives, especially the pillars, the institution as a whole will need to adapt, its organization structure and processes, improve the overall environment, and secure more freedom to operate through a government contract and more funding sources. These objectives

cut across all disciplines and enable the pillars, thus contributing to KSU's aspirations in a less direct but not any less significant way manner.

Within each strategic objective, a set of initiatives support the implementation and success of the strategic plan. Three questions guided the choice of these initiatives:

- Can KSU act concretely on the initiative (i.e., is it defined specifically enough)?
- Can responsible employees and resources within the KSU organization be assigned to it (i.e., is it feasible)?
- Does the initiative contribute significantly to achieve the strategic objective?

The following pages detail the strategic objectives and initiatives.

Strategic objective #1: Good everywhere; great in focus areas

King Saud University offers a wide spectrum of disciplines and areas of study. The variety and comprehensiveness of programs it offers have historically been a source of strength. Unfortunately, few programs beyond the health disciplines have reached any level of national or international distinction. If King Saud University is to achieve its aspiration of becoming a leading global university, it needs to improve its performance across all disciplines, while simultaneously achieving distinction in an identified set of priority disciplines. Distinctiveness in priority disciplines implies that King Saud University will need to focus in order to provide special attention in terms of resources and management time. This imperative is motivated and explained further by answering the following questions:

- Why does King Saud University need to focus on a particular set of disciplines, rather than all of them?
- What particular areas should King Saud University focus on?
- How should King Saud University achieve excellence in the focus areas?

Why does King Saud University need to focus on a particular set of disciplines, rather than all of them?

King Saud University needs to focus its efforts on only a few priority disciplines for several reasons:

- Just as in any major transformation program, the resources available to King Saud University are limited (especially management bandwidth and execution skills). An initial focus on a small number of disciplines to drive transformation will ensure effectiveness of these resources and avoid their dilution and eventual failure under undue strain.
- Raising the quality of the offering in a limited set of disciplines can serve as a beacon to the rest of the institution, seeding an overall improvement in quality, creating a virtuous circle of change and transformation.

Successful universities across the world have understood the need for focus and demonstrated it in their actions. They have raised funds, recruited and entered into alliances, all with a more concerted effort on raising the standards of selected priority areas. Examples include:

- The National University of Singapore in conjunction with the Singaporean government identified in 2001 three strategic research initiatives in which to become distinctive. These were: physical sciences and engineering, biomedical and life sciences, and humanities and social sciences. Today, these schools and departments are recognized areas of excellence for the institution.
- The University of Southern California concentrated on four core disciplines in their drive between for research excellence (1992 to today): biomedical nano-sciences, biomedical imaging, clinical and translational health sciences, future fuels and energy (USC Energy Institute).
- KAUST has identified four major priority areas (so called ‘thrusts’) in its launch phase, to build a world-recognized graduate institution: resource energy & environment, biotechnology, material science & engineering, ap-

plied mathematics & computer science.

Beyond the experience of others, interviews with internal and external stakeholders also surfaced the desire for KSU to choose where it will be distinctive. It is true that most thought KSU should continue to be a comprehensive university providing access to a breadth of disciplines for Saudi students. However, the majority also indicated that the University should strive for truly distinctive performance and that without focus achieving this goal will be extremely difficult.

What particular areas should King Saud University focus on?

We used a 2-stage process to identify five high-potential priority areas for teaching and five for research for King Saud University.

First, we used a filter through which all the sectors of the Kingdom's economy were passed using the following criteria: a) the growth potential of the sectors in KSA, and b) global trends in higher education and what leading institutions are focusing on. We then complemented and validated this analysis through expert interviews and a literature search to highlight ideas and focus areas based on the unique needs of the Kingdom in teaching and research at the sector level. We then measured this long list of sectors against three criteria:

- **Demand for Saudi graduates over the next 20 years.** This is greatest in
 - 1- ICT (~90,000 graduates needed),
 - 2- Management (~300,000 graduates needed),
 - 3- Healthcare (~83,000 doctors and ~43,000 other health professionals needed),
 - 4- Education (~200,000 teachers needed).
- **The potential for distinctive local research** leveraging the unique characteristics or needs of the Kingdom (e.g., small genetic variations in the population enabling a rare environment for studies on genetic diseases).
- **The capabilities of the university** compared to other universities locally, and how King Saud University can make a distinctive contribution relative

to other institutions in KSA. For example, Healthcare (where King Saud University is a leader in KSA) and education (where there is no clearly distinctive program in the Kingdom) emerge as big opportunities on this dimension.

This approach helped us shortlist 5 priority areas for teaching.

- **Healthcare:** By expanding the medical training program in partnership with leading global healthcare institutions, King Saud University could help produce the best doctors in KSA,. This is already the training ground for the future leaders of Saudi's healthcare system, and a focus in this area could further propel KSU to a truly distinctive position beyond national and regional recognition.
- **Education:** Highly qualified teachers ('Master teachers') trained through graduate and undergraduate programs, in partnership with MoE and leading global universities could help generate the future leaders of KSA's education system (from principals to ministry employees). The recent and clearly stated government focus (including fund allocation and goals of injecting thousands of new teachers into the system) support this as a focus area.
- **Information and communications engineering:** A high-quality program should be developed in partnership with leading universities and guided by top local employers. As the Kingdom drives towards a more knowledge-based economy, the need for ICT professionals will increase – not only in the ICT sector, but across all sectors as they become more connected and automated.
- **Finance & insurance:** This should be one of the premier programs in the Middle East, developed in partnership with the private sector and leading global universities. This could lead to intensive exposure to the industry for students majoring in Islamic banking. The Kingdom is a regional leader in this field where it has an intrinsic competitive advantage. Moreover, undergraduates with finance and accounting skills will be needed across all sectors as they mature and become more sophisticated.
- **Management:** King Saud University should strive, in partnership with top international universities, to build the strongest business school in the Mid-

dle East, and offer both full and part-time MBAs and EMBA's, and continuous education. This will address a gap in management skills that is not currently addressed by the totality of regional offerings, and provide a program that meets the unique local needs (e.g., family-owned businesses).

In research, we identified 5 priority areas, interdisciplinary in nature:

- **Education:** It would be important to develop suitable pedagogical tools for significantly improving education in the Saudi context, especially in the science and mathematics arenas.
- **Specific areas of healthcare** We have identified particular areas in which King Saud University can make significant contributions to the Kingdom at large, such as diabetes treatment, trauma medicine, and overall wellness.
- **Engineering/Petrochemicals:** King Saud University should build on SABIC's announced investment in an R&D Institute in Riyadh Techno Valley by entering into a focused partnership for furthering groundbreaking research in the petrochemicals sector.
- **Engineering/ Water resources development and management:** Research in areas such as desalination technology and the management of water networks would address an increasing global and local need. Moreover, KSA is well positioned to conduct this research given it globally leading water desalination volumes.
- **Urban Planning:** With the significant push for urbanization in KSA and the GCC as a whole, KSU can be well positioned to take the lead in research on urban planning. The Economic Cities projects, for example, are ambitious and unique projects the likes of which are not found elsewhere.

Of the priority areas identified, education, healthcare, petrochemicals, business and water management are heavily supported by several of the initiatives currently being developed in King Saud University, such as the Research Chairs and the Centers of Excellence. These bold programs could be further built upon to drive the priority disciplines. The exhibits below provide an overview of the investments King Saud University has made in

these programs and that could be leveraged by the new programs under-way.

A number of initiatives have been taken by KSU to launch research in certain areas

Discipline	Supporting research chairs	Other supporting initiatives	Estimated total pledged investment (SAR m)	Present in RTV
Medicine/healthcare	<ul style="list-style-type: none"> 23 Research Chairs, including <ul style="list-style-type: none"> Medical and Molecular Genetics Cardiovascular Disease Children and Adolescent Obesity Prevention 	<ul style="list-style-type: none"> Centre of Excellence in Advanced Medical Technology and Innovation¹ National Centre for Diabetes Research 	265	
Education	<ul style="list-style-type: none"> Research on Education and Learning 	<ul style="list-style-type: none"> Centre of Excellence in Science and Mathematical Education E-learning Institute in Riyadh TechnoValley¹ 	90	
Science/engineering				
Petrochemicals	<ul style="list-style-type: none"> Sheikh Mohamad bin Hussein Al Amoud for Petroleum Research Al Haytham Group for Petroleum and Gas Research in Petrochemicals SABIC Chair for Polymers 	<ul style="list-style-type: none"> Sabic Centre for Plastic Applications Development Centre of Excellence in Engineering Materials Science 	468	✓
Water	<ul style="list-style-type: none"> Prince Sultan bin Abdulaziz for Water Research Prince Bandar bin Abdulaziz for Water Research ACWA power Chair for Water Research Prince Khalid bin Sultan bin Abdulaziz for Water Research Arabian Company for Water and Energy and Research Sheikh Mohamad bin Hussein Al Amoud for Water Research 		40	
Urban planning	<ul style="list-style-type: none"> Saudi Real Estate Co. for Real Estate Development King Abdullah bin Abdulaziz Institute for Research on Developmental Housing (Social Aspect) King Abdullah bin Abdulaziz Institute for Research on Developmental Housing (Architectural Aspect) 	<ul style="list-style-type: none"> Centre of Excellence for Housing Research¹ 	20	
Nano-technology		<ul style="list-style-type: none"> King Abdullah Institute for Nanotechnology 	3	✓
Biotechnology		<ul style="list-style-type: none"> Centre of Excellence in Biotechnology 	25	✓

¹ Pending approval by Ministry

SOURCE: KETT literature, Interviews, Team analysis

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A number of initiatives have been taken by KSU to launch research in certain areas (CONTINUED)

Discipline	Supporting research chairs	Other supporting initiatives	Estimated total pledged investment (SAR m)	Present in RTV
Science/ engineering (contd.)	<ul style="list-style-type: none"> Petroleum/ quarrying <ul style="list-style-type: none"> Geotechnical Engineering Petroleum Research Petroleum and Gas Phosphate and Mineral Processing 		40	
	<ul style="list-style-type: none"> Electrical engineering <ul style="list-style-type: none"> Saudi Telecom Electrical Engineering Power Systems Safety 		30	✓
Business	<ul style="list-style-type: none"> Management <ul style="list-style-type: none"> Corporate Social Responsibility Research and manufacturing in Financial Studies Endowment Research Real Estate Development 		35	
	<ul style="list-style-type: none"> Finance/ banking <ul style="list-style-type: none"> Sheikh Salih bin Abdullah Kamel for Islamic Financial Exchange Mr. Abdullah Salem ba Hamdan for Banking Services Saudi Investment Bank for Investment Al-Jazirz Bankin Investment 		30	

SOURCE: KETT literature; Interviews; Team analysis

Additionally, nanotechnology, where the Kingdom as a whole has focused its resources, can become an area King Saud University can continue developing in order to be a part of the next wave of technological innovation. King Saud University should, however, take a more holistic look at emerging technologies when drawing up the plan to build its next horizon of innovation. While the more urgent focus should continue to be on the priorities that directly address a need in the Kingdom or leverage a unique KSA or King Saud University capability, King Saud University should also consider the following:

- **Virtual and augmented reality:** Computer generated 3-D environments which react to users in a natural way;
- **Computer-brain interfaces:** Allows control of electronic devices through thought or brain pattern detection through invasive or external sensor;

- **Autonomous robots/vehicles:** Vehicles and robots that perform tasks completely autonomously;
- **Medical technology (including nanomedicine):** Advanced technology that supports medical research, diagnostic or treatment;
- **Food technology:** Advanced technology such as genetically modified crops, usage of hormones;
- **Quantum computing:** Computing based not on binary logic but on spectrum logic;
- **DNA-based memory and computing:** Usage of properties of DNA molecules for storage or processing of information;
- **Polymer memory:** Memory technology based on the use of organic polymers;
- **Polymer fuel cells:** Cells made from organic polymers, forming a bulk heterojunction that stores or produces electric current.

It is important, however, to take a thoughtful, long-term view of what will provide the greatest impetus to King Saud University. And with this in mind, King Saud University should only make investments in these areas if they do not interfere with what, at the core, King Saud University needs to do to rise in international standings.

The section below dives deeper in each research and teaching areas.

Initiative 1.1.: Develop areas of excellence – Healthcare

Given the very significant needs of the Kingdom, King Saud University has opportunities to make a meaningful contribution in healthcare on three major fronts:

- Contributing to the expansion of healthcare provision in the Kingdom by training an increasing number of leading professionals and developing research on the expansion of healthcare systems.

- Tackling the overall wellness of the Kingdom by gaining a better understanding of preventive care and lifestyle education and broader issues such as parental education for supporting the healthy development of children.
- Conducting distinctive research on specific ailments of the population of KSA such as diabetes, obesity, infectious diseases and traumas.

The major expansion of healthcare in the Kingdom over the next few years will require that an additional 1,000 doctors be drafted annually, as well as significant numbers of other healthcare professionals. King Saud University, as one of the leading providers of healthcare training in the Kingdom, has a responsibility to participate in this expansion by incrementally enlarging its offering (~10%). However, as important as this expansion in numbers is, King Saud University's value proposition will ultimately lie in successfully training individuals to become high-quality healthcare professionals who are able to lead the expansion and transformation of the healthcare system in the Kingdom. Hence the focus will need to be on quality rather than quantity.

Furthermore, in order to collaborate fully with the expansion and transformation of healthcare provision in the Kingdom and contribute meaningfully, King Saud University should emulate the practice of universities in the US and help create a Public Health School that would contribute to the training of leaders and the development of knowledge of Public Health Systems. Thus these are far lacking in the Middle East, have a long tradition in countries such as the US and universities such as Harvard. King Saud University could partner with leading schools in these areas in order to boost its performance quickly.

King Saud University can also contribute in a meaningful way to research in fields that are of particular concern in the Kingdom and this would fit into its strategy of tackling the wellness of its population. King Saud University has an opportunity to develop and pioneer the appropriate research and training for students on issues such as preventive care of lifestyle diseases, parent's education, and dealing with the social consequences of an ageing population and other issues that impact the health of its population. Adequately trained professionals in Applied Health, Social Sciences, and Physical Education and in Medicine will be required and King Saud University can produce distinctive knowledge in this wide field that, while having a strong cultural component, has not been sufficiently developed in the Arab world and Saudi. This

can build on a joint effort between the newly created Public Health Center and the College of Medicine and all the other Health Colleges could provide an opportunity for the development of distinctive research.

Beyond wellness, the treatment of diseases themselves will still be a very important problem that the Kingdom will need to tackle. For instance, given that 25% of the adult population suffers from diabetes and that genetic variability within the Kingdom is comparatively limited, the development of a diabetes research programme would not only be hugely relevant to the Kingdom but would offer genuinely remarkable opportunities for research. Again, King Saud University could consider its investment as a partnership with leading institutions throughout the world. The Center for Diabetes Research that King Saud University has recently pledged to build/support would certainly help hugely in this endeavor.

A comprehensive Diabetes Treatment Centre will be able to provide opportunity for primary research in the identification of genetic motivation for the disease as well as develop adequate treatments for it, leveraging the opportunities given by the genetic homogeneity of the population in the Kingdom. It must boast a strong PhD program and be fully involved in upgrading the skills of practicing physicians and supporting the prevention of diabetes. Its research should be conducted in partnership with a world-leading centre (e.g., Joslin Diabetes Centre of Harvard Medical School), with heavy interchange of faculty.

Although diabetes is the clearest opportunity in the development of basic research, obesity, infectious diseases and trauma medicine all offer opportunities for research.

The potential lead partners for healthcare include a number of universities around the world, such as Harvard, National University of Singapore, and All Indian Institute of Medical Science.

In addition, a number of other partners will need to be considered as destinations of student exchanges and relations with the leading hospitals in the Kingdom will have to be established if graduates from King Saud University are to have the early opportunity to develop as professionals at the highest level and if the research that King Saud University conducts is to have a direct impact

upon the population of the Kingdom. This necessarily includes starting strong relationships with King Faisal Specialist Hospital in Jeddah and Riyadh.

Initiative 1.2.: Develop area of excellence – Education

Education constitutes one of the key challenges that the Saudi society will face over the next few years. King Saud University should aim to make a difference in society by significantly contributing to the development of education in the Kingdom.

It must strive to do that by adopting a twofold strategy:

- Produce a smaller but highly capable set of education specialists: teachers, principals, etc.
- Contribute to developing a pedagogy specific to the needs of the Kingdom that would support education reform.

In order to develop a high quality program in education, King Saud University should collaborate with the Kingdom's Ministry of Education to design a curriculum that is best suited for its students. At the same time, it should collaborate with renowned institutions to develop a truly world-class proposition for students. This is particularly important given the high degree of transformation required in Saudi's school system (e.g., in TIMSS 2003 and 2007, over 80% of 8th graders showed little to no mathematical skill) and the high demand for skilled teachers (40% of current teachers are expatriate and around 200,000 new teachers are needed over the coming years). King Saud University, while not developing an oversized program that would bridge this gap, should strive to produce a breed of high quality graduates that would be leaders of education in the Kingdom.

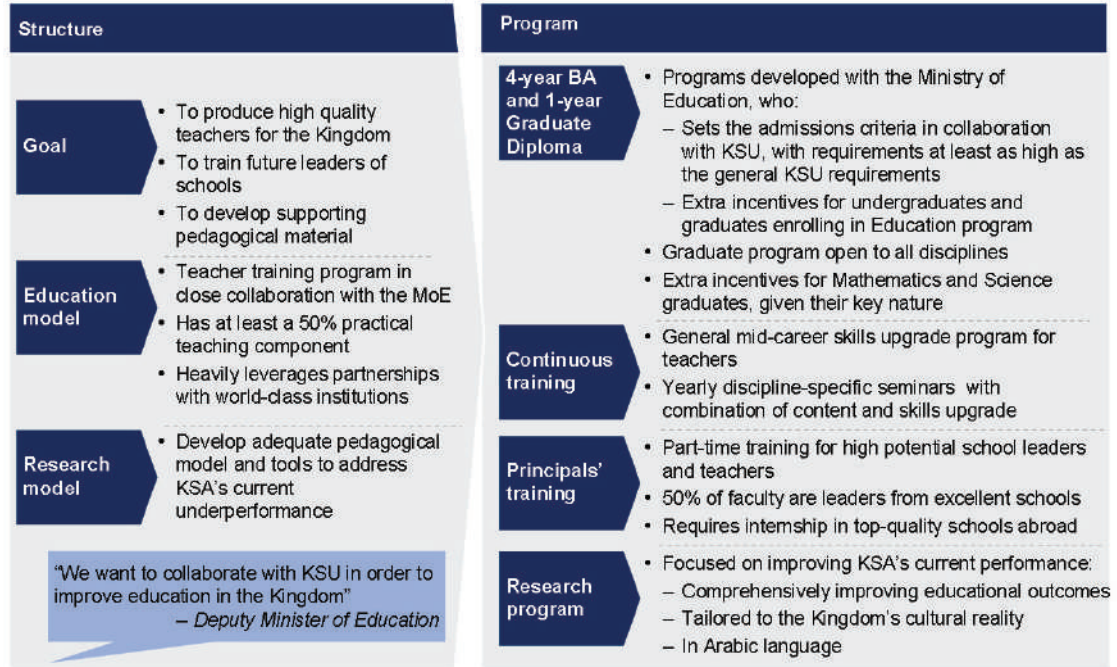
To truly make a relevant contribution, the program should be carried out in close partnership with the Ministry of Education, similarly to the Singapore National Institute of Education (NIE). The latter selects, funds and provides training opportunities for the trainee teachers, as well as collaborates with NIE in shaping the curriculum.

In addition to the opportunities that exist for training high-quality profession-

als, the challenging state of education in the Kingdom warrants specialized research. Stanford made secondary education a priority initiative for fundraising, with research being its focal point to address similar needs to King Saud University. A King Saud University 21st Century Education Centre would offer a high quality proposition in training for teachers at all levels and in relevant pedagogical research tailored to the Saudi context. A proposal for how the program could be structured is outlined next.

KSU could develop a high-quality teaching and research programs in collaboration with the Ministry of Education

KSU 21st Century Education Centre



Source: Team analysis

Partnering with world class institutions such as the NIE , the Graduate School of Education of the University of Melbourne, the Ontario Institute for Studies in Education, the Institute of Education (University of London), the Teachers' College in Columbia University will allow a quicker ramp-up in quality for this centre. The partnership will entail a wide range of collaboration including:

- Participation in the advisory board of the 21st Century Education Centre;

- Collaboration in the design of the curriculum;
- Sharing of faculty and training of King Saud University's in-house faculty;
- Providing students from King Saud University with the opportunity to take courses in partner institutions and experience first-hand the excellent schools on offer in the areas of influence of the partners.

Initiative 1.3.: Develop area of excellence – Management

Our research indicates that there is a critical need for more management professionals. King Saud University can help address this need by:

- Establishing world class, full-time, executive MBA programs.

Employers across sectors have highlighted the need for Saudi managers of high-enough calibers to fulfill the growing needs of the economy. As such, a strong business school with a combination of full-time, part-time and executive programs would help to narrow this gap.

A high-quality business school could provide education for these managers at all stages of their careers. In the case of King Saud University and at least for the full-time MBAs, given Saudi's current context of management, it would provide them with the opportunity to have exposure to international best practices in management. Experiences such as that of the Indian School of Business and the Tsinghua School of Economics and Management suggest that these are best incorporated into the curriculum through collaboration with leading business schools throughout the world. This can be seen in the exhibit that follows.

KSU could leverage partnerships with other schools and industry in order to create a great business school

Globally Successful Business Schools	KSU Business School
Indian School of Business	
Background <ul style="list-style-type: none"> • Offers fulltime MBA and Executive Programs in two locations in India • Non-existent 6 years ago, today is number 15 of the world 	Goal <ul style="list-style-type: none"> • Educate a cohort of ~500 high-potential graduate students a year in a full-time MBA • Develop a high-quality part-time MBA program for training current managers • Launch an Executive MBA program in the Kingdom
Partnership model <ul style="list-style-type: none"> • Strategic Partnership since its launch with London Business School, Wharton and Kellogg • 5+ Professors from each school spend a semester a year at ISB 	Partnership model <ul style="list-style-type: none"> • Partnership with regional and world-leading schools: <ul style="list-style-type: none"> – Curriculum for each subject follows one of the other schools – At least two visiting faculty from each school per semester – Each student spends 1 semester in the other school
Tsinghua School of Economics and Management	
Background <ul style="list-style-type: none"> • Full-time MBA Program • Embedded in large Comprehensive University, but with high degree of independence 	Industry involvement <ul style="list-style-type: none"> • Leading corporations represented in advisory board of the school and shaping program and vision for the School • Each corporation is responsible a 5-lecture series each year
Industry involvement <ul style="list-style-type: none"> • CEOs of 20+ leading global companies (Goldman Sachs, Nissan...) in advisory board • Active participation of the industrial partners in the shaping of programs 	

Source: Web search; Financial Times Global MBA ranking; team analysis

Initiative 1.4.: Develop area of excellence – Finance and insurance

Our research indicates that there is a critical need for more workers in the banking and insurance sectors since they are large and growing. King Saud University can help address these needs by:

- Develop a strong undergraduate business program with strong focus on Finance and Accounting to equip graduates with the right wherewithal to work in the banking and insurance sectors as well as provide other sectors with this critical functional capability.

The Kingdom is going to experience a severe need for people with banking skills, a field where no strong program is currently in place and where employers have expressed a marked dissatisfaction with their recruits. King Saud University could actively contribute to filling this gap in trained graduates by

providing a high quality undergraduate program in Finance that would directly address the needs of employers through a meaningful curriculum that would incorporate several opportunities to work both locally and internationally. After four years of this, finance graduates would be ready to enter the banking and insurance job market in the Kingdom.

King Saud University should seek partnerships with global and international companies such that they are closely involved in the design and development of the program and also contribute by providing opportunities for students to go on exchanges and internships and for faculty or senior bankers to lecture in King Saud University. In accordance with the options outlined, King Saud University should consider the establishment of partnerships with a number of universities and other Higher Education Institutions that would help it ramp up its capabilities. A number of potential HE partners are Harvard, INSEAD, Indian School of Business, AU Beirut or Bahrain Institute of Banking and Finance.

Additionally, King Saud University should consider creating a network of industrial players, specifically in banking, that would help it develop into a great school known for providing state of the art training to students. That would include a number of the largest banks and insurers in the Kingdom such as Al Rajhi Bank, NCB, Samba and SABB and insurers such as Ta'awuniya and Ahli Takaful given the emphasis on Finance and Insurance. But alliances with all the other major corporations in Saudi should also be further considered to provide opportunities for the development of general managers.

Initiative 1.5.: Develop area of excellence – Engineering/ICT

The Kingdom's ambitions to become a centre of the Knowledge Economy will require it to build expertise in ICT. With this aspiration in mind, the College of Engineering will need to provide a distinctive and extensive program in the field. The graduates of this program will not only help stimulate the buildup of the ICT sector, but also address the increasing need for more ICT professionals in all sectors to improve productivity and competitiveness as automation and decision support systems increase overall industry sophistication. This

new program will closely match the needs of potential employers. Most of the immediate high value needs will be in ICT services – especially consulting and development. The Saudi economy imports a significant number of expatriates for IT services jobs that need to be conducted in the Kingdom. Another potential area of focus can be architecture and design as it relates to Arabic/Islamic digital content and locally specific ICT needs (e.g., Arabic online search engines). Additionally, the program will aim to enhance the “job-readiness” of the students through embedded research projects in industry, international exchanges and internship requirements. King Saud University should consider forming partnerships with Higher Education Partners such as MIT, University of Toronto, or the Indian Institutes of Technology in order to develop a strong ICT program.

In order to shape the curriculum and to foster an environment of collaboration with employers and best international practices, the Faculty of Engineering should also involve the leading ICT companies in the Kingdom (e.g., SBM, ACS) and the other academic institutions that have a distinctive advantage in the field.

Initiative 1.6.: Develop area of excellence – Engineering/Petrochemicals

Petrochemicals constitute a sector with high potential for growth in the Kingdom and one in which King Saud University is already significantly investing, setting up of the SABIC Centre for Advanced Plastics Development in the Riyadh Techno Valley. King Saud University should leverage its efforts with SABIC and push to become the most relevant R&D Centre in petrochemicals in the Kingdom and the region. This should be done through close integration and partnership with industry – deepening the relationship with SABIC and broadening it to other companies. Collaboration with partners in HE institutions throughout the world should be pursued with the likes of the California Institute of Technology, University of Toronto, Texas A&M, Hong Kong University, and National University of Singapore.

Initiative 1.7.: Develop area of excellence – Engineering / Water resources development and management

The scarcity of water in the Kingdom is only likely to be aggravated over the years to come. As a result, there is a growing need for the development of research in areas such as water management and desalination techniques. Given the Kingdom's current status as one of the leading desalination "users" in the world, there are opportunities to experiment and optimize this process as well as to increase its energy efficiency. Research can extend to the management of pipelines and sourcing of water to round out a full water resources research program.

King Saud University could develop a strong position in water management and desalination technology through the development of joint research efforts with leading institutions throughout the world such as the UCLA Water Management Centre. Other HE institutions that currently enjoy a position of strength in the science and management of water include MIT and the University of Jordan.

Initiative 1.8.: Develop area of excellence –Urban planning

With the development of six economic cities (Tabouk Economic City, Prince Abdulaziz Bin Mousaed Economic City, Knowledge Economic City, King Abdullah Economic City, Jazan Economic City, Eastern Province Economic City), the Kingdom is currently undergoing some of the most significant urban development initiatives to be found anywhere in the world.

This has created a pressing need for developing specific knowledge in a wide variety of disciplines (from architecture to infrastructure development to urban policy), and at the same time one of the most salient opportunities anywhere in the world to do scholarly work in urban studies. King Saud University could partner with SAGIA or the Economic Cities developers to develop unique knowledge that would support their development. The program design can benefit from lessons learnt from similar interdisciplinary (e.g., social sciences, civil engineering, architecture, ICT for Smart Cities, Law) centers for Urban Studies in other leading institutions. For example, the University of Southern California's centre was developed using the city of Los Angeles as its own

“urban laboratory”, through the implementation of several research-level programs and fellowships.




In addition to local partnerships with the government and SAGIA or the Economic cities, King Saud University should consider global partnerships with HE institutions such as Harvard, University of Southern California, and Hong Kong University who all have strong urban planning programs.

How should King Saud University achieve excellence in the focus areas?

Any successful strategy for King Saud University for developing the focus areas outlined will need to address the following elements:

- **A partnership model** that includes other higher education institutions as well as private companies that will enable the quick ramp-up of the capabilities of the King Saud University to the highest international standards. The nature of these partnerships will vary for research and teaching focus areas. For example, for teaching, the partnership should include provisions for visiting professorships and exchange student programs at the undergraduate level. For research, partnerships will focus more on co-leadership of research projects with joint laboratory funding and an aligned publication strategy.
- Faculty excellence achieved through a) a group of **faculty of high caliber**, with wide global exposure who are committed to the performance of research at the highest level in specific areas; b) Defining and measuring faculty outcomes against high international standards (teaching and research) will enable institutions to reward excellence.

Partnerships can help raise current capabilities and outputs in priority areas while improving the overall offering to students

	Case example	Key elements	Impact
Comprehensive partnership	 Duke-NUS Graduate Medical school	<ul style="list-style-type: none"> • Research focused relationship formalized in 2005 at the Medical school level • ~\$400 M in funding provided by NUS • Co-development of research priorities • Usage of Duke standards and guidelines <ul style="list-style-type: none"> – Faculty hiring and promotion criteria – Curriculum design – Admission criteria • Veto on all decisions by Duke representatives 	<ul style="list-style-type: none"> • 100% increase in student application • Student outcomes at par with Duke cohort • 50+ faculty with strong publication record hired in 4 years • 7+ international awards for faculty
Opportunistic/ topic based	 NUS, Cambridge, MIT	<ul style="list-style-type: none"> • Topic/department based relationships e.g. <ul style="list-style-type: none"> – Electromagnetic meta-materials with MIT – Organic semiconductors with Cambridge • Joint research decision making, funding with assigned professors from each institution • Location of laboratory varies 	<ul style="list-style-type: none"> • 1000+ collaborative topic based research areas developed with local, regional and international partners • Acceleration of research outputs measured • Opportunity for NUS students to get joint-supervision • 2-3 publications per faculty
Teaching	 1987 - 2007 Erasmus	<ul style="list-style-type: none"> • Large scale multi-national program with over 290 higher education institutions in more than 30 countries • Credit equivalence system ensures course work is recognized by student's home institution • Financial support for students and faculty 	<ul style="list-style-type: none"> • ~180k (10%) student participants per year with 50-70% reporting experience as a factor leading to 1st job • ~25,000 faculty participants with 60% of faculty reporting improvement in research network; 40% in new teaching methods

Source: team analysis, expert interviews, university websites

- A **select group of students** with excellent outcomes - At the undergraduate level students should be able to engage in a well-rounded experience that will prepare them for a successful career (in areas that constitute priorities for teaching). At the graduate level, a distinguished and highly international group of students will develop high-quality research work, under the leadership of faculty. Outcome metrics and **targets** should be set and monitored for students. Employment targets, national and international achievement **awards**, as well as progression to international reputable institutions for **graduate degrees** are key dimensions for measurement.

For each of these attributes and for each focus area a set of options exists. When selecting the most appropriate option, King Saud University should consider several criteria namely a) the ease of operational implementation of the option, b) its social and political feasibility and c) the level of impact on

King Saud University's teaching and research excellence. The exhibit below describes the range of option that exists for King Saud University using the Healthcare focus area as an example.

Partnership options* (healthcare used as example)			
	Option A: Setting international standards for priority initiatives	Option B: Setting emerging market standards for priority initiatives	Option C: Setting regional standards for priority initiatives
Partnership type	<ul style="list-style-type: none"> • Comprehensive research and teaching partnership <ul style="list-style-type: none"> – Common research agenda, developed jointly, with significant funding from KSU – Full training and mentoring of new faculty for 1 year – External mentors assigned for faculty of all tenures – Participation in decision making on academic standards and appointments • Teaching partners for student term abroad <ul style="list-style-type: none"> – 1 term (3-months) funded exchange abroad mandatory for all top students (15%) • Local hospitals engaged in teaching and research with KSU 	<ul style="list-style-type: none"> • Topic/discipline based partnership <ul style="list-style-type: none"> – Topic-based collaboration based at KSU with visiting and local faculty jointly performing research at KSU or partner – Mentorship of KSU faculty with combination of visits and single point interactions – Partners advising on faculty appointments and curricula • Teaching partners for student term abroad <ul style="list-style-type: none"> – 1 term (3-months) funded exchange abroad available voluntarily for all students • Local hospitals engaged in teaching and research with KSU 	<ul style="list-style-type: none"> • Opportunistic partnership <ul style="list-style-type: none"> – Topic-based collaboration based at KSU with visiting faculty playing an advisory, mentoring, role – Largely consultative and advisory roles • Teaching partners for student term abroad <ul style="list-style-type: none"> – 1-term (3-months) funded exchange abroad voluntary for top students • Local hospitals engaged in teaching and research with KSU
+	<ul style="list-style-type: none"> • Significant impact of partnership • Quick ramp up of capabilities 		<ul style="list-style-type: none"> • Ease of implementation since smallest change to current state
-	<ul style="list-style-type: none"> • Difficult and expensive • Challenge of finding the right partners • Controversy about giving partner a say in KSU's governance 		<ul style="list-style-type: none"> • Effectiveness not ensured as interaction and input from partners will be more limited
Criteria for selecting an option: <ul style="list-style-type: none"> • Ease of operational implementation • Social, political feasibility • Level of impact on KSU's teaching and research excellence 			
<small>* Options for health initiatives will be used as a guideline for all other priority focus areas Source: team analysis</small>			

Faculty characteristics and outcomes* (health priority used as example)

	Option A: Setting international standards for priority initiatives	Option B: Setting emerging market standards for priority initiatives	Option C: Setting regional standards for priority initiatives
Faculty characteristics	<ul style="list-style-type: none"> Proven research track record as part of hiring criteria (national or expatriate) 2 senior faculty from partner institution as part-time leaders of research initiatives (Tsinghua) Target of 15% visiting faculty in priority area committed to 2 years (NUS, Caltech) Up to 30% non-ladder faculty (no tenure including TA) for teaching 	<ul style="list-style-type: none"> Proven research track record as part of hiring criteria (national or expatriate) Target of 10% visiting faculty in priority areas (minimal commitment of year as per Tsinghua) 	<ul style="list-style-type: none"> Proven research track record as part of hiring criteria (national or expatriate) Ad hoc (up to 10-15%) usage of visiting faculty for certain positions, mostly for temporary capability building (3 months commitment as in KAUST case)
Expected faculty outcomes	<ul style="list-style-type: none"> Average of 1-2 articles a year in high impact journals 10 faculty recognized as leaders in specific topics within 5 years All research faculty attend major yearly conference Organization of global conference hosted at KSU 	<ul style="list-style-type: none"> Average of 1-2 articles a year in medium impact journals 1 article a year in high impact journal for those in priority topics 5 faculty recognized as leaders in specific topics within 5 years All research faculty attend major yearly conference 	<ul style="list-style-type: none"> Average of 1-2 articles a year in medium impact journals 2 faculty recognized as leaders in specific topics 50% of research faculty attend major yearly conference
+	<ul style="list-style-type: none"> Propelling KSU to world prominence in the discipline 		<ul style="list-style-type: none"> Ease of implementation since smallest change to current state
-	<ul style="list-style-type: none"> Unclear whether faculty can, at this level, be attracted Likely requires strong partnership for attracting visiting faculty 		<ul style="list-style-type: none"> Less demanding outcomes set will not ensure dramatic improvements
Criteria for selecting an option: <ul style="list-style-type: none"> Ease of operational implementation Social, political feasibility Level of impact on KSU's teaching and research excellence 			
<small>* Options for health initiatives will be used as a guideline for all other priority focus areas Source: team analysis</small>			

Student characteristics and outcomes* (health priority used as example)

	Option A: Setting international standards for priority initiatives	Option B: Setting emerging market standards for priority initiatives	Option C: Setting regional standards for priority initiatives
Student characteristics	<ul style="list-style-type: none"> Undergraduate and clinical /graduate** mix in line with global leaders (1:1) Higher quality of students admitted (top 5% of KSU applicants) 	<ul style="list-style-type: none"> Undergraduate and clinical /graduate** mix in line with emerging market leaders (70:30) Higher quality of students admitted (top 10% of KSU applicants) Honors program available for top students 	<ul style="list-style-type: none"> Undergraduate and clinical /graduate** mix in line with regional leaders (70:30) Admission based on program capacity (not quality of applications) Honors program available for top students
Student outcomes	<ul style="list-style-type: none"> Recognized among top schools in the world by 2028 80% graduates employed in top hospitals Less than 10% dropout rate (matching current medical school and international standards) 	<ul style="list-style-type: none"> Top graduates in Middle-East 60% graduates employed in top hospitals Less than 15% dropout rate 	<ul style="list-style-type: none"> Top graduates in KSA 40% graduates employed in top hospitals Less than 20% dropout rate
+	<ul style="list-style-type: none"> Significant increase in teaching standards 		<ul style="list-style-type: none"> Ease of implementation since smallest change to current state Still strives for excellence through Honors program
-	<ul style="list-style-type: none"> Management of class size reduction through meaningful alternatives 		<ul style="list-style-type: none"> May not raise standards, depending on class size
Criteria for selecting an option: <ul style="list-style-type: none"> Ease of operational implementation Social, political feasibility Level of impact on KSU's teaching and research excellence 			
<small>* Options for health initiatives will be used as a guideline for all other priority focus areas ** Masters and PhD students, as opposed to graduate students engaged in clinical studies. Source: team analysis</small>			

Summary

While improvements across the board are necessary if King Saud University is to achieve its aspirations, focusing on a small number of disciplines will ensure momentum in the short run and long term secure distinctiveness for KSU. This section addressed a number of fundamental questions regarding KSU's focus:

- Why does King Saud University need to focus on a limited set of disciplines?

Global higher education experience indicates that becoming distinctive in a discipline requires concentration of resources and management attention on a limited set of disciplines (NUS with its transformation, USC, Stanford with its Stanford Challenge). Internal and external stakeholders also strongly suggest King Saud University should define the areas where it is distinctive as

an institution.

- What should King Saud University focus on?

Developing teaching and research distinctiveness at King Saud University should take into consideration the current needs of and opportunities in the Kingdom (e.g., significant spend in a particular area, leadership position in a field), the relative strengths and capabilities of King Saud University's program compared to other local players as well as the broader higher education trends and next technological horizon. In teaching, King Saud University should concentrate on the following disciplines: education, healthcare, education, ICT, finance & insurance, and management. In research, King Saud University should focus on healthcare, education, water management, petrochemicals and urban studies to try and address the current and future needs of the Kingdom.

- How should King Saud University achieve excellence in the focus areas?

King Saud University will need to define its approach for achieving excellence in the different focus areas by choosing from several options on the dimensions of a) partnerships, b) faculty – calibre, support, and performance management, and c) students – calibre and desired outcomes. The choices will be driven by the level of aspiration in each of these areas coupled with the constraints around the likely funding and socio-political acceptance of each solution set.

Strategic objective #2: Distinctive faculty

If King Saud University is to realize its ambition, it must ensure that its faculty is of the highest caliber. All the leading, fast-progressing universities throughout the world have in common practices related to the recruitment, retention, and evaluation of their faculty. Based on the diagnostic of King Saud University's current processes as well as the analyses of best practices from leading universities around the world, there are five key questions that King Saud University must pay particular heed to.

- Why does King Saud University need to improve the current environment

for teaching and learning?

- How can it recruit the most talented faculty members?
- How can it develop its faculty – building capacity and skills – especially younger faculty?
- How should it improve faculty environment and support?
- How should it establish accountability and performance management systems for faculty?

Why does King Saud University need to improve the current environment for teaching and learning?

Indications from comparisons to international benchmarks, external interviews, and internal surveys and workshops are that KSU needs to improve in both research and teaching. In research, for example, at King Saud University in 2007, on average only every third professor was published. If we compare that with the practice at leading universities, we find that in that same space of time every faculty member had between one and three publications to their name. While this is a rough measure given some of the colleges are not typically research focused, the large gap is an indication of room for improvement in quantity of research. On the quality side, one measure of impact is the citation share received by the publications of an institution over a period of 2 years, proportional to their share of publications. In a variety of fields analyzed (medicine, education, economics, engineering, computer science, and agricultural science), King Saud University is behind competitive institutions by up to a factor of 130. Another indicator is the number of patents registered. Again, in 2007, King Saud University had 5 patents whereas Stanford had 93 and MIT registered 158 patents.

The surveys and interviews with faculty members shed some light on the reasons for these outcomes. More than quarter of all faculty members are currently dissatisfied with the level of support they have received for research. An analysis of the time spent by faculty highlights a shortfall in the amount of time spent on research as a result of administrative and teaching commitments and lack of required support staff. At King Saud University the faculty

spends 150% more of its time on teaching than at benchmarked universities and consequently less time on research. Furthermore, there are only 0.66 support staffs per faculty member available while by contrast at institutions such as Oxford and Stanford each faculty member has at least two support staff supporting them.

On the teaching side, recent alumni, indicate that they are extremely dissatisfied with their King Saud University experience. They generally felt unprepared to join the workforce upon graduation. When asked where the biggest gap in skills was most alumni mentioned practical experience, English language skills and oral and written communication skills. The feedback students gave in the surveys indicates a similar perspective, especially the lack of focus on soft skills.

Upgrading the outcomes of KSU – in both teaching and research – is hence a significant need and must begin with improvements on the faculty side. Faculty is the driver behind university outcomes and therefore needs to be a key element of KSU's strategic transformation.

How can King Saud University recruit the most talented faculty members?

King Saud University should bring its recruiting process up to international best practice levels by actively managing each stage of the process: setting priorities for hiring; managing the selection process, and cultivating the right candidates to persuade them to join the University.

Initiative 2.1: Strengthen faculty recruitment process to match international standards

The first step in the recruiting process is to ensure that the right recruiting goals are set and communicated. This includes a) align on KSU's strategic objectives and priorities, b) defining hiring needs accordingly (i.e., priority disciplines, number of faculty members needed), and c) identifying and communicating to the right pool of candidates. Operationally this would mean using global advertising, strengthening King Saud University's participation in prominent fairs to attract global talent, and using specialized headhunting

firms – by way of example.

Second, in the selection process, King Saud University should bolster the current process to ensure faculty candidates are assessed more thoroughly based on their potential for teaching and research outcomes. King Saud University should set up objective committees, composed of external reviewers as well as King Saud University's own senior faculty, in order to shortlist these selected candidates. There should be minimum requirements such as number of publications in high impact journals, proven teaching abilities and/or industry experience. These shortlisted candidates should be interviewed on site, where they will have to deliver lectures and present their research in order for their capabilities to be correctly assessed.

Finally, it is crucial that once the 'right' candidates have been identified and selected, they are convinced to join King Saud University. For this to happen, senior King Saud University faculty members will have to take ownership and follow up with the candidates on a regular basis, e.g., through phone calls. One senior faculty member should take sole responsibility for following-up with a particular candidate.

To summarize this recommendation for King Saud University:

- Align recruitment goals with strategic needs and communicate them clearly to the right target candidate pool
- Use a thorough, rigorous, and objective selection process focused on potential for teaching and research outcomes
- Follow-up selected candidates by senior faculty of King Saud University as part of a comprehensive cultivation program

How can it develop its faculty – building capacity and skills – especially younger faculty?

At present, the faculty at King Saud University whether they are senior or junior, have very little exposure to international best practices and limited opportunities to develop. In order to remedy this, King Saud University should recruit international part-time or full-time young and sen-

ior faculty to help build the capabilities of King Saud University’s junior faculty. King Saud University should complement this with a development program that includes faculty exchanges and international conference attendance. The recommendation below captures these ideas:

Initiative 2.2: Actively build capacity and attract visiting professors in each department

King Saud University should recruit visiting professors and young international talent from other universities. A typical model for attracting senior faculty is offering part time positions with 50% of time dedicated to King Saud University or lecturing for 1-2 terms while staying the remaining time at their former university. Tsinghua University in Beijing has been very successful with this model. Young researchers (PhD students or post-docs) can play key roles in world-class research groups. The degree to which this practice should be adopted across KSU presents a set of options illustrated in the Exhibit below.

Options for visiting faculty and partnerships			
	Option A	Option B	Option C
Visiting faculty & partnerships	<ul style="list-style-type: none"> Establishment of best practices in recruitment process of international faculty <ul style="list-style-type: none"> Young international talent who can play key role in research groups Senior faculty on part time positions for lecturing and research Prioritization of Nobel Laureates program; expansion to top faculty program 		
+	<ul style="list-style-type: none"> Across all schools <ul style="list-style-type: none"> Attract top scholars & young faculty Target visiting faculty from leading institutions worldwide (through twinning), for a minimum of 2 terms, for teaching and research Establish exchange partnership for top young faculty 	<ul style="list-style-type: none"> Across priority schools <ul style="list-style-type: none"> Attract top scholars & young faculty Target visiting faculty from leading institutions worldwide (through twinning), for a minimum of 2 terms, for teaching and research Establish exchange partnership for top young faculty 	<ul style="list-style-type: none"> Across priority schools and opportunistically for other schools <ul style="list-style-type: none"> Target visiting faculty from leading institutions worldwide (through twinning), for a minimum 2 terms, for teaching and research
-	<ul style="list-style-type: none"> Exposure to global faculty 	<ul style="list-style-type: none"> Prioritize funds usage through option A-type arrangement for key schools only Use priority schools as role models for the whole university 	<ul style="list-style-type: none"> Ease of implementation Minimum cost
	<ul style="list-style-type: none"> Strong funding required to attract leaders, and finance their travel and housing 	<ul style="list-style-type: none"> No spread of the model outside priority schools if successes are not made public and visible 	<ul style="list-style-type: none"> Reduced exposure to international faculty
Criteria for selecting an option: <ul style="list-style-type: none"> Ease of operational implementation Funding availability Language barriers 			

Source: team analysis

It is crucial for the long-term sustainability of King Saud University that faculty members are able to develop their academic careers within the university. Beyond attracting international talent to grow capacity and “import” skills, King Saud University must ensure that it nurtures the talent of its entry-level assistant professors. This involves ensuring that in this most fruitful time of their careers they have extra time and funding dedicated to research as well as to being able to receive adequate mentorship from more senior faculty and formal training in teaching. Teaching Institutes to boost the skills of faculty are being launched in universities throughout the world such as Harvard with a combination of compulsory basic skills trainings and voluntary additional trainings. King Saud University will need to adopt a broad subset of what other leading universities are doing to ensure that it develops its faculty appropriately. This element (training on teaching approach and methodology) will be covered extensively under Strategic objective #4.

How should King Saud University improve faculty environment and support for faculty?

Once it has secured the best people for the job, King Saud University needs to ensure that it succeeds in enabling their productivity and retaining them.

Initiative 2.3: Increase benefits and improve support and environment for faculty members

The faculty members require that the environment in which they work, and the duties they are expected to carry out, are well thought through and in consonance with the general tenor of the university’s goals. This helps them produce high-quality output in both teaching and research. To enable its faculty to perform at the highest level, a number of key initiatives ought to be taken to have an environment that fosters development. These include:

- Adequate compensation packages, including salary, housing allowance, medical plan and relocation of their families;
- Sufficient research funding for faculty members as well as funding for support;
- Good Ph.D. students to create high caliber research groups for the faculty

members as well as to lend support in teaching.

A prerequisite for any effort at recruiting international faculty to be successful is an internationally competitive compensation and perks package. King Saud University must do likewise. In order to be able to attract high caliber faculty, most universities offer compensation significantly above King Saud University's current scales. At the same time, faculty members are offered what are typically highly valued perks, showing a real commitment from the university to its employees. These include a high quality medical plan and housing allowance.

In order to improve research, funding should be made more widely available. The process of allocation needs to be improved by smoothening the allocation process of research funding and delegating significant powers to the college research centers. In order to support research, King Saud University should create a cross-school shared services centre with adequate resources such as shared facilities, technicians, editors of publications and translators. In addition, Ph.D. students should be leveraged to support teaching and research, a practice that is commonly followed in most leading universities. These Ph.D. students, in most cases, constitute a large part of the teaching staff and are the primary drivers of the research efforts led by their professors.. Since the quality and number of Ph.D. students currently in King Saud University is limited, King Saud University should gradually strengthen and enlarge its Ph.D. programs, especially in the focus areas. The following exhibit presents the options around the extent to which each of these elements can be pushed.

Options for 'benefits, support and environment' of faculty members			
	Option A	Option B	Option C
Benefits, support and environment	<ul style="list-style-type: none"> • Leveraging Ph.D./Masters students for teaching and research (mostly Ph.D.s) under the supervision of faculty (average of 3-4 students for senior faculty and 1-2 for junior faculty; depending on the field) • Establishment of shared faculty services (technical help, statistical analysis, paper and grant editing, etc.) 		
+	<ul style="list-style-type: none"> • Raising salaries and benefits, through variable performance bonuses, to close gap and exceed international standards (matching KAUST) • Research funding above international standards (~80k per faculty*) and competitive start-up for new hires • Top tier Ph.D. students of international caliber (active recruitment) 	<ul style="list-style-type: none"> • Raising salaries and benefits, through variable performance bonuses, to match international standards (matching western universities) • Research funding at emerging market standards (~60k per faculty*) and competitive start-up for hires in priority areas • Mixture of local and international Ph.D. students (semi-active recruitment) 	<ul style="list-style-type: none"> • Raising salaries and benefits, through variable performance bonuses, to match regional standards (Middle-Eastern faculty) • Research funding at regional market standards (~20-40k per faculty*) • Mostly local Ph.D. (graduates of local universities or KSU itself)
-	<ul style="list-style-type: none"> • Highest potential to attract high caliber faculty • Strong funding required 		<ul style="list-style-type: none"> • Cost effective option (although funding increase still needed) • Offer still not competitive at the international level
Criteria for selecting an option: <ul style="list-style-type: none"> • Ease of operational implementation • Funding requirements (to work outside civil servants model) 			
<small>* Average annual support for research; wide variation across departments depending on the type of research Source: team analysis</small>			

How should King Saud University establish accountability and performance management?

Faculty promotions currently lack transparency and tenure is automatic. Additionally, the various elements of the Saudi incentive scheme promote behaviors that push faculty to spread their times between research, teaching, conferences and could, in the end, dilute the impact it's meant to have. In order to move towards a performance based system and culture, KSU should provide incentives and rewards for good performance, regularly reviewing the achievements of its faculty members. These achievements should be aligned with the desired outcomes from each faculty member – teaching, research, practice (e.g., clinical) or a combination of all.

Initiative 2.4: Design and deploy new faculty tracks

Compulsory 'merit based tracks' must be designed for and offered to all newly

hired faculty, Saudi or non-Saudi. Track models vary from institutions to institutions, but the majority fall under the following 4 types

- **Standard track at research universities** – This track is most commonly found across most top institutions, with few variations. It consists of 30-50% of time spent teaching (with the balance mainly focused on research) varying based on the status of the professor and his tenure level.
- **Research only track** – This research only track allows faculty to spend 100% of their time at university research centers. In this model, teaching is voluntary although faculty can act as guest lecturers/speakers. Finally, their role as mentors is emphasized, and part of their evaluation.
- **Teacher only track** – Up to 100% of faculty time is spent teaching in this track. The requirements regarding teaching method and curricula development vary according to academic status.
- **Practitioner track** – This model is a flexible model where faculty with industrial or clinical focus spends 20-30% teaching. It requires a heavy industrial or clinical experience. The remainder of the time is spent on professional activities. This model is particularly popular in medical and business schools, where teachers share their time between industry/hospital and their teaching roles.

As an institution, King Saud University has design options along these 4 models. The majority of top institutions mostly rely on the standard research track, with a few schools leveraging practical experiences through guest lecturers or practitioners. These design options each have pros and cons, summarized in the following exhibit.

Options for track diversity

	Flexibility to adapt: Allows all tracks	Research & practical expertise: Tracks 1 & 4	One size fits all: Only one track
Track diversity	<ul style="list-style-type: none"> Faculty selects track most consistent with their skill set <ul style="list-style-type: none"> Investigator-Educator track Investigator track Educator track Practitioner track for accomplished professionals Performance measured according to track chosen Not all faculty require doctorate (e.g., Practitioners, Educators) 	<ul style="list-style-type: none"> Faculty in the Investigator-Educator track <ul style="list-style-type: none"> Required to excel in teaching and research PhD, MD, MD/PhD, or JD Performance measured primarily on research output Accomplished professionals appointed as faculty for subjects where practical experience is essential 	<ul style="list-style-type: none"> Faculty required to excel in teaching and research Performance measured primarily on research output All faculty PhD, MD, MD/PhD, or JD holders Other teaching needs filled with temporary lecturer positions
+	<ul style="list-style-type: none"> Flexibility for faculty to choose preferred focus Possibility to retain both, good researchers and good teachers Teaching track faculty prone to curricular/pedagogical innovation 	<ul style="list-style-type: none"> Strong research/practice focus of all faculty ensures they are up to date with the latest developments in their field 	<ul style="list-style-type: none"> Strong research focus of all faculty ensures they are up to date with the latest developments in their field Faculty with research-oriented mindset better supports students' inquiry skills
-	<ul style="list-style-type: none"> Performance management system strong enough to ensure high quality across all tracks 	<ul style="list-style-type: none"> Faculty selection for the standard track, based on research, may not select for the best teachers 	<ul style="list-style-type: none"> Faculty selection based on research may not select for the best teachers
	Criteria for selecting an option: <ul style="list-style-type: none"> Ease of operational implementation 	<ul style="list-style-type: none"> Funding availability Particular field of study 	<ul style="list-style-type: none"> Research vs. teaching needs Ease of transition to end-state

Source: team analysis

Additionally, there are options on tenure itself. As discussed earlier, King Saud University has almost automatic tenure (for Saudi faculty), with little evaluation once tenure is obtained. Furthermore, there are no real consequences for poor performance, especially in the case of Saudi faculty.

International universities display a number of common themes in the management of their faculty's performance. Criteria for promotion include measurably high performance in research such as 2-3 papers in international journals, and satisfactory teaching performance based on a combination of student surveys and senior faculty's assessment. The review criteria are different for every stage of a professor's career, requiring them to increasingly occupy positions of leadership in research groups and cross-university projects. Participation in the administrative tasks through leading departments and colleges is commonly required as faculty become more senior, i.e., for senior associate

professors and full professors. Evaluations normally involve committees of senior faculty with one external member and extensive input from specialists in the evaluated professor's field.

Tenure is only awarded after the committee's review. For the tenure decision similar principles as for the previously mentioned promotion decisions apply. These include the assessment of individual research, satisfactory teaching and service to the university.

In addition to promotion and tenure decisions, significant review of the performance of faculty is carried out on a regular basis. Typically, there is a yearly "directional" appraisal done at the department level, which advises faculty on their opportunities for promotion and status within the university. In addition, on a three-year basis, faculty's performance (including tenured faculty) is reviewed using a thorough committee process with external input. Depending on the outcome of the review, dismissal of the faculty member is a possibility.

Options for track implementation – Tenure system

	Option A: Soft tenure	Option B: Hard tenure	Option C: No tenure
Tenure system	<ul style="list-style-type: none"> • Rigorous performance management with periodic review cycles and clear promotion guidelines • Review committee formed based on international standards, with extra-departmental members and input of peers through 10-15 letters • Promotion to tenure is not automatic for all new hires, independently of country of origin or gender • Time to tenure raised to a minimum of 3 years for all new hires • No tenure clock* • 5-year review after tenure 	<ul style="list-style-type: none"> • Promotion to tenure is not automatic for all new hires, independently of country of origin or gender • Time to tenure raised to 4-8 years for all faculty and fine-tuned according to international standard in the discipline • Tenure clock* set at 6-8 years • 3-year review after tenure 	<ul style="list-style-type: none"> • No tenure track with faculty hired on fixed-term contracts <ul style="list-style-type: none"> – Renewable – Term based on seniority <ul style="list-style-type: none"> • 3 years for Assistant Prof. • 5 years for Associate Prof. • 7 years or rolling** for Professors • First review at year 5 • 3-year review based on performance
+	<ul style="list-style-type: none"> • Enables gradual transition to improving faculty quality 	<ul style="list-style-type: none"> • Selects high quality faculty • Ability to retain established leaders/older professors 	<ul style="list-style-type: none"> • Attracts highest caliber researchers due to funding • Encourages innovation and risk
-	<ul style="list-style-type: none"> • Harder to enforce standards for faculty performance • Time may be insufficient to demonstrate competence 	<ul style="list-style-type: none"> • May cause a capacity crunch until a sustainable state is reached 	<ul style="list-style-type: none"> • High level of resistance from existing faculty (may only be possible in newly created centers)
Criteria for selecting an option: <ul style="list-style-type: none"> • Faculty acceptance • Political support 			
<small> * Tenure clock defines the maximum amount a faculty can take to achieve tenure, beyond that tenure is not granted and faculty is asked to leave ** Rolling contracts stipulate that any decision taken towards the professor has a certain number of years before being put into action, e.g., a rolling-5 professor would have a 5-years time to leave the university in case of dismissal </small>			
<small>Source: team analysis</small>			

Options for tenure and evaluation are shown Exhibit 13 above. The impact of a new tenure system on the existing faculty will be unsettling, and a set of options exist in terms of transitioning the current faculty to the new tracks.

Options for track implementation – Transition			
	Option A	Option B	Option C
Transition	<ul style="list-style-type: none"> • Compulsory new track system for all new hires independent of gender, tenure or country of origin 		
	<ul style="list-style-type: none"> • Current Saudi faculty <ul style="list-style-type: none"> – New system compulsory across all KSU • Current foreign faculty <ul style="list-style-type: none"> – New system compulsory across all KSU • No return to civil servant track 	<ul style="list-style-type: none"> • Current Saudi faculty <ul style="list-style-type: none"> – New system compulsory in priority colleges – New system voluntary in non-priority colleges • Current foreign faculty <ul style="list-style-type: none"> – New system compulsory across all KSU • No return to civil servant track 	<ul style="list-style-type: none"> • Current Saudi faculty <ul style="list-style-type: none"> – New system voluntary across all KSU • Current foreign faculty <ul style="list-style-type: none"> – New system compulsory in priority colleges – New system voluntary in non-priority colleges • Return to civil servant track possible
+	<ul style="list-style-type: none"> • Best long-term road to equality • Enforces high quality standard 		<ul style="list-style-type: none"> • Voluntary nature of the option
–	<ul style="list-style-type: none"> • No freedom of choice 		<ul style="list-style-type: none"> • Burden of communicating the existence of 2 parallel systems • Longer transition to achieving desired quality standard
Criteria for selecting an option: <ul style="list-style-type: none"> • Faculty acceptance • Political support 			

Source: team analysis

Evidently, the new track will also need to have benefits; additional support, funding, PhD students to support the expected level of performance and allow the faculty to reach the highest expected levels of performance.

Summary

The recommendations for achieving faculty distinctiveness can be summarized as follow:

- Why does King Saud University need to improve the current environment

for teaching and learning?

The current output of publication, patents and citations of King Saud University is well below international benchmarks. Feedback from faculty, alumni, and students shows great dissatisfaction with the King Saud University faculty's instructional style and learning outcomes.

- How can King Saud University recruit the most talented faculty members?

Recruitment should be based on strategic needs and communicated to the right candidate pool. The selection process should be rigorous and objective, and include evaluation of teaching and research credentials plus an independent peer review. After an offer is made, senior faculty should follow up to persuade the candidate to join King Saud University as part of a comprehensive cultivation process.

- How should King Saud University improve its faculty environment and support for faculty?

Compensation for faculty should be based on merit and be in line with international benchmarks, as should the research funding given per faculty member. Ph.D. students should be more strongly involved in teaching and research.

- How should King Saud University establish accountability and performance management?

Regular evaluation of all faculty members should take place, with decisions about tenure-promotion based on merit and timelines consistent with benchmarks. All faculty should be treated the same irrespective of gender or nationality.

Strategic objective #3: Less is more

The size of a university affects it in a various ways. It can determine the level of “community” feel the institution has, and can drive the ability to deliver the right level of education and quality of research depending on the ratio available resources and funding to overall size. For example, faculty-student ratio is often cited as a rough measure of the capacity of teaching available to

students. Graduate-undergraduate ratios are roughly indicative of the amount of research a university conducts. The size of King Saud University, currently more than 110,000 students (predominantly undergraduate), is striking by any comparison and was cited by all stakeholder groups as a potential challenge. This raises several key questions:

- What is the relationship between the size of a university and its level of excellence?
- What kind of impact does the size of King Saud University have on the quality of education and the student experience?

Beyond structural changes to the University (e.g., spinning off campuses), the only way to reduce the number of students in the longer term is to have a higher admission bar for new students. Keeping this fact in mind, there are some questions we need to consider around admission:

- How do leading institutions set rigorous admission processes?
- What challenges result from King Saud University's current admission process and criteria?
- What can King Saud University do to adjust its student body size to be more appropriate for its high ambitions for high quality research and education?
- What is the role of international students in undergraduate and graduate programs at King Saud University?

What is the relationship between the size of a university and its level of excellence?

There is no conclusive evidence proving that larger is better or vice versa in higher education. An analysis of the THES rankings, however, illustrates a few insights supporting the concerns raised by KSU stakeholders regarding its size:

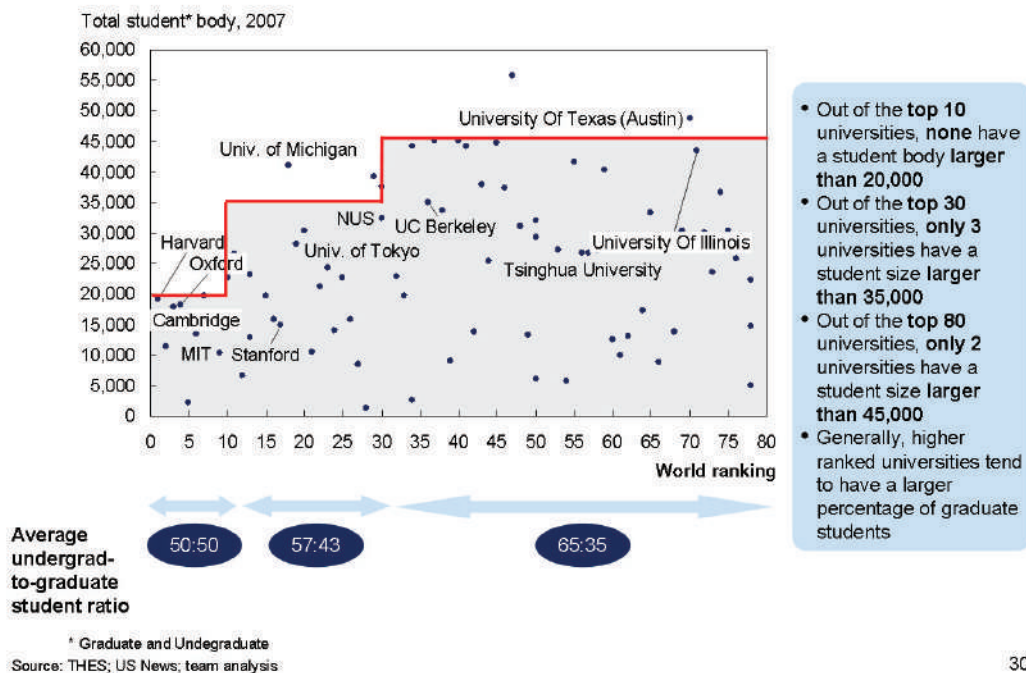
- Of the top 10 universities, none have a student body larger than 20,000.
- Of the top 30 universities, only 3 universities have a student size larger

than 35,000.

- Of the top 80 universities, only 2 universities have a student size larger than 45,000.

Of course, this does not mean that a large University cannot excel in a particular department or discipline. However, it does suggest a correlation between a smaller size for the institution as a whole and the ability to achieve overall excellence. In fact, large leading research universities, including public ones with strong social obligations to educate, are moving towards reducing their student size. For instance, UC-Berkeley has established an upper limit; on its latest strategic plan, while NUS has included this criterion in their performance contract with the government. As for the size of the graduate student body, higher ranked universities tend to have a larger percentage of graduate students. Typically, the top-10 universities have a ratio of 50:50, the ones ranked between places 11 and 30 have a ratio of 57:43 towards undergraduate students. This trend is even more pronounced for universities between the ranks of 31 and 80 with a 65% share of undergraduates on average as seen below.

Leading universities, including public universities, have smaller student bodies, with few above 45,000 total students



What effect does the size of King Saud University have on the quality of education and the student experience?

King Saud University's current enrolment has recently exceeded 110,000 students, making it substantially larger than any research university and one of the largest universities in the world. King Saud University faculty, administrators, and external stakeholders have consistently reported that the huge student body could be a major threat to King Saud University's future success. As much as 45% of faculty that participated in our survey spoke of the size of their classes as being too large; and even the 55% who didn't, conceded that the undergraduate population is too large. Also, from the student's point of view, 48% expressed the view that the size of the faculty was not large enough to enable effective learning. This immense number of students is not only overcrowding classrooms and jeopardizing the quality of education, but is also increasing the average teaching load per faculty, allowing faculty little to no time to spend on research.

Another indicator that determines the quality of teaching is the funding per student. Leading private universities such as Harvard spend more than \$ 100,000 per student; leading public universities in the US such as Berkeley have \$ 47,000; and leading public universities even in emerging economies such as NUS have \$ 30,000 per student. King Saud University, by contrast, spends on average \$ 15,000 per student.

How do leading universities set rigorous selection processes?

The admission processes of leading universities around the world have seven common elements.

- Academic performance in high school or its equivalent;
- Standardized tests (e.g., SATs);
- Outstanding performance in any academic field of study;
- Special talents or achievements, e.g., other languages;
- Interviews conducted by faculty, or alumnus;

- Essays, letter of presentations;
- Recommendation letters.

Depending on their needs and goals, the weight given to each of these elements varied. One important metric of the admission process was the acceptance rate of the universities:

- The top private universities in the US such as Harvard, Yale and MIT have admission rates between 9 to 13%.
- The top public universities in the US such as UC Berkeley, UCLA and University of Michigan have admission rates between 23 to 50%.
- Top public universities outside the US such as Cambridge, Oxford and NUS have admission rates between 25 and 70%.

A great student output begins with great input. Universities use a comprehensive set of criteria, adapted to the field of study to determine which students are picked for admission. The higher the quality of a university the more selective its admission processes.

What challenges result from King Saud University's current admission process and criteria?

Currently, admission at King Saud University is dependent on a student's Thanawiya and Qiyas scores. For male students, there is a 60% weight on Thanawiya and 40% on Qiyas; and for women it is 70% on Thanawiya and 30% on Qiyas. On scrutinizing the distribution of scores of both tests, it is apparent that the Thanawiya test makes little or no distinction between students, whereas the Qiyas test indicates a much more widespread distribution in the shape of a bell curve. This suggests that the Qiyas test might be more appropriate as criteria for admission.

The admission of low performing students is also reflected in the high dropout rate at King Saud University: 15% in the first year and 22% if the first two years are considered. Benchmarked universities dropout rates are as low as 2 and 5%. The rate of students graduating on time at King Saud University is 55% while that of international leading universities is between 70-83%.

What is also revealing is that at King Saud University there is a marked difference between the medical colleges and the others, with the latter having the lowest dropout rate. Why this is significant is because these are the colleges with the toughest admission criteria. It might therefore make a lot of sense for King Saud University to use these colleges as role models for King Saud University overall.

What can King Saud University do to adjust its student body size to be more appropriate for its high ambitions for high quality research and education?

King Saud University should reduce its overall student enrolment. This should be done with care given the social implications of excluding students from the KSU community, but ultimately it will serve the University, the students, and the Kingdom well. Several recommendations to both reduce the size and manage the resulting outflow of students in Riyadh and the Kingdom are presented below.

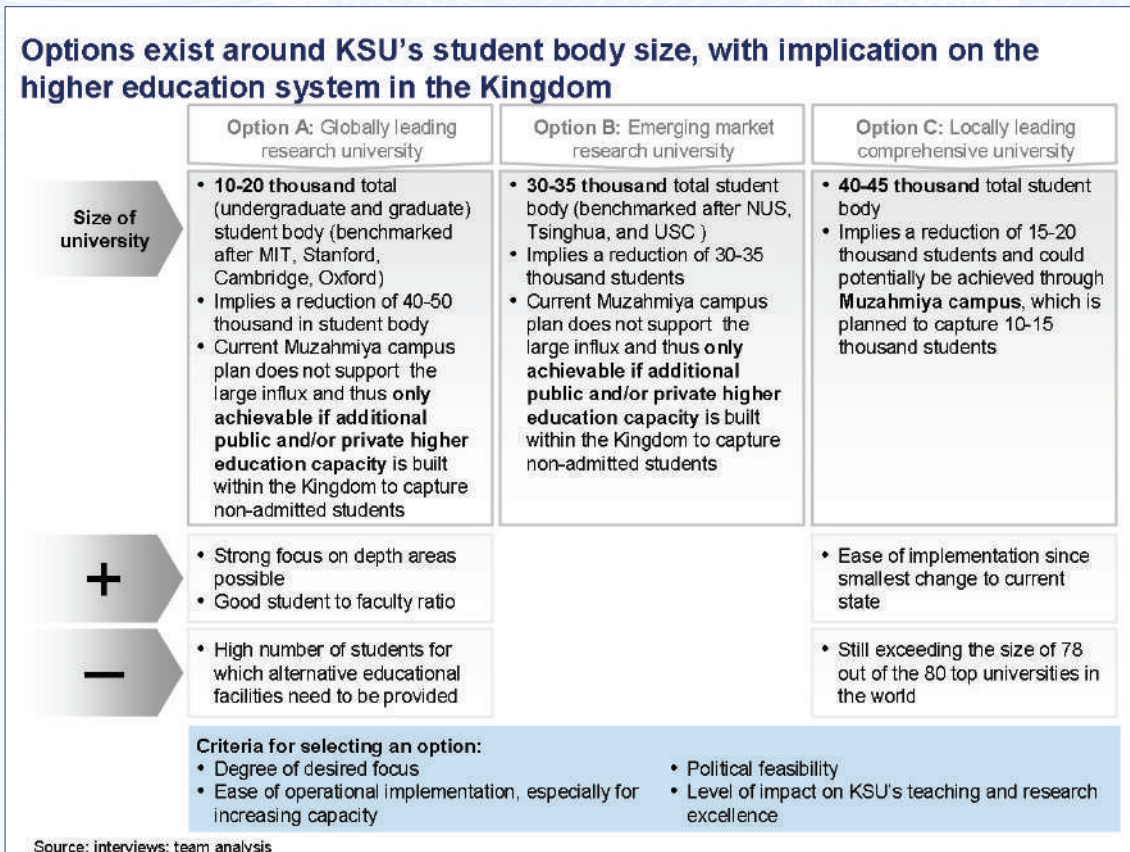
Initiative 3.1: Transform the existing branch campuses into standalone universities

King Saud University has expanded significantly in a number of locations over the last 10 years, encompassing more than 18 geographically dispersed campuses within the Riyadh Province. In an effort to reduce the size of King Saud University and to increase the university's strategic focus, there is currently a proposal to transform King Saud University's non-Riyadh branches into 3 standalone universities grouped by geographic location. This initiative can bring down the enrolment in King Saud University to the range of 60,000-70,000 students. The 3 branches are:

- Shaqra University (~18,000 students): Includes branches located in Shaqra, Al Qeyah, Al Dawadmi, Dharma, and Afif.
- Al Kharj University (~18,000 students): Includes branches located in Al Kharj, Wadi Al Dawaser, Al Aflaj, and Hotat Bani Tameem.
- Al Majma'ah University (~11,000 students): Includes branches located in Al Majma'ah, Al Zulfi, and Huraimla.

Initiative 3.2: Reduce the size of the student body at the Riyadh campuses by increasing student selectivity

The student body at the remaining Riyadh campuses will still exceed 60,000, larger than that of any university ranked among the top-80 universities by the ‘Times Higher Education Ranking for World Universities’. Therefore a further reduction in the number of students is warranted.



The exhibit above highlights the options and tradeoffs for student enrolment reduction within the Riyadh campus. It is important to note that the final size of the university also means a potential to increase the graduate to undergraduate ratio. To increase its selectivity, King Saud University should use a combination of Qiyas, Thanawiya, Tahseely, interviews and a placement exam based on the specific needs and requirements of each of its schools. The exact

combination of each criterion should be determined by the particular college in question, but should be heavily weighted towards the more discerning Qiyas scores.

King Saud University should gradually raise the bar for admission (using the new combination of admission criteria) to its priority schools (and other schools as appropriate to achieve strong performance across the university) so as to promote program excellence. This would have a significant impact on the number of students admitted. For example, raising the admission bar to a minimum of 81 in Qiyas would result in a reduction of the students admitted to engineering colleges from 390 to 214. Additionally, KSU can influence high quality students to join the focus disciplines through financial rewards and incentives. Options around incentives and admission bar adjustment are shown in the Exhibit below.

Options exists around how KSU can address the incoming quality of its students

	Option A	Option B	Option C
Selectivity	<ul style="list-style-type: none"> • Combination of Qiyas, Thanawiya, Tahseely, interviews and placement exam based on each specific school needs and requirements • Exact combination of each admission criteria to be determined by each college, but should be heavily weighted towards more discerning Qiyas scores 		
Student body characteristic	<ul style="list-style-type: none"> • Raise the current admission bar as to only take top 20% of current admits (Qiyas* of 81 equivalent) 	<ul style="list-style-type: none"> • Raise the current admission bar as to only take top 35% of current admits (Qiyas* of 76 equivalent) 	<ul style="list-style-type: none"> • Raise the current admission bar as to only take top 50% of current admits (Qiyas* of 73 equivalent)
Student incentives	<ul style="list-style-type: none"> • Double student incentives** to attract students in priority colleges by raising new funds and giving scholarships 	<ul style="list-style-type: none"> • Double student incentives*** to attract students in priority colleges by reducing incentives in other colleges 	<ul style="list-style-type: none"> • No changes to current student incentives
+	<ul style="list-style-type: none"> • High student quality • High motivation for students 		<ul style="list-style-type: none"> • Students of high potential but not great performers in high school still admitted
-	<ul style="list-style-type: none"> • Early rejection of a minority of high potential students who may not have performed well 		<ul style="list-style-type: none"> • Highest quality of pool not ensured
Criteria for selecting an option: <ul style="list-style-type: none"> • Degree of desired focus on research • Ease of implementation over the next 20 years 			
<small>* We use Qiyas to calibrate to, rather than the Thanawiyah because the Thanawiyah scores of KSU admits are largely skewed to higher grades, showing little variability and are not indicative of student performance; whereas the Qiyas scores are more normally distributed and relatively more correlated with student performance</small>			
<small>** Priority college students would receive 1800 SAR monthly; while others would receive 900 SAR (as today)</small>			
<small>*** Priority college students would receive 1800 SAR monthly; while others would receive 450 SAR</small>			
<small>Source: team analysis; KSU student data</small>			

Initiative 3.3: Form advisory committee to analyze higher education capacity and advise government

Reducing the intake of students at King Saud University will have an impact on the overall landscape in the Kingdom. With 40% of the population under 15, the needs will increase, and the demands on institutions like King Saud University will increase.

Additionally, the current offering in the Kingdom is not adapted to the wide range of students' capabilities; with few vocational programs. In California, this tier system has effectively enabled the State to tailor education in a simple way: a) University of California – top research institutes focusing on quality in teaching and research b) California State universities, mostly focused on teaching and c) community colleges to provide vocational type trainings to the population. This leads to the potential solution of segmenting the universities in the kingdom into different types each addressing a different need for the kingdom. KSU would become a research focused university, while others may be better suited to play a role as a teaching university (with some applied research) or a vocational institute. This “tiering” would also allow KSU to increase its graduate student population and become a producer of future professors for the increasing number of universities in the Kingdom, thus further fulfilling its social duty. Along these lines, options for how to absorb the student volume exist for the Kingdom; with King Saud University serving as a thought partner to the Ministry of Higher Education in shaping the overall higher education landscape (see Exhibit below).

KSU's desired final size will require significant changes in the higher education landscape of the Kingdom

	Option A: Encouraging additional private higher education capacity	Option B: Tiering the Saudi public higher education system	Option C: Tiering within KSU
Alternatives for non-admitted students	<ul style="list-style-type: none"> Increase capacity of higher education throughout the Kingdom by encouraging the establishment of additional private universities while providing public funding for students to attend these private universities (e.g., vouchers can be given to students which they can use at any qualifying private university) 	<ul style="list-style-type: none"> Increase capacity of higher education throughout the Kingdom by establishing additional public higher education institutions Tiering the higher education system into leading research universities, state universities, and vocational training/polytechnics to cater for different student needs and capabilities 	<ul style="list-style-type: none"> Create additional capacity within KSU (independent of main Riyadh male and female campuses) by ramping up Muzahmiya campus to handle non-admitted students (plans currently underway) Muzahmiya campus will be designed to focus on professional and vocational training and can potentially handle up-to 10-15 thousand students
+	<ul style="list-style-type: none"> Fostering development of private education sector 	<ul style="list-style-type: none"> Better adjustment of the institutions to the capabilities and needs of the students 	<ul style="list-style-type: none"> Fast implementation
-	<ul style="list-style-type: none"> Reduced influence of government in curricula design 	<ul style="list-style-type: none"> Funds required for new universities Perception of 2nd/3rd class education by students/parents 	<ul style="list-style-type: none"> One-time solution that does not prepare the system to respond to future student population growth
Criteria for selecting an option: <ul style="list-style-type: none"> Ease of operational implementation Pace of current university capacity ramp-up Political willingness 			

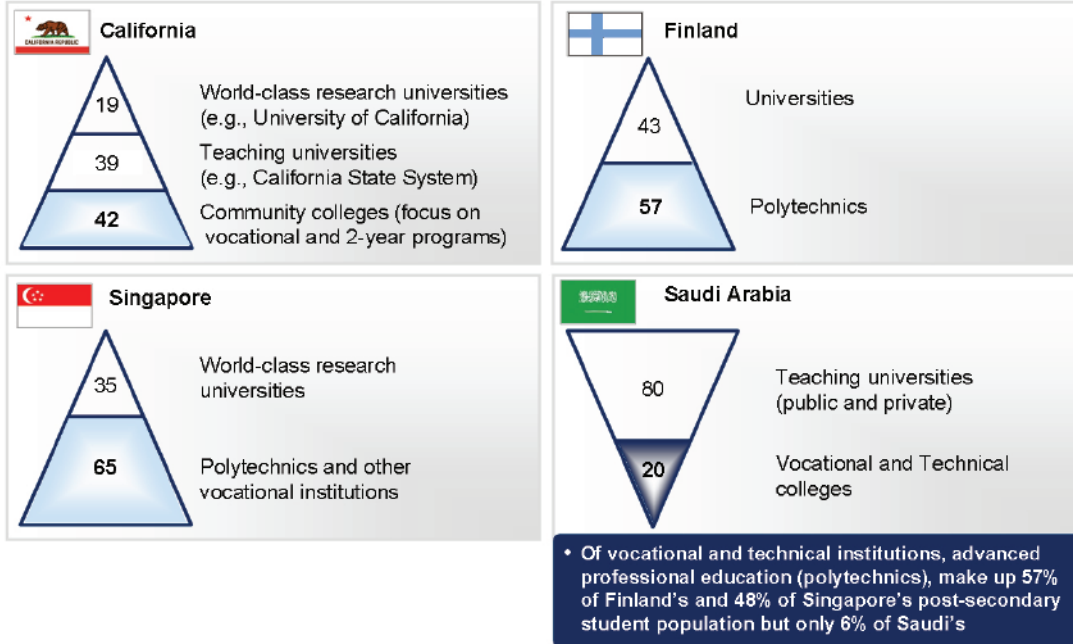
Source: interviews; team analysis

Initiative 3.4: Build internal capacity at Muzahmiya campus

The concept of tiering as per the model of the State of California described above can also be applied within King Saud University. The current ramp-up of the Muzahmiya campus from 10,000 to 15,000 students could provide King Saud University with an internal outlet to tier its offering and support the various needs of students. Furthermore, in the Kingdom, there is a gap in post-secondary advancement professional education. The Muzahmiya campus could provide an offering similar to Singapore's polytechnic institutes, offering a distinctive value proposition for students seeking advanced professional education and skills. It could also serve as an opportunity to consolidate professional diploma and associate type degrees on a campus dedicated to vocational and technical type trainings.

KSU Muzahmiya branch could potentially help fill the gap in post-secondary advanced professional education in the Kingdom

Breakdown of post-secondary student population
%



Source: Interviews, web search, UNESCO, OECD, team

Similar to Singapore’s polytechnics, KSU Muzahmiya could offer a distinct value proposition for students seeking advanced professional education and skills

	← Vocational Student Inclination Academic →	
Qualification	Professional diploma	Professional bachelor’s
Description	<ul style="list-style-type: none"> • Practical skills • Directly applicable to job market • Instructors with practical experience • Workplace internships 	<ul style="list-style-type: none"> • Advanced application • Selected disciplines • Instructors with practical experience • Workplace internships
Duration	<ul style="list-style-type: none"> • 2 Years 	<ul style="list-style-type: none"> • 3-4 Years
Example Disciplines	<ul style="list-style-type: none"> • Business (e.g., accounting) • IT • Healthcare (e.g., nursing) • Tourism • Agriculture 	<ul style="list-style-type: none"> • Business • IT • Nursing • Tourism • Agriculture
Example Jobs (IT)	<ul style="list-style-type: none"> • Setting up computers and networks • Designing graphics and basic web pages • Inputting and managing data 	<ul style="list-style-type: none"> • Managing teams setting up networks • Advanced graphics and web pages • Basic data analysis
<ul style="list-style-type: none"> • Muzahmiya should focus on providing programs offering advanced professional skills (e.g., accounting) and programs highly demanded by labor market (e.g., nursing) • These programs should focus on practical teaching and should build cooperation with the private sector on policy making, program and curricula offerings, training, and funding 		

Source: Team analysis

Initiative 3.5: Expand current graduate offering in each program

Reducing the intake of students at King Saud University will have an impact on the overall landscape in the Kingdom. It will also allow King Saud University to increase its focus on graduate program, and provide faculty with the adequate leverage to do quality research and, as well, support them in their teaching activities. This element is especially crucial in a context where King Saud University needs to overhaul its teaching methods. Current teaching load and size of student body make it difficult for qualified faculty to innovate in their classrooms, or even provide long assignment or essay-based exams, as they currently lack the support international institutions provide faculty in the form of graduate students. As seen earlier, graduate to undergraduate ratios vary between institutions, and within institutions as well. Leading and established universities tend to reach a 50:50 balance, where as leading public in-

stitutions recognize their roles in educating the public, and tend to have a 60:40 undergraduate ratios. As an emerging institution, NUS has reached, in a 15 year period, a ratio of 70:30. King Saud University should at the minimum reach a level similar to NUS in its priority research areas, while encouraging a review of graduate programs in all departments and understand the need, societal and institutional, to build graduate studies. This would also allow KSU to increase its graduate student population to become a producer of future professors for the increasing number of universities in the Kingdom, thus further fulfilling its social duty

Options for female/male ratio and graduate studies

	Option A: Globally leading research university	Option B: Emerging market research university	Option C: Locally leading comprehensive university
Undergrad. to grad. student ratios	<ul style="list-style-type: none"> • 50/50 undergraduate-to-graduate ratio in priority schools (as average top 20 schools worldwide) – 70/30 in other schools (as emerging schools such as NUS) 	<ul style="list-style-type: none"> • 60/40 undergraduate-to-graduate ratio in all schools (as top 20 to 150 average) 	<ul style="list-style-type: none"> • 70/30 undergraduate-to-graduate ratio in priority schools (as emerging schools such as NUS) – Other schools 90/10 (raising current levels, but still focused on teaching)
Female-to-male student ratios	<ul style="list-style-type: none"> • Maintain a minimum overall female-to-male ratio of 45/55 		
+	<ul style="list-style-type: none"> • High research potential, given significant graduate student numbers 		<ul style="list-style-type: none"> • Ease of implementation since ratios are the closest to KSU's current state
-	<ul style="list-style-type: none"> • Reduction of undergraduate sizes will require viable alternative options for them and may be politically sensitive 		<ul style="list-style-type: none"> • Graduate community will be smaller, hindering research
Criteria for selecting an option: <ul style="list-style-type: none"> • Degree of desired focus on research • Ease of implementation over the next 20 years 			

Source: team analysis

What is the role of international students in undergraduate and graduate programs at King Saud University?

All top universities, both public and private, complement their domestic student body with international students. In undergraduate education, leading universities have a share of international students between 3-14% with an average around 10%; NUS has 22% international students as part of its student body. In graduate education, the percentage of international students is significantly higher exceeding 50% at NUS, Cambridge, and Oxford. On average the share of international graduate students in leading institutions is 30%.

The presence of international students clearly presents advantages and disadvantages. International students enrich the class environment with their global perspective, enable universities to expand their talent sources, present a source of funding for the institution and, for graduates and students, their outputs remain in the country where the research is conducted. On the flipside, international students take seats away from the local students, and can impact the cultural identity of an institution. International undergraduates may leave the country after graduation and the investment made by the institution or the country is effectively lost.

Initiative 3.6: Increase international student intake for graduate students

Of King Saud University's undergraduate student body, only 2.5% are international students and of its graduate student body only about 4% are international. The case to increase these numbers is clear for the graduate student body. However King Saud University must decide what it would consider an optimal mix given the potential political challenges and the corresponding benefits.

Options for international students at KSU

	Option A	Option B	Option C
Student body characteristic	<ul style="list-style-type: none"> • International student target (based on rapidly improving university such as NUS) in priority colleges <ul style="list-style-type: none"> – 50% in graduate programs – 20% in undergraduate programs 	<ul style="list-style-type: none"> • International student target (based on top research university averages) in priority colleges <ul style="list-style-type: none"> – 30% in graduate programs – 15% in undergraduate programs 	<ul style="list-style-type: none"> • International student target (based on public university lower end) <ul style="list-style-type: none"> – 20% in graduate programs – 5% in undergraduate programs
+	<ul style="list-style-type: none"> • Enriched class environment • Attracting talent • Improving research output • Provide funding if international students pay tuition 		<ul style="list-style-type: none"> • Better conservation of cultural identity • Funding used mainly for local students
-	<ul style="list-style-type: none"> • Dilution of cultural identity • Reduced seats for local students • Lower return on investment if foreign students leave 		<ul style="list-style-type: none"> • Limited global perspective for attending students • Reduction of prospective talent pool
Criteria for selecting an option: <ul style="list-style-type: none"> • Political willingness • Ability to find quality graduate students for KSU • Need for global perspective in selected programs 			

Source: team analysis; KSU student data

Summary

- What is the relationship between the size of a university and its level of excellence?

Data suggests an inverse correlation between the size of a university and the level of excellence achieved by the university as a whole. Top ranked universities generally exhibit a smaller student size than lower ranked universities, rarely exceeding 45,000 students. Leading universities with stronger research focus have high graduate-to-student ratios (50% on average) than comprehensive, less research-focused universities.

- **How is the size of King Saud University impacting the quality of education and the student experience?**

King Saud University's significantly large size is negatively impacting the quality of education and student experience. Students and faculty have expressed major concerns around the size of King Saud University and its impact on the quality of education, level of excellence, and future of the university. Numbers confirm that the size of the student body is diluting the university's financial and human resources and limiting King Saud University's ability to provide a quality education for each student.

- **How do leading universities set rigorous selection processes?**

A great student output begins with great input. Universities use a comprehensive set of criteria, adapted to the field of study, to select students for admission.

- **What challenges result from King Saud University's current admission process and criteria?**

King Saud University's current admission criteria are not discerning and, as a result, many low-performing students are admitted into the University. Both students and faculty have expressed major concerns about the unwieldy size of King Saud University, and the kind of impact it is having on the quality of education, level of excellence, and future of the university.

- **What can King Saud University do to be more in line with global university trends with regard to size and quality?**

King Saud University needs to reduce its student size in order to be in line with globally preeminent universities by raising its admission bar. Spinning off the King Saud University non-Riyadh branches into independent universities will substantially reduce the number of students but that alone will not be sufficient to align King Saud University with international benchmarks (King Saud University will still have more than 60,000 students). King Saud University will need to further reduce its size by gradually raising the admissions bar while finding an outlet for non-admitted students. KSU should work with the Ministry of Higher Education to ensure the best outcome for Riyadh and

the Kingdom consistent with a new, reduced size for KSU, as well as explore using the Muzahmiya campus to absorb some of the excess students.

- What is the role of international students in undergraduate and graduate programs at King Saud University?

King Saud University could leverage international students to improve the quality of its graduate programs. International graduate students' research has direct impact on the host country and on the reputation of the school locally and globally. Attracting international students can provide an international, global perspective for both the faculty and student body at the University.

Strategic objective #4: Stronger graduates

A prerequisite for developing high quality graduates is high quality freshmen. Reducing the number of students in the longer term through a higher admission bar will address some of the deficiencies our graduates' skill set. Having a balanced focus on hard and soft skills will make KSU's graduates even stronger. One of the key "soft" skills is language. Speaking a global language allows students to better adapt to a global job market, as well as an increasingly globalizing graduate studies market. Offering a curriculum in a global language allows the university to attract foreign talent to their institution. Beyond language, other soft skills such (e.g., communication, time management, ethics) build more market-ready graduates as well as students who can better conduct research as part of their graduate program. The key questions to address in developing stronger graduates are:

- What are the issues faced by our graduates in the market place?
- In particular for the global language: Why is English a particularly important skill for King Saud University graduates and what precedent exists for non-Western higher education institutions using English as the language of instruction?
- What can King Saud University do to address skill issues identified for its incoming and graduating students and strengthen its graduates?

What are the issues faced by King Saud University graduates on the market place?

Interviews with employers and stakeholders have highlighted a set of issues as per the diagnostic. Although KSU graduates do have strengths in their core or technical knowledge, they have areas of improvement in their soft skills. Alumni of the university point to weakness in practical experiences, language and English skills, as well as written and oral communication skills. Current students highlight the current curriculum lacking a focus on soft skills development, specifically on the dimensions of developing abilities to problem solve, think critically, and work independently. The weaknesses extend to the hard skills, with students often weak in some core subjects such as math and science. As identified in the previous section, the input to the university is a root cause of this issue. Raising the admission bar will allow a betterment of the class environment and the quality of incoming students, but given the results of the Kingdom's graduates in international tests, it is fair to assert that KSU will need to continue to actively address the weaknesses of the high school students admitted to the university.

Why English language is particularly important skill for King Saud University graduates and what precedent exists of non-western institutions using English as the language of instruction?

In order to improve the employability of King Saud University students, it is crucial to develop English skills in King Saud University graduates and embed those skills in their day to day learning and overall experience at King Saud University. Student surveys, alumni interviews, and input from key employers have all highlighted the criticality of the English language in the work-place and its deficiency in KSU graduates. The preparatory year has done a great deal towards improving these language skills of the King Saud University students. However, upon graduating from the preparatory year and enrolling at King Saud University colleges, many King Saud University students could potentially lose those language skills if they do not get the chance to continue practicing the language in their day to day existence.

Leading universities in non-English speaking geographies have taken various approaches to their language of instruction. At one extreme, the National University of Singapore has shifted all its teaching to English, while other universities such as Tokyo, Tsinghua have selected specific schools as English speaking schools (e.g., business schools). The following exhibit documents the different approaches institutions have adopted.

Leading universities, in non-English countries, are increasingly raising their English standards

Analysis based on best universities in non-English speaking countries according to

- Shanghai ARWU for overall universities
- Financial Times (FT) ranking for MBA programs in business schools

General		
University	Rank*	Language
• Univ. of Tokyo	19	Japanese (English courses in 5 Schools***)
• ETH Zurich	24	German (English courses at M.Sc. level)
• Univ. Copenhagen	45	Danish (English for 3 rd /4 th year and MA stud.)
• Uppsala Univ.	71	Swedish (English for 3 rd /4 th year and MA stud.)
• NUS	110	English
• Seoul Natl. Univ.	162	Korean (~10% of courses in English)
• Tsinghua Univ.	238	Chinese (only 8 MA programs in English)
• Univ. Hong Kong	260	English

Graduate School of Business (MBA program)			
University	Country	Rank**	Language
• Insead	France	5	English
• IE	Spain	6	English or Spanish
• Ceibs	China	8	English
• IESE	Spain	12	English
• IMD	Swiss	14	English
• ISB	India	15	English

Tendency towards English

- As a strategic action to internationalize the institution (Univ. of Tokyo)
- In countries whose language spread is restricted (e.g., in Denmark, Sweden)
- To attract international faculty to support improvement of program and own faculty's capabilities (e.g., in Singapore and Hong Kong)

- All leading business school teach in English to attract international faculty
- English allows school to be accessible by students from all countries
- English considered global business language

* Shanghai ARWU Ranking 2008; ** FT Business School Ranking 2009
 *** Graduate Schools of Medicine, Engineering, Agricultural & Life Science, Frontier Sciences, and Interdisciplinary Information Studies
 Source: Interviews; university websites; McKinsey

What can King Saud University do to address the issues identified in its incoming and graduating students and build stronger graduates?

In order for King Saud University to be a competitive university, it will need to become more selective in its admission criteria and reduce the number of students it admits annually as defined in the previous strategic objective. It

will also need to complement these initiatives by strengthening the current student offering in order to better address the needs of its stakeholders.

Initiative 4.1.: Differentiate and strengthen preparatory year among 3 broad academic areas to increase its impact

Currently only students at the colleges of engineering, computer and information systems, architecture, business administration, health colleges, sciences and agriculture go through the preparatory year. From next year onwards, King Saud University is planning to introduce the preparatory year for the College of Education, and College of Languages. King Saud University should continue to do this, gradually including it in the curricula of all colleges, until every King Saud University student has to go through the preparatory year program. This is imperative given most high school graduates in the Kingdom have poor mathematical and science skills prior to entering university. In fact, according to TIMSS 2007 analysis, 82% of Saudi Arabian students had mathematical skills below the benchmark (world average is 30%) and 48% had science skills below the average (world average is 23%).

The feeling among students meanwhile is that their high school preparation does not equip them to handle university: as many as 60% of them found their entry year at King Saud University challenging. Faculty members reinforced this message, saying that in their experience a lot of the entry level students lacked basic skills in English, time management and writing. In order to align King Saud University with benchmarked universities whose undergraduate programs have 4 years of college level coursework the preparatory year should be considered as an additional year and not as the first of the 4 years of college level work. Most of the preparatory year content is focused on skill development and pre-college level coursework,

King Saud University should include an element of core foundational courses in addition to its broad offering in skill development in the preparatory year. There should be a combination of courses that is open to application by every student and three tracks (Science & Engineering, Arts & Humanities and Health) of core foundational courses that would depend on the particular field of study. Students applying to King Saud University would need to apply to one of those three tracks, and would get a conditional acceptance in a major

based on their performance in the preparatory year placement exam.

At the end of the preparatory year, students should have a placement exam that requires a minimal standard in all of the subjects included, as well as college-specific exams for the foundational elements of the program. Acceptance to university will depend on the particular preference of the student in question, his/her performance in the preparatory year and the admissions test result.

For students who fulfil the preparatory year requirements a summer experience prior to the beginning of the first semester of the school year is recommended. A set of options exist on some of these dimensions of this recommendation.

Options for preparatory year			
	Option A	Option B	Option C
PY exit option	<ul style="list-style-type: none"> Student automatically fail if minimal requirements are not met 	<ul style="list-style-type: none"> Student asked to take remedial summer classes if they fail to requirements If still failing, student will be asked to leave KSU 	<ul style="list-style-type: none"> Students given option to enter in college with lower requirements if failing to meet minimal requirements
Summer experience	<ul style="list-style-type: none"> All colleges design a compulsory summer experience at the end of the preparatory year, e.g., community service project, or summer practicum at a major employer 	<ul style="list-style-type: none"> Only priority colleges design mandatory summer experience after the end of preparatory year, e.g., community service project, or summer practicum at a major employer 	<ul style="list-style-type: none"> Optional summer experience after the end of preparatory year, e.g., community service project, or summer practicum at a major employer
+	<ul style="list-style-type: none"> High quality students selected Performance-based motivation Summer used for experiential learning 	<ul style="list-style-type: none"> Minimal requirements maintained Inclusive system to increase quality of KSU students 	<ul style="list-style-type: none"> All students enter university Provides choice to students regarding summer experience
-	<ul style="list-style-type: none"> Students that fail preparatory year need viable options Summer placement availability No break for students 	<ul style="list-style-type: none"> Capacity for remedial classes need to be created Experiential learning only in priority areas 	<ul style="list-style-type: none"> Lower motivation to perform during the preparatory year Value of summer experience, if it is optional, not clearly stated
Criteria for selecting an option: <ul style="list-style-type: none"> Ease of operational implementation Social acceptance 			

Source: team analysis

Initiative 4.2: Embed innovative teaching methods throughout KSU programs (e.g., case studies, problem based and cooperative-collaborative learning, student presentations, classroom technology)

As students graduate from the preparatory year program, the acquired skills are not reinforced in all colleges. The students effectively lose their skills by the time they graduate. To align King Saud University with best practice in benchmarked universities, experiential learning should be practiced throughout the curriculum and students should be encouraged to register for independent work facilitated by faculty. Other benchmarked universities employ a variety of teaching styles such as case studies, discussions, face to face feedback, problem-solving sessions, role-plays, simulations, and team projects. Stronger faculty processes and the introduction of a Teacher's Academy should help faculty deliver a better learning experience. Additionally, the university should require all departments to launch a curriculum review to embed these teaching methods within their programs, supplemented by visits to international counterparts to bring these methods to King Saud University.

Initiative 4.3: Launch Teacher's academy to support and develop faculty skills

Raising the level of soft and hard skills of our graduates will require a concerted effort from all members of the teaching corps. A culture of continuous improvement, supported by a Teacher's Academy for new and existing faculty will ensure the latest teaching methods are used. Based on Harvard Medical School's Teacher Academy, the KSU Teacher's Academy will provide basic training for all new faculty covering teaching approaches and methods, followed by annual refreshers as well specialized trainings (presentations, conferences, etc.)

Initiative 4.4: Raise English skills requirements for graduation

Some English courses must be made mandatory for all King Saud University students. English is a skill, like mathematics and science, which students must master in order to be successful in their graduate or market. How much emphasis the University decides to place on this particular skill will depend on the particular discipline, faculty's fluency in the language, industry needs in the field of study, the impact on the cultural identity of the students, and how

much this emphasis will help attract or drive away international faculty and students. A university-wide policy requiring a certain level of proficiency in English, variable in each department, will provide flexibility to adopt a wide set of measures adapted to a department's situation (faculty strengths, need from market place, current status of student English skills).

Options for English as a required skill for KSU graduates			
	Option A	Option B	Option C
Required standard	<ul style="list-style-type: none"> Students and faculty are required to take intensive English courses that would qualify them to be at a minimum of IELTS 7* 	<ul style="list-style-type: none"> Students and faculty are required to take intensive English courses that would qualify them to be at a minimum of IELTS 6** 	<ul style="list-style-type: none"> Students and faculty are required to take intensive English courses that would qualify them to be at a minimum of IELTS 5***
Impacted colleges	<ul style="list-style-type: none"> English is the mandatory language of teaching, research and communication between students and faculty across all colleges of KSU 	<ul style="list-style-type: none"> English is the mandatory language of teaching, research and communication between students and faculty in priority colleges, except for the school of education 	<ul style="list-style-type: none"> Language of instruction remains as today, with English as an additional subject, until the student passes at the IELTS 5*** level
+	<ul style="list-style-type: none"> High quality of graduates' language skills for job market Students ability to participate in international exchanges 		<ul style="list-style-type: none"> Minimal funding requirements
-	<ul style="list-style-type: none"> Funding needed for courses 		<ul style="list-style-type: none"> Inability to match the skill levels of graduates from other institutions
Criteria for selecting an option: <ul style="list-style-type: none"> Level of faculty capability Industry needs in the field of study Impact on cultural identity Need to attract international faculty 			
<small>* Level 7 has operational command of the language, generally handles complex language well and understands detailed reasoning ** Level 6 has generally effective command of the language, can use and understand fairly complex language *** Level 5 has partial command of the language, though is likely to make many mistakes; able to handle basic communication in own field Note: Priority colleges are Health colleges, College of Business Administration, Engineering, Computer Sciences and Education Source: team analysis; IELTS website</small>			

Summary

- What are the issues faced by our graduates on the market place?

Although KSU graduates do have strengths in their core or technical knowledge, they have areas of improvement in their soft and hard skills. Alumni of the university point to weakness in practical experiences, language and English skills, as well as written and oral communication skills.

- **Why English particularly is important skill for King Saud University graduates and what precedent exists for non-western institutions using English as the language of instruction?**

King Saud University graduates currently have weak English skills and are less competitive in the job market than graduates of other universities because of this. There is a general tendency towards using English in order to attract international faculty and students to support program improvement, and to enable the institution's faculty to effectively interact with global peers at conferences and through publications. In programs such as business, all leading institutions teach the complete program in English.

- **What can King Saud University do to address issues identified for its students and build stronger graduates?**

In order to address to improve the readiness of new admits, KSU should create 3 preparatory year tracks (health, science and engineering, arts and humanities) differentiating foundational courses but with common skills development component. Additionally, a preparatory year graduation requirements and create summer internship/voluntary work program for preparatory year graduates should be implemented. To support the skills acquired during the preparatory, the existing program curriculum will also need to updates. A curriculum review in each department aimed at introducing modifications to improve student learning should be launch; supported by visits to global higher education institutions, bringing relevant teaching methods to KSU. Faculty at KSU will be provided support in learning how to be effective instructors and sharing best practices. Finally an English level requirement for students should be established supported by a provision of intensive language courses and setting IELTS test exit requirements (IELTS 6 in Health, Business and Engineering; IELTS 5 in all other).

Strategic objective #5: Building bridges

Most leading universities, including public institutions, establish connections with external parties. This includes influential business and academic leaders and alumni as advisors and other institutions in collaborative relationships.

Just as powerful, especially for a large institution such as KSU, building connectivity internally can have significant benefits. Cross-pollination of ideas and talent, and performance of interdisciplinary research is enabled by having a strong internal fabric. In order to develop the appropriate strategy for connecting to internal and external parties, the key questions to consider are:

- How do global universities embrace external input and what benefits do they realize in doing so?
- How do global universities encourage interdisciplinary work within its institutions?
- What can King Saud University do to build bridges internally and externally?
- How can KSU make a greater contribution to Saudi society and its surrounding community?

These questions are discussed in detail in the following sections:

How do global universities embrace external input and what benefits do they realize in doing so?

Leading universities use a structured approach to stakeholder management in order to maximize benefit. Typically, this includes advisory boards, twinning programs with peers and partnership with industry. Each of these provides the University with a set of benefits described next along with examples of each.

Advisory boards at the institutional level provide impartial strategic input on the direction of the university. They typically include membership from leaders in the private sector and government, as well as education experts of leadership of other academic institutions. External stakeholders adopt the perspective of the overall university, not representing interests of the different individual constituents of the university (e.g., students, faculty, staff and parents). External stakeholders also provide an external view on and contacts to the non-academic world (i.e., industry and community). Beyond advice, they can provide a significant source of funding either through straight donations or indirectly by establishing connections and access to the potential donors. Additionally, they help build the reputation of the university in the wider commu-





















nity. Examples of leading universities effectively leveraging advisory boards at the institutional level are the international advisory board of the University of Tsinghua and the board of trustees at the universities of the University of California system.

Advisory boards at the school level help guide teaching and research priorities through the provision of an understanding of the fast changing needs of the market. They can provide access to internship and employment opportunities for graduates. Moreover, they help faculty and students build direct links with industry. Tsinghua University School of Economics and Management has a large advisory board, consisting of elite business leaders, visionary government officials, and renowned scholars from international business and academic institutions. This advisory board has helped the school establish extensive international links, build up research centre's, and receive valuable ideas for its strategic development.

Case study

The large advisory board of Tsinghua's School of Economics and Management provides high-level strategy input and valuable network and influence

Active members of the SEM advisory board*




Corporations	 <ul style="list-style-type: none"> • L. Blankfein (Chairman and CEO) • H. Pahlson (Ex-CEO) • J. Thornton (Ex-President, Global leadership professor) 	 <ul style="list-style-type: none"> • Rajat Gupta (Former Managing Director) 	  <ul style="list-style-type: none"> • J. Bond (Chairman of Vodafone, Ex-CEO of HSBC) 	 <ul style="list-style-type: none"> • V. Fung (Chairman)
	 <ul style="list-style-type: none"> • C. Galvin (Ex-CEO) 	 <ul style="list-style-type: none"> • C. Ghosn (CEO) 	 <ul style="list-style-type: none"> • T. Hayward (CEO) 	 <ul style="list-style-type: none"> • N. Idei (Ex-CEO)
	 <ul style="list-style-type: none"> • J. Orilla (Chairman) 	 <ul style="list-style-type: none"> • D. Rubenstein (Managing Director) 	 <ul style="list-style-type: none"> • S. Schwarzmann (CEO) 	 <ul style="list-style-type: none"> • H. Lee Scott (CEO)
	 <ul style="list-style-type: none"> • G. Richard Wagoner (CEO) 	 <ul style="list-style-type: none"> • J. Chateauvieux (CEO) 	 <ul style="list-style-type: none"> • G. Kleirstee (CEO) 	 <ul style="list-style-type: none"> • R. Tachikana (Ex-CEO)
Academic institutions	 <ul style="list-style-type: none"> • J.O. Light (Dean) 	 <ul style="list-style-type: none"> • J. Roberts (Senior Associate Dean) 	 <ul style="list-style-type: none"> • D. Schmittein (Dean) 	

* Having attended at least one session of the meetings over the past two years
 Source: University website

Twinning programs are partnerships between 2 or more institutions for the purpose of joint research and teaching. They include collaboration on research through oversight or joint activities, best practice exchange for both research and teaching, student exchange programs and faculty sabbaticals. Examples of twinning programs include the NUS-Duke graduate medical program and the Erasmus network for student exchange in Europe.

Partnerships with industry provide insight into industry priorities and trends and opportunities for collaboration and technology transfer through applied research to help advance the national and global economy. Moreover, they provide students with hands-on learning through internships and lectures by industry leaders. Outstanding partnerships include the ‘IBM-Stanford Spintronic Science and Application Centre’ and the ‘Nokia Research Centre for Mobile Computing at MIT’.

Twin programs can help raise current capabilities and outputs in priority areas, as well as improving the overall offering to students

	Case example	Key elements	Impact
Comprehensive partnership	 <p>DUKE NUS GRADUATE MEDICAL SCHOOL</p>	<ul style="list-style-type: none"> • Research focused relationship formalized in 2005 at the Medical school level • ~\$400 M in funding provided by NUS • Co-development of research priorities • Usage of Duke standards and guidelines <ul style="list-style-type: none"> – Faculty hiring and promotion criteria – Curriculum design – Admission criteria • Veto on all decisions by Duke representatives 	<ul style="list-style-type: none"> • 100% increase in student application • Student outcomes at par with Duke cohort • 50+ faculty with strong publication record hired in 4 years • 7+ international awards for faculty
Opportunistic/ topic based	 <p>NUS MIT Cambridge</p>	<ul style="list-style-type: none"> • Topic/department based relationships e.g. <ul style="list-style-type: none"> – Electromagnetic meta-materials with MIT – Organic semiconductors with Cambridge • Joint research decision making, funding with assigned professors from each institution • Location of laboratory varies 	<ul style="list-style-type: none"> • 1000+ collaborative topic based research areas developed with local, regional and international partners • Acceleration of research outputs measured • Opportunity for NUS students to get joint-supervision
Teaching	 <p>erasmus 1987 - 2007 Erasmus</p>	<ul style="list-style-type: none"> • Large scale multi-national program with over 290 higher education institutions in more than 30 countries • Credit equivalence system ensures course work is recognized by student's home institution • Financial support for students and faculty 	<ul style="list-style-type: none"> • ~180k (10%) student participants per year with 50-70% reporting experience as a factor leading to 1st job • ~25,000 faculty participants with 60% of faculty reporting improvement in research network; 40% in new teaching methods

Source: team analysis, expert interviews, university websites

How do global universities encourage interdisciplinary work within their institutions?

Universities have approached the development of interdisciplinary area from 2 perspectives:

- Build an organizational culture and structure conducive of interdisciplinary interaction and support this bottom-up approach by funding competitively interesting projects
- Target specific areas that are necessary for the school to focus on and develop distinctiveness

At Stanford University, both approaches live and succeed in parallel. The University provides, through grants targeted at cross-disciplinary work, the right incentives to encourage professors from different department to work jointly. In addition, as part of the Stanford Challenge, the University has targeted areas of distinctiveness; interdisciplinary in nature such as Education Research for California bringing together departments of arts, sciences, mathematics, physics and the college of Education in order to develop new pedagogical methods and tools for the high school system in California.

What can King Saud University do to build bridges internally and externally?

King Saud University has already made some progress in connecting with the broader community. For example, the deanship of Knowledge Exchange and Technology Transfer (KETT) is driving connectivity with several initiatives. One of them is the twinning program that has established relationships and signed MoU's with various universities that could provide broader research and teaching collaboration relationships. Other examples include the research chairs and in fact the development of this very strategic plan with significant input from the external community. Still, these worthy efforts have not been institutionalized and are not centrally managed and so could benefit from a more formalized and holistic approach. Below we make 3 recommendations towards building stronger ties with community outside of King Saud University. They are:

- a) Create an institutional advisory board for King Saud University;

- b) Create advisory boards on the level of schools or faculties;
- c) Create an external relations office and strategy;

Initiative 5.1: Create institutional advisory board:

King Saud University should create an institutional advisory board of higher education, government, and business leaders. This board will act as an advisory body on global education and business trends, strategic directions and options, and the anticipating of new trends. Criteria that should be considered include the level of industry ties needed, the expected role of the board members and the feasibility of attracting members.

Initiative 5.2: Create advisory board for each faculty:

King Saud University should create local advisory boards for groups of schools (clustered around a discipline or common theme) consisting of local employers and community leaders and influencers. This board will provide King Saud University with an understanding of market needs, feedback on curriculum design and adaptation, internship and job opportunities. There are different options in terms of the set up of the advisory board at the institutional and the schools/faculties level. Criteria that should be considered for deciding on the appropriate option include the level of industry ties needed, the expected role of the board members and the feasibility of attracting members.

Options for building bridges			
	Option A: Internationally focused	Option B: Regionally focused	Option C: Locally focused
Institutional advisory board	<ul style="list-style-type: none"> • International advisory board with <ul style="list-style-type: none"> – International higher education leaders (Rectors) – Global business leaders – Key regional influencers (e.g., Ministers) • Provides advisory support and strategic counsel 	<ul style="list-style-type: none"> • Regional advisory board with <ul style="list-style-type: none"> – Regional and emerging higher education leaders, especially in KSU areas of priorities – Regional business leaders – Key local influencers, especially on priority areas • Provides advisory support 	<ul style="list-style-type: none"> • Local advisory board with <ul style="list-style-type: none"> – Local higher education leaders (e.g., Rector from KFUPM) – Regional business leaders – Key local influencers, especially on priority areas • Provides ad hoc advisory support
Faculty advisory board	<ul style="list-style-type: none"> • Local advisory board, for groups of schools, with <ul style="list-style-type: none"> – Local employers – Community leaders • Provides feedback on market needs, curriculum design, internship and job opportunities 	<ul style="list-style-type: none"> • Local advisory board, for priority schools only, with <ul style="list-style-type: none"> – Local employers – Community leaders • Provides feedback on market needs, curriculum design, internship and job opportunities 	<ul style="list-style-type: none"> • Ad hoc local advisory board with <ul style="list-style-type: none"> – Local employers – Community leaders • Provides feedback on market needs and curriculum design
+	<ul style="list-style-type: none"> • Close ties to global decision makers • All schools profit from a board 		<ul style="list-style-type: none"> • Higher feasibility
–	<ul style="list-style-type: none"> • Difficulty of attracting relevant people • High financial commitment 		<ul style="list-style-type: none"> • Lack of global perspective • Not permanent advice available to all schools
Criteria for selecting an option:			
<ul style="list-style-type: none"> • Level of industry ties needed • Expected roles of board members 		<ul style="list-style-type: none"> • Feasibility of attracting members 	

Source: team analysis

Initiative 5.3: Create external relations office and strategy:

King Saud University should establish in all departments, especially in priority areas, key partnerships with higher education institutional peers. These partnerships can improve short term faculty capacity or capability deficiencies at King Saud University, offer international exchange programs for graduate and undergraduate students, provide visiting professorships for new and senior King Saud University faculty and offer opportunities to collaborate on joint research projects. Currently King Saud University has started developing twinning programs – but the effort is still in its early stages with loose collaboration with approximately 30 institutions. The aspiration would be to develop this further into robust relationships with clear and complementary objectives across relationships and structured performance management. In addition to advisory roles and twinning programs, King Saud University must build stronger ties with the business community through the creation of:

- Joint training ventures – Multinationals and local companies are constantly looking for skilled resources for their Saudi operations. A joint effort to train King Saud University students will be a win-win for both the university and these firms.
- Knowledge clusters – King Saud University is well positioned to drive knowledge and industrial development in the kingdom. The Riyadh Techno Valley is one example of an initiative that brings together academic researchers and private companies in a cluster to drive innovation and development in various sectors. King Saud University should manage this effort and ensure success through focus and alignment with needs of the different stakeholders.
- Applied research priorities – King Saud University should continue to manage its industry supported Research Chairs. Ensuring that best practices in funding allocation as well as management are implemented will secure adequate stewardship of the donor's funds.

Initiative 5.4: Provide competitive grants to foster interdisciplinary research and programs

As part of fostering interdisciplinary interactions, King Saud University should complement its focus areas (Strategic objective #1) with a more bottoms-up approach. This recommendation focuses on two dimensions

- Provide a central fund for interdisciplinary research requiring at least 3 different departments to come together and propose an area of applied research that can be relevant for KSU or KSA. Faculty should be encouraged to find additional funding in the private or public sector to supplement these funds, and truly demonstrate the market relevance of their research
- Create the KSU Global Leadership in Research series, which promotes monthly presentation by faculty and graduate students to the KSU community. The series should periodically showcase areas of success in interdisciplinary.

How can KSU make a greater contribution to Saudi society and its surrounding community?

Currently, despite the prominent space that KSU occupies in Saudi society, there is no systematic way to ensure the engagement of KSU students and faculty with society at large, such as an obligation to work with the community in specific projects or with specific groups. KSU should use its institutional status as a force that will help develop the fabric of Saudi society and its relationship with the world at large.

This would enable KSU to give something back to society and KSU members, especially students, to become fully engaged citizens.

Initiative 5.5: Engage KSU fully with Saudi society through the establishment a community outreach program

KSU should provide a program that ensures that its members (both students and faculty) engage with the Saudi community and make a meaningful contribution to it. This would further enable students in particular to become active citizens who are aware of their surroundings.

In order to ensure formalize the program, KSU should implement a requirement of a 2-month summer term dedicated to community service during the course of their studies, as well as a commitment to participate in community activities throughout their degrees (e.g., 80 hours per academic year dedicated). Community service for students can take a variety of forms, such as work with NGOs, mentorship of school children, work in public interest projects and institutions such as hospitals, promoting the understanding of Saudi society abroad, etc. The students would be required to provide an account of their summer and academic year activities. A committee of dedicated faculty should be set up to be in charge of launching and overseeing the program.

Similarly, all faculties would also have an obligation to reach out to the Saudi community beyond the University walls. They would have a commitment of dedicating two full days a year to these activities. Example activities would include lecturing in schools, mentoring school teachers, and contributing with specialized knowledge to local communities. While their contribution should not be evaluative, it should have some input into the final report.

Recommendation 5.6: Create a robust career services office

Beyond the purely academic, the student experience is complemented and improved through adequate counseling and guidance, a great environment in terms of learning resources and infrastructure; and excellent student life in terms of extracurricular activities. Counseling is an integral part of a university's mission to help students transition to adult life. It has two main components: academic advisory and career advisory. King Saud University should strengthen both these advisory services, mirroring the best practices identified in the diagnostic at University of Pennsylvania and National University of Singapore. The counseling should provide academic and career related workshops, tools to help students assess where their strengths lie and what professions they may be interested in, while also providing help in preparing for interviews, resume writing etc. As a second component, the career services office should also provide a meaningful database of employer information, including a job bank for new graduates; as well organize career fairs.

Summary

- **How do global universities embrace external input and what benefits do they realize in doing so?**

Leading universities have a structured and comprehensive approach to stakeholder management through advisory boards, twinning programs and ties with the business community.

- **How do global universities encourage interdisciplinary work within its institutions?**

Global institutions used varied methods to encourage interdisciplinary research. In many cases the culture of the University or its setup is propitious to ensuring such collaboration, but many universities either have a top-down approach (setup a centre on a specific topic interdisciplinary in nature) or encourage the grassroots movement (setup grants and funds that are only given to interdisciplinary ideas; share through internal seminars)

- **What can King Saud University build bridges internally and externally?**

Currently, King Saud University has limited interactions with stakeholders.

The endowment board is mostly a fundraising board. Employers are providing practice opportunities through initiatives like the twinning program and international institutions have signed MOU's to establish relationships with KSU. However, these efforts are still early in their development and are not fully structured. The next step is to develop them further through clarifying objectives and making them contribute to the student and research experience in a formalized manner. King Saud University can establish an institutional advisory board, school (or group of schools) level advisory committee and involve the business community to guide research. Internally, King Saud University can encourage bridges between faculties by a) fostering an entrepreneurial environment whereby funds and recognition are made available for distinctive multi-disciplinary efforts; and b) by fostering intramural conferences and seminars for faculty and graduate students to attend. While KSU has an important position in Saudi society, there is no systematic way through which its members engage with it beyond the formal requirements. A formal community service requirement for students and faculty should be put in place. It would serve the dual purpose of addressing the needs of the community as well as making students and faculty more effective Saudi citizens through increased social awareness.

Strategic objective #6: Supportive learning environment

The quality of a university experience is not just dependent on the strictly academic or curricular elements that are a part of the institution. It is not just about lectures, exams, practicum, research papers and theses. It is also shaped by the environment in which the learning and research experience takes place and how the members of the academic community engage with each other and society at large.

When thinking about its environment, there are two main domains that KSU should consider: firstly, the internal environment of the University, which includes the physical (including technology) infrastructure, the quality of the relationships between different members of the academic community, and the activities that make this a vibrant community; secondly, the level of engagement of KSU with the rest of the Saudi community and its contribution to it.

With these 2 components in mind, the central question that KSU should address is:

- How can KSU improve its internal environment for faculty, staff and students alike?

How can KSU improve its internal environment?

KSU boasts an impressive physical campus structure as well as major infrastructure upgrades projects underway (e.g., female campus). Nevertheless, faculty and students alike agree in their dissatisfaction with the physical environment they work in. According to the surveys done as part of the Strategic Planning effort, with 747 student respondents and 557 faculty respondents, 52% of students are dissatisfied with the campus buildings, while the figure is 60% in the case of faculty. Similar concerns are raised with regard to the IT infrastructure (37% of students dissatisfied), technical equipment (53% of faculty dissatisfied) and classroom space (45% of students dissatisfied). There are also major concerns around the social facilities available, including the quality of dining facilities and study facilities. Solving these infrastructural issues is a necessary step for KSU to become a world-class university.

The community at KSU is not as integrated and vibrant as it can be. Students, for instance, complain that their voices are not always heard by faculty and that they have limited say in the way KSU is run. Similarly, it is often unclear to students, faculty and staff alike what they can expect from KSU and what their obligations and accountabilities are to the institution, which often leads to frustration.

Furthermore, the KSU community still does not support students adequately in pursuing their interests beyond the lecture room through an adequate student life and sufficient extracurricular activities. The number of student societies at KSU is the lowest of all the benchmarked universities. As a result, student opportunities to explore their interests beyond academic activities and further develop their soft skills are scarce.

From the issues observed, three recommendations arise.

Initiative 6.1: Launch campus infrastructure review and upgrade

Upgrading and developing the campus infrastructure at large constitutes a necessary condition for the development of the University. The most urgent needs that the student and faculty surveys point to are:

- The improvement of the quality and equipment of the lecture rooms in a way that is prepared to accommodate high quality teaching and facilitate the interaction of students. This is particularly acute in the ladies' campus, as high quality technological equipment is required for adequate interaction with male teachers.
- The development of libraries and communal areas such as cafeterias, social and study areas in terms of furnishing, IT equipment and their general maintenance levels. These are all necessary for KSU's ambition to have a great learning university with a vibrant community of students, as they enable independent work and collaboration.

The prep year facilities already in place provide a great example within the institution of what a great building in which to develop KSU's learning mission is.

With the 20 year horizon in mind, KSU should ensure appropriate use of technology to support its development. This should include online availability of curriculum/offering descriptions, lecture transcripts and the use of online communication for interaction with instructors and peers. Increasingly, university environment and infrastructure include both the physical and virtual.

Initiative 6.2: Detail student, faculty and staff code of conduct

Universities throughout the world (including several of the benchmarked universities such as Harvard, MIT, Oxford and NUS) have developed a student charter that contains a detailed account of what students can expect from the University and what their obligations are in return. This has proven a useful and ultimately necessary tool for the development of a healthy relationship of students with the university that enables them to engage fully with it. It is also useful for setting the expectations of students from the outset and thus ensuring

ing they receive fair treatment and that frustrations are avoided.

KSU should follow suit and develop a student charter that will outline the rights that students have and what they can expect from the University, through the creation of an adequate committee of representation. The enforcement of this charter should be complemented by the creation of the figure of an ombudsperson and an adequate judicial faculty committee at the university level.

In addition, and although the relationship of staff and faculty with the University is for the most part currently regulated by governmental rules, a similar charter for staff and faculty should be created over time. This is especially relevant given the progressive reform of KSU's relationship with the Government, which will require a new relationship of KSU with its faculty.

Initiative 6.3: Develop extracurricular activities portfolio

A rich student life and, in particular, ample opportunities to participate in extracurricular activities constitute an important element of the student experience. The participation in student societies such as sports clubs, debating societies, discipline-based societies, recreational societies, employment-related and societies of other kinds provide opportunities for students, which would serve the purpose of firstly, complementing their experience beyond the purely academic and providing an opportunity to explore other fields and activities of their interest. As they are typically self-managed and involve heavy interaction between students they enable the development of soft skills such as teamwork, leadership skills, multi-tasking, etc.

KSU should acknowledge the importance of these activities and fully support students in the development of such societies, with funding in place to support their events, tours, etc., and administrative and infrastructure support (e.g., meeting rooms). It should also have a dedicated team of faculty and staff that are able to oversee these activities and ensure that they are aligned with the University's goals.

Initiative 6.4: Create a student governing body

In order to support the student voice at King Saud University, and provide out-

lets for students to develop teamwork, leadership, oral communication skills, while managing the extracurricular activities developed, King Saud University should create a student governing body to represent the student voice at KSU and to liaise with KSU leadership on instructional and community issues. The body, under the patronage of the Dean of student affairs would be led by students and ensure the student voice is heard on both the male and female campuses.

Initiative 6.5: Launch annual environment and infrastructure survey

Students, faculty and staff should be given a chance at the end of every school year to appraise their university on multiple dimensions. Incorporating the results of this assessment into the faculty yearly appraisal (for the student survey) as well as in the refresh of the university strategy would communicate the leadership's commitment to continuous improvement, while fostering communication between all the stakeholders in the university.

Summary

- How can KSU improve its internal environment for faculty, staff and students alike?

Currently, the levels of satisfaction of faculty and staff with the physical infrastructure of KSU are low. At the same time, some members of the KSU community are sometimes not fully engaged and thus frustrated and the student life is not sufficiently rich beyond the lecture room. KSU should make an effort to significantly improve its campus infrastructure, provide its members (student, faculty and staff) with charters that outline their rights and responsibilities and foster a richer student life through the support of extracurricular activities. Finally, KSU should create a student governing body to represent the student voice.

Strategic objective #7: Sustainable future

In order for KSU to achieve its strategic goals it will need to execute several

transformation programs, many of which will require significant resources. KSU will need to ensure the right amount and stability of finances for these efforts. KSU has recently started to address this need. It has established several research chairs and started its endowment fund. With this context as the backdrop, there are 3 key questions for consideration:

- Why should KSU diversify the sources of funding and build an endowment?
- How should KSU manage its funding activities?

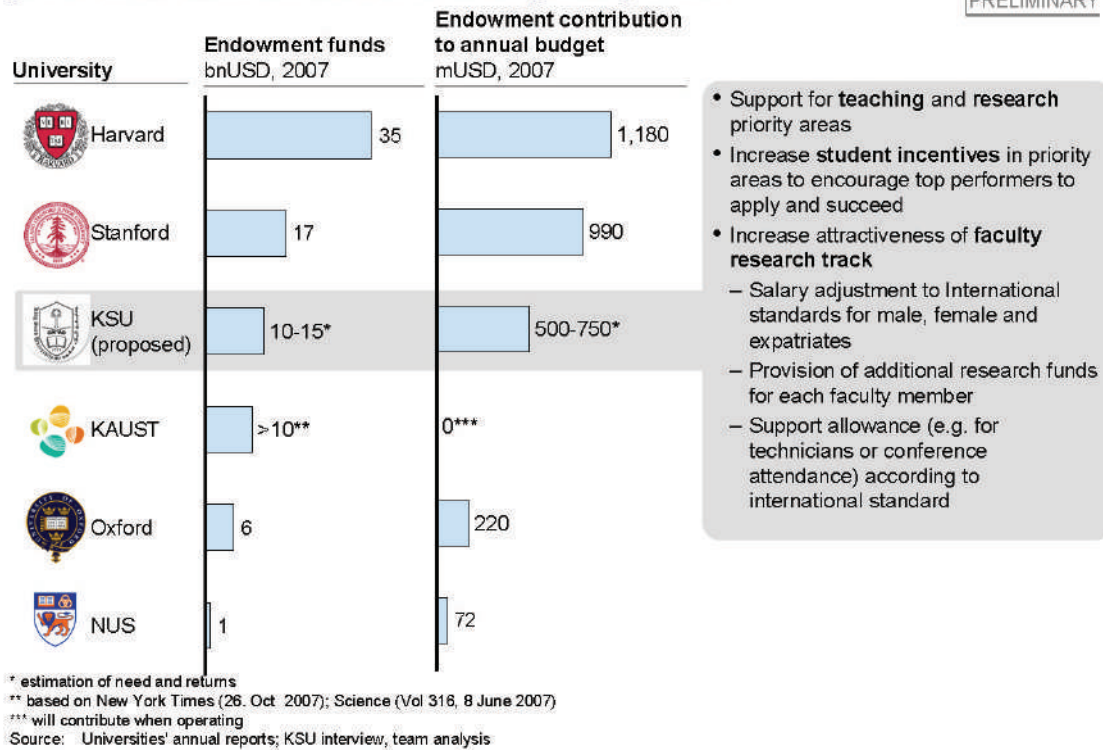
We address the general need below. The actual figures and financing required will be discussed in the implementation portion of the strategic plan

Why should KSU diversify sources of funding and build an endowment?

King Saud University currently gets 97% of its funding from public sources and has a budget of about \$ 15,000 per student per year. This amount is already low in comparison with other leading universities (e.g., ~30k at NUS, ~47k at Berkeley). Moreover, with the significant transformation demanded by the new strategic direction, the requirement for funds will increase tremendously. To support this requirement, leading universities have an endowment exceeding \$ 10 billion and an annual contribution to the budget of \$ 500 to 1,200 million.

Raising a USD 10-15 billion endowment will allow KSU to dedicate predictable financial resource to its priority areas

PRELIMINARY



For European universities such as Oxford, endowment building efforts have recently been required to diversify their source of funding, which has allowed them to meet significant shortfalls arising from public funding limitations. Although endowment-building has been a common activity for some time in the US, it is a path that has only recently been taken up by universities elsewhere.

Initiative 7.1: Diversify sources of funding by cultivating target donor relationships

Diversifying KSU's sources of funding has several advantages. First, it can translate to a larger pool of resources overall. Second, by receiving private funds in addition to the government allocation, KSU has a stronger rationale for the increased flexibility it seeks in governing itself. Specifically, KSU

will also be able to allocate funds internally independent of the perspective of governmental institutions. This enables placement of money to initiate an endowment fund that can ensure long term sustainability through a continuous income stream. Sustainability and flexibility will enable the University to engage in activities that are better aligned with market demand, which should have a positive impact on teaching and research. An endowment can provide KSU with a sustainable stream of funds for financing its operations and special projects. Our recommendation is that KSU continues to build this further. Since the amount of funding needed depends on the options chosen for the previous recommendations, we do not discuss the exact size of the fund in this section. We focus on the set up and management of the fund instead.

Diversifying sources of funding, either for the endowment or for direct funding of initiatives will require an active setup and a strategy tailored to each donor group. Initially, KSU will need to create a potential donor list (students, alumni, high net worth individuals, corporations) and establish a relationship plan for each major donor group highlighting their funding preferences. Generally, major donors require active personal cultivation, with a high touch approach, whereas new alumni and students prefer a broader approach led by their peers. Universities worldwide leverage new alumni to reach out their class, or student government and representatives to encourage giving to a cause that is dear to them. Loyalty to a school has to be harnessed early and involving current students in fundraising, however small, is crucial (e.g., by contributing part of their stipend).

Once the target groups and plans are completed, KSU will need to execute. This will involve outreach, communicating high level vision and strategy, follow-up (e.g., with thank you memoranda and/or information updates to assure donors that the University is keeping its promises and making progress against its aspirations), and recognition as appropriate for donors.

Initiative 7.2: Create annual report on how endowment is used, and its impact on KSU's community

Stewardship of funds is a central element of what makes fundraising campaign successful and sustained over time. King Saud University has raised over SAR 1 billion and is starting to invest in projects to build a steady source of

fund. As part of demonstrating its ability to manage funds well, and remaining accountable to its donors as well as building trust with new donors, an annual report describing the endowment, its status, its impact and the recognition of major donors should be published.

Initiative 7.3: Start donor recognition program

Finally, KSU should plan events to recognize donors (e.g., galas, public events, visit to new KSU facilities, etc) and establish donor-student and donor-faculty relationships. As involvement breeds engagement, increased relationships between KSU and its donors will only increase the likelihood of future gifts.

Initiative 7.4: Build an organization to support all fundraising activities within KSU

KSU today has multiple organizations responsible for fund-raising with little coordination across them. There is not a single office in charge of fundraising, rather the Rector, the Vice Rector Knowledge Exchange and Technology Transfer, the Vice Rector Graduate Studies & Research and the CEO of Business/Secretary General Endowment simultaneously drive different efforts to secure funds. This approach has been perceived as confusing by donors who are approached by multiple entities from KSU. At leading universities fundraising efforts are usually centralized. For example at Stanford, the VP for Development, who reports directly to the President, is in charge of planning, coordinating and managing the procurement program for gifts (both current use and endowment fund). He works closely with the President, the Provost and the deans to define the requirement of the university. Central coordination also allows departments to have a single point of contact to go to for initiating fundraising efforts. For example, at Stanford, departments or schools (e.g., the Business School) can get approval by the VP for Development to pursue funding from a specific group of donors. The Business School can then raise its own funds.

KSU should create a single development office responsible for fundraising to ensure alignment across its different fundraising activities. It should be created at the Vice Rector level and is useful for the purpose of focusing and

coordinating fundraising efforts.

In order to oversee their endowment, nearly all universities have created independent management companies where the universities have no say in the management of assets, beyond the setting up of the structure and guidelines in terms of policy. These entities usually consult with the university regarding long term goals and the overall risk of the investment but have a high profile investment board making the financial decisions. The 3 universities with the highest endowment fund (Harvard, Yale, and Stanford) have in the past usually outperformed both bond and stock market.

There are no options around this recommendation since it is a prerequisite for successful fundraising and endowment efforts.

Summary

- Why should KSU diversify sources of funding and build an endowment?

Leading universities have significantly higher funding per student compared to KSU. This gap is further enlarged by the need to support the initiatives arising from the strategic plan. Private funds will also allow KSU higher freedom in allocating finances to priority areas and will enable its search for a more autonomous governance model. Endowment income can be a significant source of funding. It ensures long term sustainability of income and can counter the decline or variability of other sources of funding.

- How should KSU manage its funding activities?

KSU should build a central organization to manage and coordinate its different funding activities at the Vice Rector level. This will minimize confusion with potential donors and enable a holistic approach to fund raising strategy and operation.

Strategic objective #8: Greater flexibility; Greater accountability

In order to drive significant change through its bold strategic vision, King

Saud University will need to make and execute tough decisions, act fast and firmly, be responsive to a fast-changing and competitive global knowledge economy, and change many of its current status quo processes and systems. At the moment, this is difficult to give the current governance model. As a public University, King Saud University receives its funding from the government and is thus subject to external control and influence on strategic and operational decisions. This leads to inefficiencies in its internal decision-making and constrains its ability to make significant changes. At the same time, King Saud University needs to maintain a relationship and its obligations to the government given its public status. Public universities around the world have recognized this challenge. They have generally dealt with it through the development of a “performance contract” whereby they get an increased degree of operational freedom or autonomy and in return are held accountable for delivering on certain performance dimensions back to the government. The three key strategic questions to address for King Saud University are:

- Why are public universities worldwide seeking more freedom from government to operate?
- Why does King Saud University need more freedom to operate?
- What type and level of accountability does King Saud University need to have in return for increased freedom?
- What capabilities will KSU need to strengthen in order to succeed with additional freedoms?

These questions are discussed in the next sections.

Why are public universities worldwide seeking more freedom from government to operate?

Most public universities have some government influence, usually from the Ministry of Education, typically limited to funding and strategic direction setting. In some cases this influence is broader and may impact internal governance and HR issues. Many leading public universities are moving towards a more autonomous status in order to realize increased operational flexibility and to transform their performance. Typical developments that characterize

this transition include the following:

- From civil service status of faculty/staff to faculty/staff as employees of the University because of the lack of adequate incentive for high performance in the old model.
- From bureaucratic and rigid system for appointment of faculty to a more flexible system to be able to adjust pay scale to market rates.
- From a vast majority of funds for teaching/research coming from Government to the development of independent sources of funding to be able to make faster decisions over the use of money.
- From a university governed by the Ministry of Education with public status to a university governed by a board of trustees and semi-private status to have higher independence in decision making.

An example is the National University of Singapore, which has followed a gradual path, over a fifteen year period, to achieve autonomy. Today, NUS enjoys greater flexibility in charting its own direction, making its own financing decisions, admitting students according to its own criteria, and appointing, promoting, and rewarding faculty. The scope of NUS' autonomy can be summarized around the five areas of governance, funding and financial autonomy, student admission, intake planning, and human resources:

- Governance: The university council and leadership are expected to take on greater responsibility and ownership of key decisions affecting the university. In addition, the university must set clear strategic directions and priorities, and allocate resources effectively.
- Funding and financial autonomy: Although government is to remain the principal source of funding, the university is expected to actively seek alternative sources of funding to support its priorities. Moreover, the university has the ability to decide priority areas of funding and determine tuition fees, including the option of differentiating tuitions for different courses.
- Student admission: In 2004, NUS was given the flexibility to determine the profile of 10% of its intake using independent criteria and there is scope to allow for greater autonomy in student admission over time by increasing

this percentage.

- Intake planning: Graduate manpower produced by the university must abide with the national output targets to ensure that graduate manpower produced meets the needs of the economy. However, NUS now has greater flexibility to take in foreign students over and above the output targets on a full-cost basis.
- Human resources: The University has full autonomy over appointment of all faculty and determining remuneration packages, including welfare benefits and performance bonuses for all faculty and staff.

Why does King Saud University need more freedom to operate?

Easing the institutional control on King Saud University could potentially result in greater operational and strategic flexibility, allowing the University to better respond to a rapidly changing and competitive environment, something that is crucial for King Saud University to achieve if it is to become a globally leading university.

Initiative 8.1: Develop a performance agreement with the government

With respect to strategic flexibility, it will allow King Saud University's stakeholders (i.e., senior leadership, administrators, faculty, and students) to take greater ownership in decision-making and setting the University's direction. Greater ownership will potentially foster a more entrepreneurial and innovative culture that will better position King Saud University to compete in the global higher education arena.

More operational freedom will help King Saud University adopt global best practices in areas such as human resources, performance management, and procurement and will allow for greater freedom in managing the financial resources of the university. For the 'level of autonomy', several options exist for KSU.

Options for level of autonomy

	Option A: Enhanced autonomy	Option B: Increased decisional and operational autonomy	Option C: Flexibility in funding
Level of autonomy	<p>Funding</p> <ul style="list-style-type: none"> One-line block budget over 5-year cycle Full autonomy over establishment of endowment and allocation of private funds <p>Governance</p> <ul style="list-style-type: none"> Board of trustees appointed by an internal nomination committee with authority to appoint president and full ownership of strategic and operational decisions <p>Human resources</p> <ul style="list-style-type: none"> Elimination of HR civil service scheme and enforcement of performance-based track on all faculty <p>Student admission</p> <ul style="list-style-type: none"> Set 5-year number of graduates taking into account KSU's capacity and economic needs Flexibility over determining the profile of 20% of student body 	<p>Funding</p> <ul style="list-style-type: none"> One-line annual block budget allocated at the University level Full autonomy over establishment of endowment and allocation of private funds <p>Governance</p> <ul style="list-style-type: none"> Enhanced role of University Council (e.g., appointing deans, determining programs, closing/merging departments) Flexibility over determining internal governance structures <p>Human resources</p> <ul style="list-style-type: none"> Introduction of an optional performance-based track <p>Student admission</p> <ul style="list-style-type: none"> Set annual caps on number of students to be admitted to KSU Flexibility over determining the profile of 10% of student body 	<p>Funding</p> <ul style="list-style-type: none"> High-level itemization of budget (3-4 categories) with flexibility around allocation within each category Full autonomy over establishment of endowment and allocation of private funds <p>Human resources</p> <ul style="list-style-type: none"> Enhanced civil service policies (e.g., faculty compensations and incentives)
	<p>Criteria for selecting an option:</p> <ul style="list-style-type: none"> Easy of operational implementation Level of social/political acceptance Presence of capable leadership at university Impact of change in HE landscape, in the Kingdom 		

Source: team analysis

What type and level of accountability should King Saud University assume in return for its increased freedom and autonomy?

As greater autonomy is granted to King Saud University, the Government will need to enhance accountability to ensure that Government funding is well utilized to meet the country's objectives, while simultaneously providing King Saud University with the flexibility to achieve global excellence. It is recommended that King Saud University negotiates higher flexibility with regard to operational and strategic decisions while working with the Ministry of Higher Education to craft a clear accountability framework in return for lifting direct regulations. This accountability is defined in terms of the quantity and quality of the outputs from KSU, and the associated reporting requirements. Options for levels of autonomy and corresponding accountability are shown in the Exhibit below.

Options for accountability

	Option A: Enhanced autonomy	Option B: Increased decisional and operational autonomy	Option C: Flexibility in funding
Accountability framework	<ul style="list-style-type: none"> • Policy agreement: Agreement between KSU and MoHE which sets strategic direction for the sector and broad boundaries for KSU's autonomy • Performance agreement: Agreement between KSU and MoHE which articulates KSU's strategic goals and desired outcomes over a 5-year period • Quality assurance framework: <ul style="list-style-type: none"> – Self-assessment against a number of institutional goals – Key performance indicators agreed upon with MoHE – Annual performance report submitted to the MoHE – Annual validation by an international committee 	<ul style="list-style-type: none"> • University Council members selected by MoHE, including president, university administrators, alumni, and government officials • Quality assurance framework: <ul style="list-style-type: none"> – Self-assessment against a number of institutional goals – Key performance indicators agreed upon with MoHE across four areas: governance, teaching, research, service – Annual performance report submitted to the MoHE – Annual onsite validation by a leading international committee commissioned by the MoHE to review programs, curriculums, teaching, and research 	<ul style="list-style-type: none"> • Internal quality assurance structure • Quality assurance framework: <ul style="list-style-type: none"> – Self-assessment against a number of institutional goals – Key performance indicators agreed upon with MoHE across four areas: governance, teaching, research, service – Annual performance report submitted to the MoHE
+	<ul style="list-style-type: none"> • Highest freedom in decision-making 		<ul style="list-style-type: none"> • Significantly raises the level of autonomy in contrast to current state
–	<ul style="list-style-type: none"> • Most demanding levels of accountability, requiring policy and performance agreement, and quality assurance framework 		<ul style="list-style-type: none"> • Autonomy level achievable will be significantly smaller than that of other leading universities
	Criteria for selecting an option: <ul style="list-style-type: none"> • Easy of operational implementation • Level of social/political acceptance • Presence of capable leadership at university • Impact of change in HE landscape, in the Kingdom 		

Source: team analysis

Criteria to be considered when selecting one of the options include the ease of implementation, the level of social and political acceptance, the presence of capable leadership at university and the impact on the higher education landscape in the Kingdom.

What capabilities will KSU need to strengthen in order to succeed with additional freedoms?

As a result of the performance contract between King Saud University and the Government, King Saud University will take on more responsibility along with its autonomy. For example, HR processes can be more sophisticated and performance driven, implying the need for gathering performance data. Finance will need to do increased planning and allocation of funds, at a more granular level. Procurement rules can be re-written to optimize delivery time.

These potential changes imply new processes and systems. KSU will need to build internal capabilities in these departments.

Initiative 8.2: Build KSU's internal financial capabilities

As the Government moves towards granting King Saud University additional freedom to make the right trade-offs in its needs through block funding, and with increased private funding flowing to the institution, the finance and controller department of King Saud University will need to move from managing line budgets to strategically allocating funds across the various constituents of the University. Capabilities in strategic financial planning and managerial accounting will need to be developed. In addition, finance department will now work more closely with the strategic team to ensure the adequate funds are available and the right tradeoffs are made.

Initiative 8.3: Build internal HR process capabilities

King Saud University will have additional freedom in defining and managing faculty tracks, The University will need to ramp-up its human resource capabilities to support new salary schemes, bonus and benefits to all faculty irrespective of gender or nationality. The new capabilities could be owned by the faculty affairs deanship or will need to work very closely with that deanship in order to ensure that faculty processes and environment are constantly updated in a competitive world for talent.

Initiative 8.4: Build procurement capabilities

As the Government moves towards granting King Saud University additional freedom in procurement and approval of small and medium purchases, King Saud University will need to build capability for managing and reimbursing claims that were initially sent to the Ministry of Finance for approval. A rapid turnaround of requests will be required in order to ensure a rise in quality at King Saud University.

Summary

- **Why are public universities worldwide seeking more freedom from government to operate?**

Leading public universities worldwide are asking for additional freedom to operate in order to adapt quickly to an ever-changing educational landscape, manage the performance of their faculty and staff, and increase process flexibility in the organization. The National University of Singapore has achieved a semi-autonomous status, while maintaining its obligation towards Singapore's society through a performance agreement with the government.

- **Why does King Saud University need more freedom to operate?**

Various ministries are deeply involved at the operational and strategic decision making level with King Saud University and this leads to long processes. King Saud University should gradually adopt a performance and accountability framework with the government, similar to NUS.

- **What type and level of accountability does King Saud University need to assume in return for its increased autonomy?**

The levels of accountability will ensure that the Government continues to get what it requires from King Saud University without the tight controls it exerts today. This includes the quality of education and research as well as the number of students that King Saud University admits and/or graduates whose education it needs to support in the Kingdom. The level of accountability should clearly correspond to the degree of freedom granted.

- **What capabilities will KSU need to strengthen in order to succeed with additional freedoms?**

Key finance, HR, procurement and management processes will be owned by KSU as a result of the performance contract and building the internal capabilities in these core departments (HR, finance) will be crucial to ensure smooth

transition of processes from government to KSU

Strategic objective #9: Organizing for purpose

Several issues within the current organization and governance of KSU are leading to ineffective decision making and inefficient functioning of the University. As KSU embarks on its journey towards becoming a globally leading research-based University, the organization and governance of KSU will need to evolve to enable better decision making and support world-class research and teaching.

When thinking about how the University's organization ought to change, KSU must reflect upon the following questions:

- What are the issues arising from KSU's current organizational structure and how can they be resolved?
- What is the most appropriate governance model for KSU?
- How can the role of support staff be improved in order to better align it with KSU's goals?

What are the issues arising from KSU's current organizational structure and how can they be resolved?

KSU's main organizational challenges arise from the fragmentation of its departmental and school structure into numerous units as well as the abundance of management roles at the senior level.

Even after excluding non-Riyadh branches, KSU still exhibits a significantly large number of schools (21) and departments (130) when compared to leading benchmarked universities (average of 11 schools and 73 departments), with many departments potentially sub-scale.

In addition to their excessive number, KSU colleges and departments function more like independent silos than a single entity with a unified objective. This fragmentation has led to many issues including lack of alignment on strategies, limited interdisciplinary collaboration across colleges and departments,

substantial overlap in program offering, insufficient management bandwidth, and lack of efficiency in services.

Many large universities such as Oxford University, the University of Southern California and several Korean Universities are reducing their schools and departments by combining schools under larger umbrellas and breaking down walls between departments in order to realize benefits such as: increased interdisciplinary collaboration, greater focus on strategic areas, higher employability for graduates, and reduced administrative burden.

A simplification of KSU's organization is a necessary step towards a more effective structure that is able to support the major transformation on which it has embarked. This requires both broader discipline-based structures that have the critical mass for their leadership and processes to be effective and efficient and a simplified organization at the senior leadership level.

Initiative 9.1: Consolidate complementary colleges into single faculties

KSU could realize similar benefits to those of other universities and resolve many issues related to fragmentation of structures by combining colleges under larger faculties. When deciding on how to organize colleges under larger faculties, KSU should optimize its structure to align with the following four factors:

- Global trends in faculties/school organization;
- Supporting and advancing KSU's priority teaching and research areas
- Encouraging interdisciplinary collaboration amongst relevant disciplines;
- Maximizing efficiency and ensuring practicality in using the University's resources.

However, as this is a most sensitive issue for KSU, the answer that will be suitable to KSU's needs will be dependent on how feasibility it is for KSU's internal functioning. Bearing that in mind, an example proposal that optimizes the four factors is given by a structure that would involve six faculties, as fol-

lows:

- Faculty of Arts & Humanities: Arts, Languages & Translation, Arabic Language Institute, Tourism and Archaeology;
- Faculty of Education: Education, Teachers' College, Physical Education and Sports;
- Faculty of Business and Law: Business Administration, Law and Political Science;
- Faculty of Engineering and ICT: Engineering, Architecture and Planning, Computer and Information Science;
- Faculty of Science: Biological sciences, Physical sciences;
- Faculty of Health Sciences: Medicine, Dentistry, Pharmacy, Applied Medical Science, Nursing.

KSU should combine colleges under larger faculties that are of similar size

- 1 **Themes emerging from benchmark institutions**
 - Combination of humanities, arts with either social sciences and/or sciences
 - Standalone business program
 - ICT, architecture schools under engineering
 - Combination of multiple health disciplines under medicine
 - Explicit focus on education through establishment of education faculties
- 2 **Priority focus areas for the KSA and KSU**
 - Centred around priority teaching (e.g. ICT, financial, management, education, healthcare) and research (e.g. healthcare, education)
- 3 **Maximum Interdisciplinary collaboration**
 - Business and Law
 - Engineering and ICT
 - Education and teaching
 - Medical Sciences
- 4 **Maximize efficiencies**
 - Efficient use of university resources (human, physical and capital)

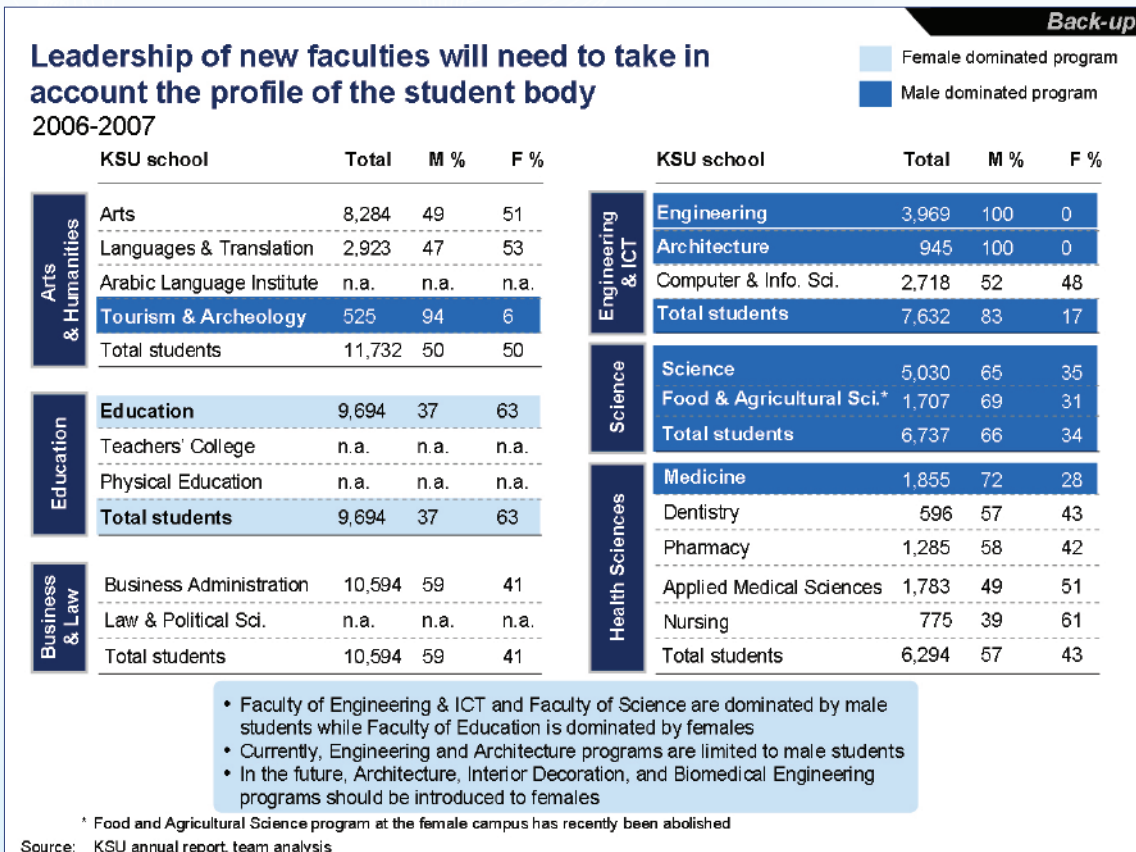
Humanities schools	Technical/science schools
Faculty of Arts & Humanities <ul style="list-style-type: none"> • Arts (7) • Languages & Translation (3) • Arabic Language Institute • Tourism and Archaeology (3) <p style="text-align: right;">12,000</p>	Faculty of Engineering & ICT <ul style="list-style-type: none"> • Engineering (6) • Architecture & Planning (2) • Computer and Information Science (4) <p style="text-align: right;">8,000</p>
Faculty of Education <ul style="list-style-type: none"> • Education (9) • Teachers' college (15) • Physical Education and Sports (7) <p style="text-align: right;">10,000</p>	Faculty of Science* <ul style="list-style-type: none"> • Biological Sciences (6) • Physical Sciences (4) <p style="text-align: right;">7,000</p>
Faculty of Business & Law <ul style="list-style-type: none"> • Business Administration (9) • Law and Political Science (6) <p style="text-align: right;">11,000</p>	Health schools
	Faculty of Health Sciences <ul style="list-style-type: none"> • Medicine (16) • Dentistry (4) • Pharmacy (5) • Applied Medical Science (7) • Nursing (4) <p style="text-align: right;">6,000</p>

x No. of students 2006/2007
(X) No. of departments

*Food and Agriculture Sciences is currently being absorbed in the College of Science, so recommendation is to split the Faculty of Science into two Colleges: Biological Sciences and Physical Sciences. Biological Sciences includes: Botany, Zoology, Microbiology, Biochemistry, Agriculture, and Food Sciences. Physical sciences includes Math, Chemistry, Statistics, and Physics.
Source: Team analysis

Once colleges and departments have been combined under faculties, sub-scale departments with limited strategic significance should either be merged with larger departments or eventually closed down in conjunction with the reduction of admitted students (as described in strategic objective #2).

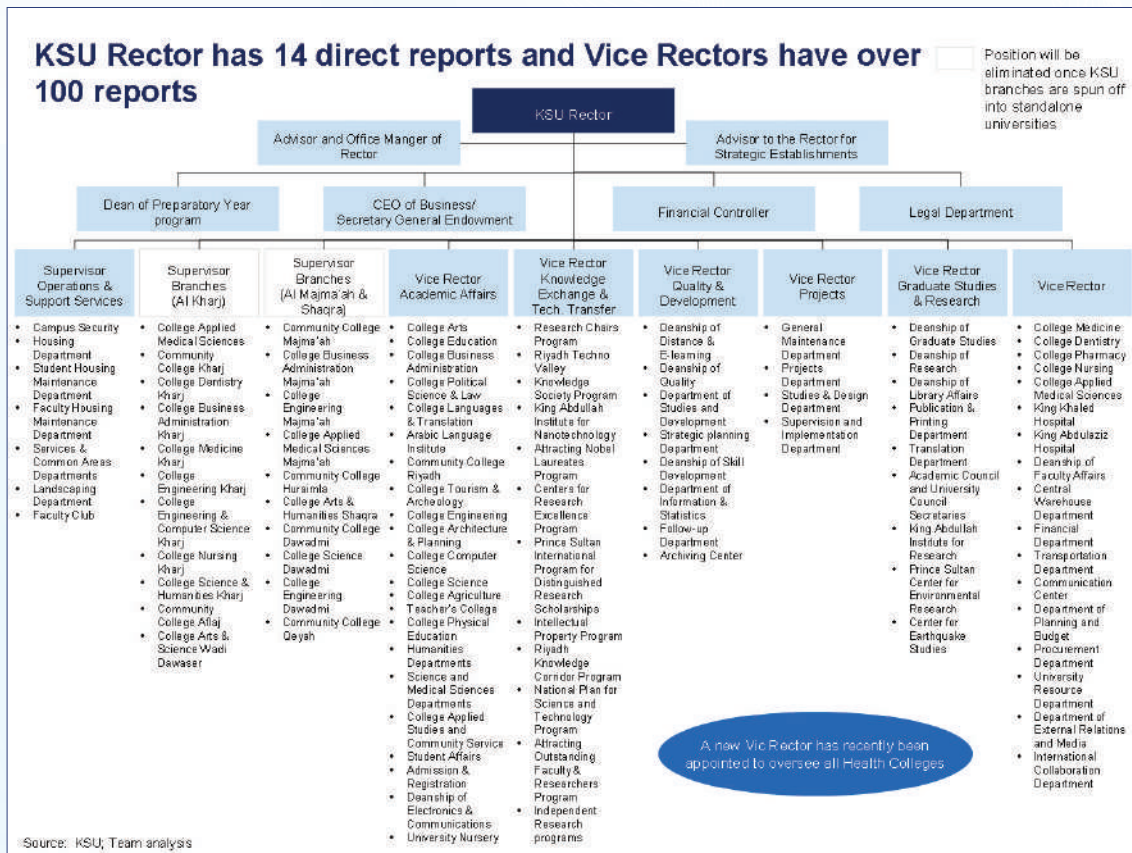
The creation of faculties will require adjustment in the institution's structure, as described in the next section. As a guiding principle, the leadership of each faculty should be reflective of the composition and the profile of the student body. As certain colleges and groups of schools are male in majority (e.g. Engineering) while others are female in majority (e.g. Education). This diversity in student mix should be reflected in the composition of the faculty board and chair.



Over the past two years, KSU's organizational structure has been undergoing many changes, resulting in an increased number of direct reports to KSU vice rectors (see exhibit above), duplication in functions, and lack of clarity, accountability, and transparency. This, in turn, has led to much confusion and bureaucracy in the day-to-day functioning of KSU

Initiative 9.2: Reduce number of Vice-rectors and Deans

KSU's senior management structure should be reconsidered to ensure greater focus, more clarity around roles and responsibilities, and increased accountability. In addition, senior leadership positions should be dedicated to overseeing core functions (e.g., Academic Affairs, Administrative Affairs, Legal Affairs, etc) and driving strategic priorities (e.g., promoting research excellence and graduate studies).



In designing an optimal organizational structure for KSU, five factors should be considered:

- Small number of professional administrators at the senior levels: 7-10 direct reports to the rector and few administrators at the N-2 level;
- Clear decision rights and accountability;
- Clear roles and responsibilities;
- Dedicated leadership to drive strategic priorities (e.g., Vice Rectors for Research and Vice Rector for Female Equity);
- Senior leadership positions for core functions (e.g., Vice Rector for endowment, academic affairs...).

In deciding which functions should report directly to the Rector, KSU should take into consideration two factors:

- What core leadership functions should be: Certain senior leadership functions are common across most universities. These functions are of high importance and, thus, report directly to the Rector, such as academic affairs, administrative affairs, external and public affairs, legal affairs, resource development, and endowment management. Other functions are specific to certain universities and typically do not report to the Rector such as human resources, infrastructure, land and building, and finance. KSU should ensure that a Vice Rector is appointed to drive each core leadership function.
- How to best drive strategic priorities: KSU leadership's aspiration to transform KSU into a globally leading research university over a short period of time translates into a set priorities. The senior leadership structure should reflect these priorities to ensure that they are fulfilled.
- Dean of Graduate Studies to recruit graduate students and to promote graduate studies at KSU
- Vice-Rector for Graduate Studies & Research to drive research priorities and promote research excellence
- Vice Rector for Female Faculty Equity to ensure equity across gender and

promote females

- Associate Vice Rector for Expat Faculty Equity to recruit and develop expat faculty and ensure that they receive equal rights
- Vice-Rector for Strategy and Development to support the Rector in driving strategic priorities and ensure they are achieved
- Quality manager reporting to the Vice-Rector of Strategy and Development to ensure that support services are effectively supporting strategic goals

The role of the Vice Rector for Female Faculty Equity is particularly important, as it will help strengthen the relationship between the female and male sections and ensure equity along 3 areas

- Enhance communications and collaboration between male and female campuses to improve the quality of education and research
- Empower females with decision making rights and authorities in order to enable effective governance of female campuses
- Ensure equity in resources and all other aspects across female and male campuses

The accreditation report particularly stresses these 3 dimensions in assessing collaboration between male and female campuses and the impact on quality at KSU as seen in the exhibit below.

Vice Rector for Female Faculty Equity will help strengthen the relationship between female and male sections and ensure equity

Rationale for creating "VR Female Faculty Equity" role

- 1 Enhance communication and collaboration between male and female campuses to improve the quality of education and research
- 2 Empower females with decision making rights and authorities in order to enable effective governance of female campus
- 3 Ensure equity in resources and all other aspects across female and male campuses

Supporting quotes from the Accreditation Report

"The female sections should be thoroughly involved in all aspects of curriculum review, including all decision points"

"The university should consider responding to a clear need for more effective communicating and consultation with the women's sections"

"If this university is to realize its goals, the women's campuses must contribute optimally to the education of graduates, and to research, with women having an equal and equally valued voice in the departments and colleges"

"The authority of the Deans and also the Vice/Deputy Heads of Colleges and Departments is limited."

"The University should accord titles for the deans of the Oleisha and Malaz campuses that reflect their roles as campus directors with full authority for their campuses, and functioning at the rank of Vice-Rectors"

The university should involve the female sections more fully in decision making and in planning, managing and monitoring financial processes"

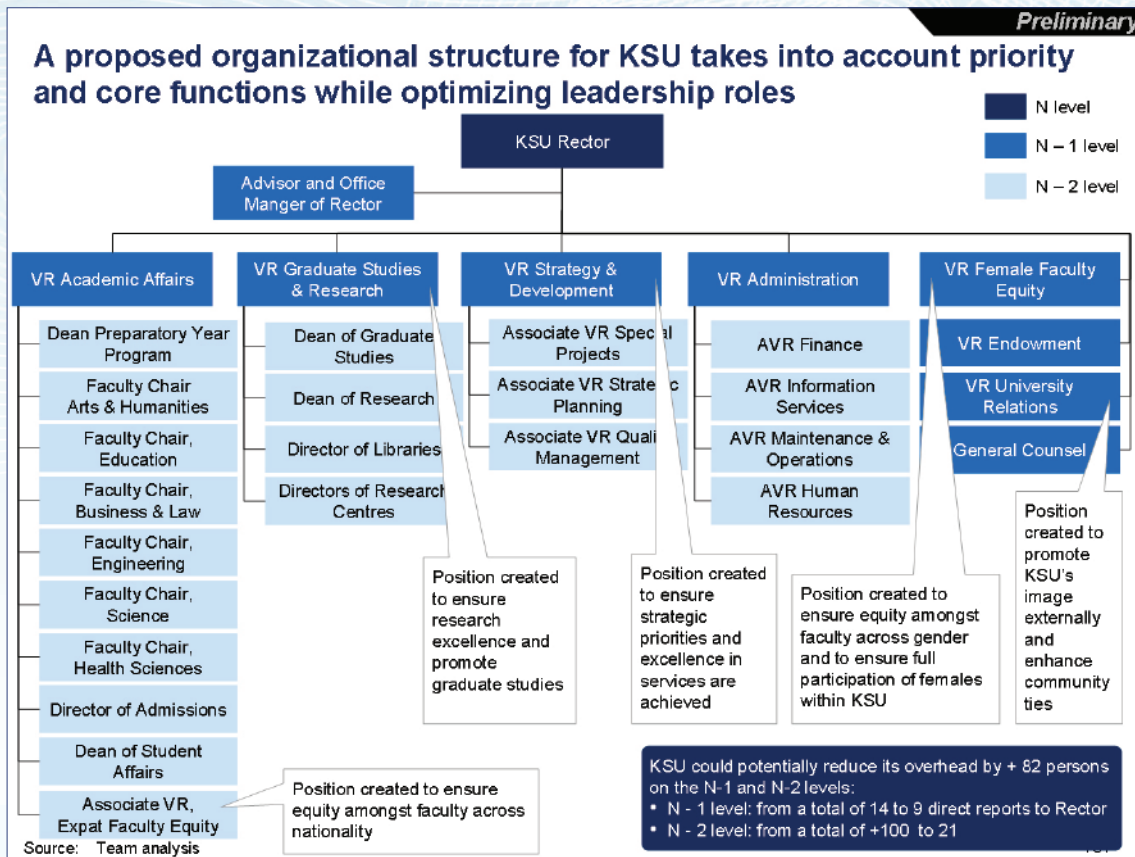
"We accordingly recommend that all the University committees establish fair and transparent procedures for the election and/or appointment of members giving due regard to gender and area representation"

"The self-study report acknowledges that resources, facilities and services provided are not equitable between the male and female campuses. The Women's campuses, Oleisha and Malaz are less well resourced"

Source: Team analysis, National Commission for Academic Accreditation & Assessment

The accreditation report also stresses the importance of reducing the proliferation of support deanships. These support deanships drive significant complexity within the institution as accountability and responsibility lines are blurred.

Taking this into consideration, a streamlined organization would have 7 strategic direct reports and 20 reports at the N-2 level. The proposed new organization would have the structure that can be seen in the exhibit below.



What is the most appropriate governance model for KSU?

Historically, the Female University Studies Centre, established in 1976, was governed by the KSU male campus. Overtime, KSU governance has evolved to increase female participation, starting with the appointment of the first female Dean to oversee the administration of the Female Centre in 1985, followed by the appointment of the first female Supervisor of the Malaz campus in 2001, and most recently the appointment of female vice college deans and deputy department heads.

However, the resulting matrix-like governance structure, whereby administrative and academic reporting lines are separated, has led to the ineffective management of the women's campus and is jeopardizing the quality of teaching

and research across the University.

The main issues that have been identified are:

- Confusion of decision rights between academic on college dean and administrative decisions on female campus dean, as these decisions can often not be distinguished. The result is that, for any given decision, there is no clear ultimate decision-maker.
- An insufficient number of decision-rights for women on academic and administrative matters. They are currently often not even consulted on budgets, admissions and women's campus matters.
- Women are ill-represented in University councils (e.g., Department Council, Academic Research Council and University Council).

The National Commission for Academic Accreditation and Assessment (NCAAA), under the section on relationship between the male and female sections states the following:

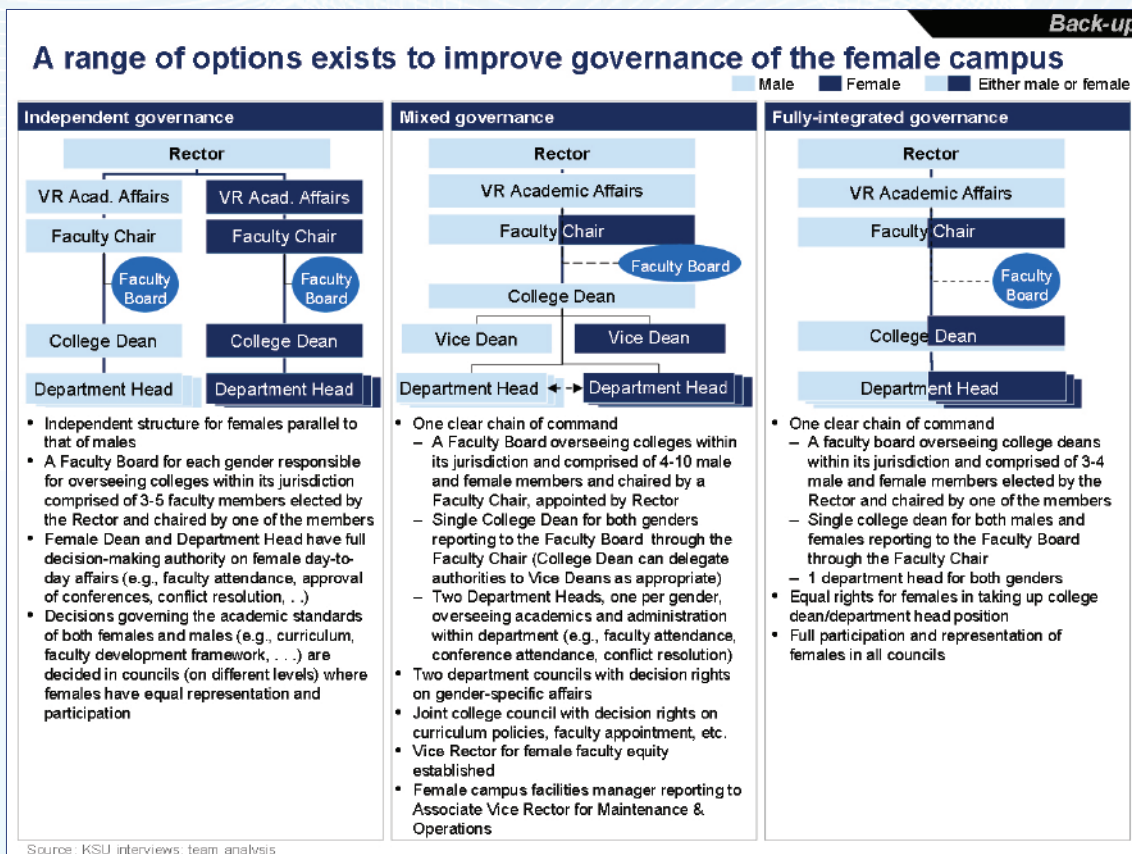
- When programs are offered in both male and female sections resources, facilities and staffing provisions are offered at comparable levels.
- Program coordinators in both sections and faculty teaching the same courses are fully involved in planning and reporting processes and communicate regularly about the program through processes that are consistent with by-laws and regulations of the Higher Council of Education. Given the problems detected with KSU's current governance issues, a reform is inescapable.

In light of the current challenges and the assessment criteria set by the NCAAA, KSU needs to introduce a new governance model to solve male vs. female inefficiencies.

Initiative 9.3: Introduce new governance model to solve male vs. female governance inefficiencies

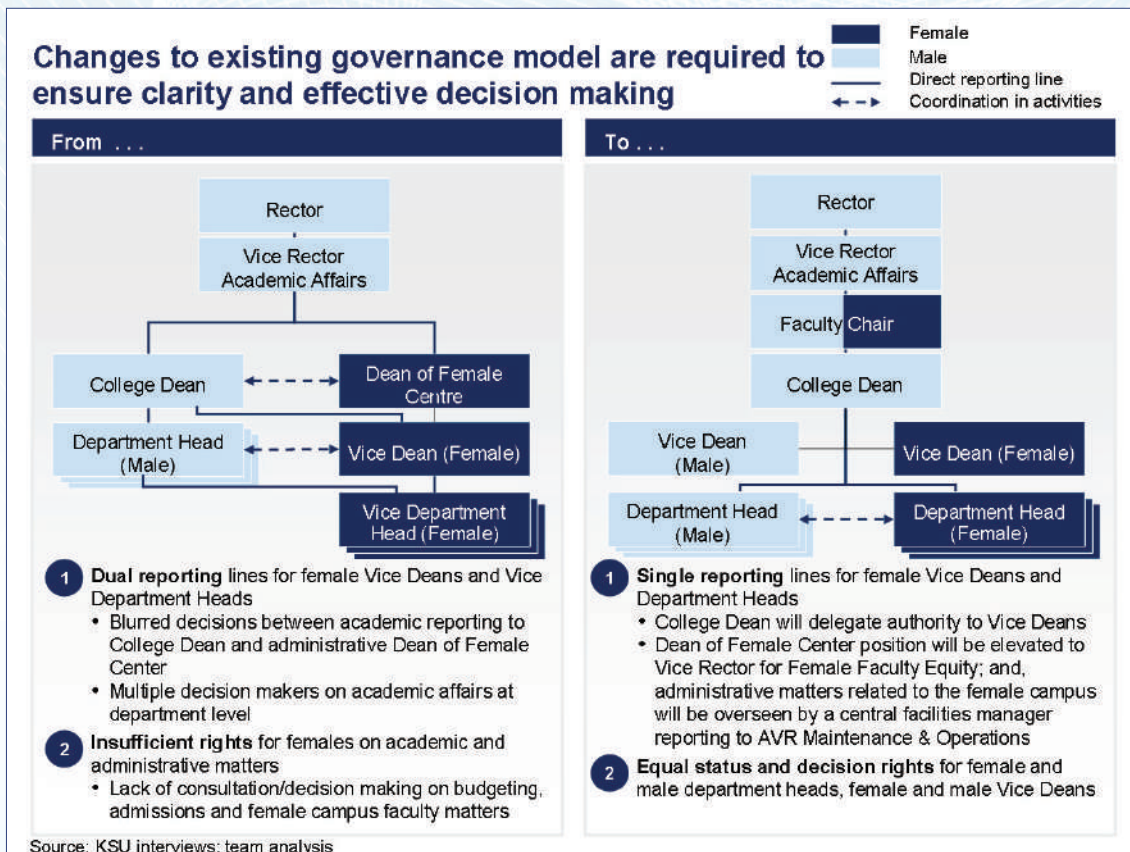
Several options exist to improve the governance of the women's campus in a way that ensures there are clear reporting lines and women have a fair say in

University decisions, particularly in the ones that directly affect them. They range from the independent governance model, whereby women have an independent structure parallel to that of men, starting with the department head and all the way up to the Rector, to the fully integrated governance model, whereby both men and women have one chain of command with a single department head, college dean, faculty chair, and Vice Rector of Academic Affairs. These are outlined in the exhibit below.



The criteria for selection of one of the previous options in this highly political issue include the ease of operational implementation in practice (as the options involve various degrees of collaboration between genders) and the internal and KSA-level political feasibility and the level of impact on KSU's teaching and research excellence. Nevertheless, the mixed governance model present

key advantages along the simplicity of its implementation and the gradual nature of the improvements it brings to the university and represents a smooth transition from the current situation.



The recommended mixed governance model, as seen above has the following characteristics and benefits

- A single reporting line for female Vice-Deans and Department Heads to the College Dean
- College Deans can delegate authority to Vice Deans
- The current role of Dean of Female Center position will be abolished and administrative matters related to the female campus will be overseen by a

central facilities manager reporting to the Associate Vice Rector for Maintenance and Operations

- Equal status and decision rights for female and male department heads, female and male Vice-Deans

Initiative 9.4: Simplify KSU's council structure, membership and governance

KSU's new organization structure should be supported by a more dynamic council structure. Currently, KSU has a council structure that is not conducive to effective decision making. The University council has over 60+ members meeting weekly and discussing university matters. The voices of all schools are often drowned and depend on the strength each dean. Additionally, competing agendas can often render large council decision-making obsolete and difficult. Simplifying this structure to ensure the right decisions are made at the right levels will require government support. Finally, the voice of the female campus is often unheard as, at KSU, female leadership are only presented in college councils per invitation and are not always encouraged to attend, and voice their opinions.

The structure, governance and membership of the new council structure are as follows:

- **University council:** Limited to the Rector, Vice Rectors and faculty chairs. Devoted to University wide issues and overall strategic and operational matters that impact the university as a whole
- **Faculty board:** Comprised 4-10 male and female members including all male College Deans and female Vice-Deans; At least one of the Faculty chairs should be a female

3 Proposed membership of key decision making councils ^(X) No. of members		
	Current membership	Proposed membership
University Council	<ul style="list-style-type: none"> 63 members including: <ul style="list-style-type: none"> Rector (1) Vice Rectors (6) College Deans (37) Support functions Deans (X) Supervisors of branch campuses (3) 	<ul style="list-style-type: none"> 14 members including: <ul style="list-style-type: none"> Rector (1) Vice Rectors (7) Faculty Chairs (6)
Faculty Board	<ul style="list-style-type: none"> N.A. 	<ul style="list-style-type: none"> 4-10 members per board including all male College Deans and female Vice Deans: <ul style="list-style-type: none"> Faculty of Arts & Humanities (8) Faculty of Education (6) Faculty of Business & Law (4) Faculty of Engineering & ICT (4) Faculty of Science (4) Faculty of Health Sciences (10) Each Faculty Board has a Faculty Chair, appointed by Rector (two year term) At least one out of six Faculty Chairs, in faculty where female students are the majority, must be female (e.g., Faculty of Education)
College Council	<ul style="list-style-type: none"> Members include: <ul style="list-style-type: none"> College Dean Vice Deans (both male and female) Male Department Heads Female Vice Department Heads are listeners on an invitation basis and carry no decision making weight 	<ul style="list-style-type: none"> Members include: <ul style="list-style-type: none"> College Dean Vice Deans (both male and female) Department Heads (both male and female) Female members to have equal weight and decision making rights as male members
Department Council	<ul style="list-style-type: none"> Members: <ul style="list-style-type: none"> Male Department Head Male faculty Female Vice Department Heads and faculty are listeners on an invitation basis and carry no decision making weight 	<ul style="list-style-type: none"> Female Department Council to include all female faculty in department Male Department Council to include all male faculty in department Department Head for each council is elected by faculty members within department

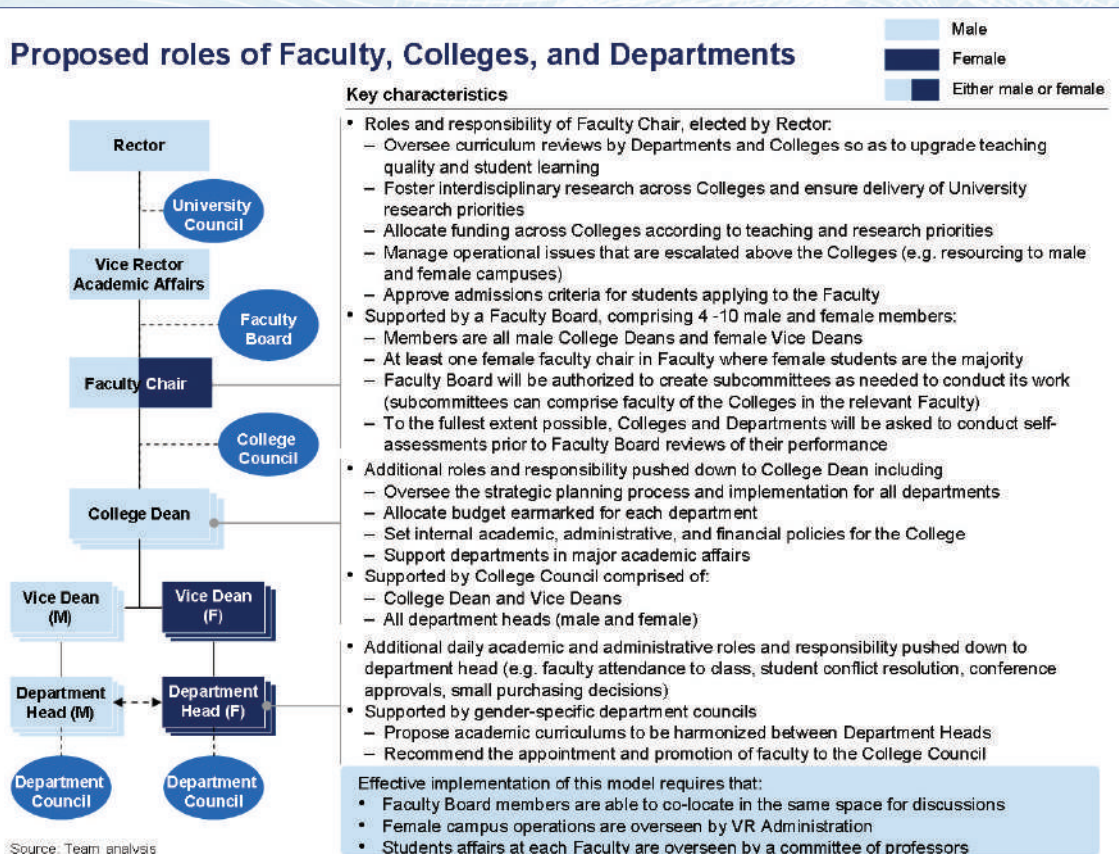
The role of the existing KSU-wide "Curriculum Committee" (i.e., overseeing curriculum reviews and upgrading the quality of teaching and learning) will now be absorbed by the Faculty Boards. Consequently, "Curriculum Committee" can be abolished once the Faculty Boards are in place

Source: KSU interviews, team analysis

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- **College council:** Comprised Dean and Vice Deans as well as all male and female department head
- **Gender specific department councils:** Comprised of all faculty and department head on each male/female campuses

For this model to be successful, a set of decision rights will need to be pushed down to the College Deans as well as the Faculty boards. A detailed assessment of decision rights is in the appendix; the exhibit below summarizes the main elements of KSU's structure and decision rights, taking in account the new relationship between the male and female campuses.



How can the role of support staff be improved in order to align it with KSU's goals?

Currently, KSU has 12,000 staff whose role is to support KSU's functions. They include administrative staff, technicians, cleaners, security guards and numerous others who enable KSU to function as an organization and, thus, to fulfill its mission.

However, KSU's support staffs are not achieving this goal in full and, moreover, feel demotivated that their work is not valued:

Faculty and students alike complain about the work of support staff, including tardiness in response, lack of skills or training for specific jobs and of commitment. Moreover, they feel helpless in dealing with these issues as feedback

and management mechanisms are limited.

45% of faculty declares itself dissatisfied. 70% of them state that KSU is not doing well in promoting the best staff and over 50% do not feel motivated or that their work is recognized or rewarded.

Support staffs play an indispensable role in any organization and for KSU to achieve its transformational objectives, a high quality, and fully engaged team is necessary.

Initiative 9.5: Raise the quality of administrative support staff

The quality of the staff directly impacts the performance of KSU. As such, as in any organization, they must be treated fairly and there must be a clear career path for them. Four principles should govern the way faculty is treated at KSU:

- Improve the hiring process for staff: A decentralized hiring process that allows flexible matching of requirements to people should be in place, with faculty ultimately deciding what support staff they want in their teams. Leverage contract based staffing so that non-performing staff can have their contract discontinued.
- Implement a world-standard professional development for all staff: KSU should put in place individual development plans for all staff and a comprehensive feedback framework. Preferential access should be given to job openings across the University. Staff should be given support in learning through the offering of internal courses and the financing of relevant external courses.
- Develop a rigorous performance management system: Implement higher merit based salary increases to excellent staff performers and discontinue the contracts of non-performing staff. Reward outstanding performance through staff recognition programs.
- Ensure an environment of equal opportunities is in place: Ensure staffs are treated fairly and equally regardless of their nationality, race and gender through the implementation of adequate policy and the creation of an ombudsperson for staff.

Summary

- What are the issues arising from KSU's current organizational structure and how can they be resolved?

The high degree of fragmentation of KSU's structure results in a lack of alignment on strategies, limited interdisciplinary collaboration and substantial overlap in program offering. The abundance of senior managers eventually results in much confusion and bureaucracy in the day-to-day functioning of KSU. KSU will have to create faculties that combine several colleges in order to have management units of sufficient mass.

In addition, the senior leadership team must be streamlined to ensure greater focus, clarity and accountability in management. Fewer senior managers should be in place, clear roles should be given to them and there should be dedicated leadership to drive strategic priorities (e.g., a Vice-Rector of Research).

- What is the most appropriate governance model for KSU?

The most appropriate model is one that ensures clarity in the reporting lines of the women's campus and gives women a fair say in the university governance, unlike the current situation. To achieve this, there are several options, ranging from independent governance for their campus to a fully integrated one, each designed so that they can fulfil these goals. The option most appropriate for KSU will depend mainly on the ease of its implementation and internal and external political sensitivity.

- How can the role of support staff be improved in order to better align it with KSU's goals?

The support staff is hindering the agility and effectiveness of KSU. Finally, the matrix-like governance structure that governs the women's campus has led to its ineffective management. The processes affecting support staff, from hiring to professional development to performance management, should be completely overhauled so that they: recruit high quality talent suitable for the specific role they are to fulfil, nurture staff's capabilities through adequate professional management and hold them accountable to their performance level.



Implementation plan »



5. Implementation plan

The implementation provides a framework that supports KSU's strategic plan, ensures all major initiatives are undertaken, sequenced and monitored adequately in order to enhance the best of KSU's campus while making the most of opportunities that come with new plan. The plan helps each project realize KSU's academic, research and community objectives, while giving the leader the flexibility and the responsibility to adapt the plan over the next 20 years.

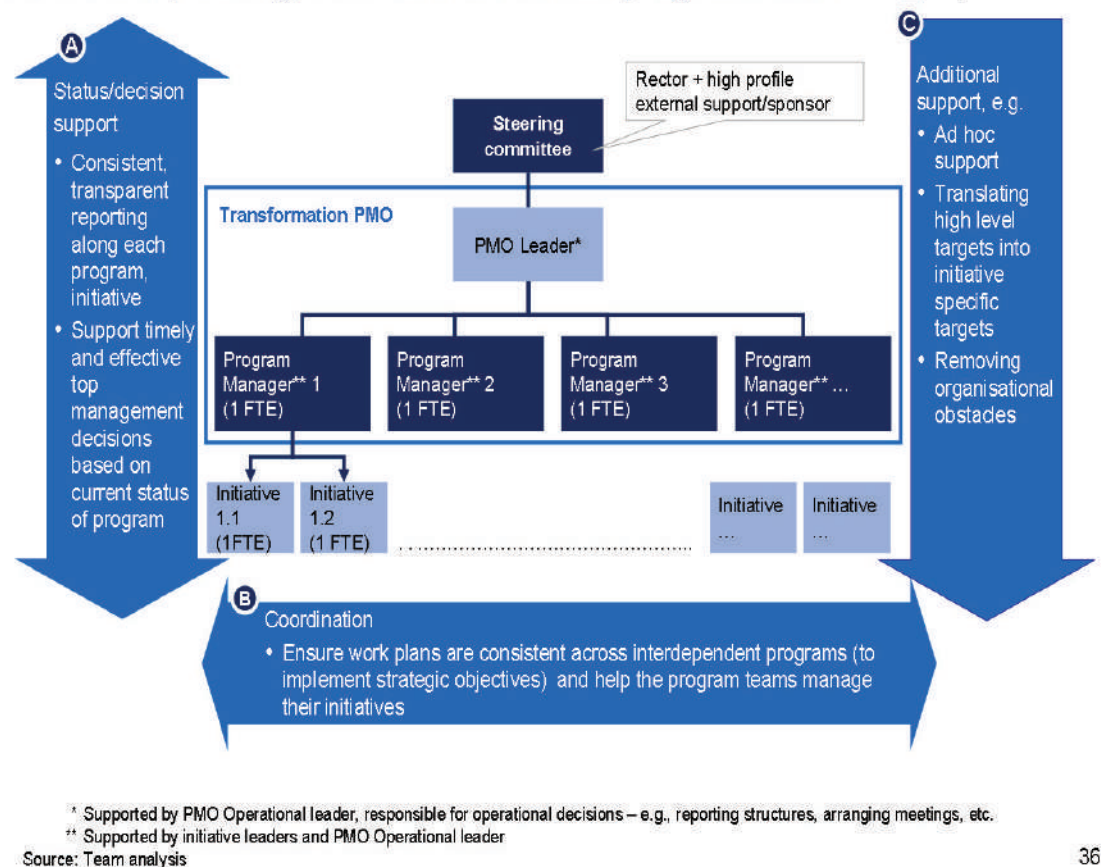
To be effective, the implementation program must contain 4 key elements:

- **A transformation management program:** Dedicate a group of highly respected individuals to own the transformation program
- **A progress management:** Monitor in the detail the pace of the transformation to ensure timely progress
- **A risk management program:** Anticipate risks and manage them to ensure program success, which includes a communication plan that will, at the onset, help manage expectations and build a coalition
- **A stakeholder management program:** Communicate clearly with each group of stakeholders to ensure commitment and understanding

Transformation management program

The primary element of a transformation management program is the PMO (Program Management Office). The key task of a Program Management Office (PMO) is to ensure transparent and effective interaction between top management and all relevant program levels. To fulfill this task, the PMO should compile a number of clearly structured, consistent and transparent reports on a regular basis, including status and milestone overviews, risk/issue reports, budget report, and a progress report.

A Transformation PMO ensures transparent and effective interaction between top management and all relevant program levels



The PMO can also perform additional functions such as initiative- level target setting and providing ad hoc support. The positioning and staffing of a PMO depend on the functions that it will perform. Certain best practices can help to make the difference between a mechanical accounting exercise and a successful PMO effectively supporting the program leadership and top management. The attached document in appendix (Document I) explains, in details, these practices and the setup of KSU’s implementation transformation program.

Progress management program

A program management by itself cannot succeed, it needs to be supported by a system of key metrics to follow and monitor the progress of the implementation. The list of KPI should be tiered, concise and helping the leadership track the pace of implementation as well as outcomes. There characteristics of the KPI system should be as follows:

- The KPI* system allows to monitor progress and to assign ownership of activities impacting key measures of performance
- A series of reports will be used by the PMO to monitor and manage progress
- Reports are crafted by different leaders in the PMO and structure to address key aspects of the program and present the in the right level of detail to ensure efficient monitoring of progress
- Reports are used not only to show progress, but also to surface issues, risks, and budgetary concerns to the right members of the PMO for its resolution or escalation

Risk management program

In order to ensure the effective management and completion of each major tasks, the project manager and the leadership must actively anticipate and mitigate risks. At the onset of the program, the implementation plan contains a set of potential risks as well as mitigation plan for each one of them. Nevertheless, it is necessary for risk management to a constant part of the agenda of the PMO.

- Risk management is an active process that requires allocating time for it at each PMO meeting
- The list of risk is dynamic and should be managed by the PMO; new risks can appear and old risks can vanish on a weekly basis
- Without active risk management, risks are not anticipated but discovered

when it is too late.

Stakeholder management program

Finally, stakeholder management is a core element of the risk mitigation, but also to ensure the right pace of implementation and adequate support of the university. Stakeholder management is essential for project success. A good communication plan needs to engage members of the organization and external influencers to cooperate and commit to the plan, is tailored and is reflected not only in all verbal, and written intervention but also in all behaviors.

Financials

Overall, the various programs of the strategic plan will require sustained investment over the next 20 years. The following exhibit summarizes the costs related to the programs.

Strategic plan financial summary			APPROXIMATE ROUNDED FIGURES
Million SAR			
Program (strategic objective)	One-time costs	Recurrent costs	
<ul style="list-style-type: none"> • Focus – Focus areas (1) 	0.3	1400	
<ul style="list-style-type: none"> • Faculty – Distinctive faculty (2) 	2.1	1170*	
<ul style="list-style-type: none"> • Students – Less is more (3) – Stronger graduates (4) 	3.2	270	
<ul style="list-style-type: none"> • Relations – Building bridges (5) – Sustainable future (7) 	-	34	
<ul style="list-style-type: none"> • Environment & Organization – Supportive learning environment (6) – Organizing for purpose (9) 	322	1	
<ul style="list-style-type: none"> • Performance contract – Flexibility, accountability (8) 	40	4	
Total	370	2800	

KSU needs an endowment between **25 and 50 billion SAR**** to sustain these level of recurrent costs (depending on the rate of returns)

* Recurrent costs include a 40 million SAR cost that applies to the first 5 years of the program only
 ** Assumes a rate of return between 6 and 12%
 Source: Team analysis



Conclusion »



6. Conclusion

King Saud University, the Kingdom's largest and oldest higher education institution, enters the next decade facing a rapidly evolving national and international landscape. In this report, we have sought to provide the context in which the university will navigate over the next 20 years.

We have presented, as part of a thorough diagnostic guided both by analysis, interviews, benchmarking and SWOT workshops with stakeholders to establish the key drivers for change and the need to develop King Saud University as a beacon of excellence for the Kingdom.

We have drawn from both international and internal best practices to present strong initiatives that will help the university meet the needs of the Kingdom as well as the challenges it will face in the near and long terms.

This report makes assertions over 9 strategic objectives supported by 45 initiatives:

Strategic objective	Initiatives
Good everywhere; great in focus areas	1.1 Develop area of excellence: Healthcare 1.2 Develop area of excellence: Education 1.3 Develop area of excellence: Finance & insurance 1.4 Develop area of excellence: Management 1.5 Develop area of excellence: Engineering/ICT 1.6 Develop area of excellence: Engineering/ Petrochemicals 1.7 Develop area of excellence: Engineering/Water resources development and management 1.8 Develop area of excellence: Urban Planning 1.9 Develop future technologies

Distinctive faculty	<ul style="list-style-type: none"> 2.1 Strengthen faculty recruitment process to match international standards 2.2 Attract visiting professors in each department 2.3 Increase benefits and improve support for existing faculty members 2.4 Design and deploy new performance based faculty tracks
Less is more	<ul style="list-style-type: none"> 3.1 Transform the existing branch campuses into standalone universities 3.2 Reduce the size of the student body at the Riyadh campuses 3.3 Form advisory committee to analyze higher education capacity and advise government 3.4 Build internal capacity at the Muzahmiya campus 3.5 Expand current graduate offering in each program 3.6 Increase international student intake for graduate students
Stronger graduates	<ul style="list-style-type: none"> 4.1 Differentiate and strengthen preparatory year between 3 broad academic areas to increase its impact 4.2 Embed innovative teaching methods throughout KSU programs (e.g., case studies, problem based and cooperative-collaborative learning, student presentations, classroom technology) 4.3 Launch Teacher's academy to support and develop faculty skills 4.4 Raise English skills requirements for graduation 4.5 Develop an Honors Program
Building bridges	<ul style="list-style-type: none"> 5.1 Create an institutional advisory board 5.2 Create advisory board for each faculty 5.3 Create external relations office and strategy 5.4 Create community relations program and strategy 5.5 Provide competitive grants to foster interdisciplinary research and programs

Supportive learning environment	<ul style="list-style-type: none"> 6.1 Launch campus infrastructure review and upgrade 6.2 Detail student, faculty and staff code of conduct 6.3 Develop extracurricular activities portfolio 6.4 Create a student governing body 6.5 Launch annual environment and infrastructure survey
Sustainable future	<ul style="list-style-type: none"> 7.1 Diversify sources of funding by cultivating target donor relationships 7.2 Create annual report task force to transparently publicize endowment successes and usage 7.3 Start donor recognition program 7.4 Build an organization to support all fundraising activities within KSU
Flexibility and accountability	<ul style="list-style-type: none"> 8.1 Develop a performance agreement with the government 8.2 Build KSU's internal financial capabilities 8.3 Build internal HR process capabilities 8.4 Build procurement capabilities
Organizing for purpose	<ul style="list-style-type: none"> 9.1 Consolidate complementary colleges into single faculties 9.2 Reduce number of Vice-rectors and Deans 9.3 Introduce new governance model to solve male vs. female governance inefficiencies 9.4 Simplify KSU's council structure, membership and governance 9.5 Raise the quality of administrative support staff

The strategic plan for King Saud University is an ambitious plan, and provides an alternative approach for major changes in the way the Kingdom prepares and plans its higher education landscape. How well the university and the policy community meet this ambition will determine how well we are able to prepare our youth to become the next generation of leaders, investigators for competitive and global futures.

Strategic Plan of King Saud University 2030

No.	Name	Position	College
1	Dr. Hamad M.H. Al- Sheikh	General Supervisor of Strategic Plan	College of Business Administration
2	Dr. Hatim A. Abo Al-Samh.	General Supervisor Of Strategic Plan	College of Computer Sciences & Information
3	Prof. Salem Saeed Al- Qahtani	Chairman of Strategic Plan	College of Business Administration
4	Prof. Abdulrahman Abouammoh	Team member	College of Science
5	Prof. Saad M. Al-Shehri	Team member	Riyadh Community College
6	Prof. Moadi Mohammed Mod-Heb	Team member	College of Business Administration
7	Prof. Abdulrahman bin Ahmed Saig	Team member	College of Education
8	Prof. Ibrahim Ali Al- Orainy	Team member	College of Medicine
9	Prof. Khalid A. Al- Wazan	Team member	College of Dentistry
10	Dr. Mohammed M. El- Madany	Team member	College of Engineering
11	Dr. Awad Ali. Al-Karni	Team member	College of Engineering
12	Dr. Rashid Mohammad Al- Hamali	Team member	College of Business Administration
13	Dr. Abdulmalik S. Al-Salman	Team member	College of Computer Sciences & Information
14	Dr. Ibrahim Ali Al-Dubayan	General Secretary of Strategic Planning team	College of teaching
15	Dr. Khalid Al- Abdulrahman	Team member	College of Medicine
16	Dr. Yousef A. Al- Salloum	Team member	College of Engineering
17	Dr. Eqbal Z. Darandari	Team member	College of Education
18	Dr. Hanan AbdulAziz Al- Olayan	Team member	College of Science
19	Dr. Saada Mohammad Abdullah Al- Orf	Team member	College of Science
Supporting Team			
1	Khalid Ali Al- Ahmari	Executive Secretary	Strategic Planning Team
2	Bassam Ali Al- Kuzaim	Executive Secretary	Strategic Planning Team
3	Yasser M Al- Arefi	Executive Secretary	Strategic Planning Team
4	Ahmed Ali M. Omairah	Executive Secretary	Strategic Planning Team

