Universities’ commitment to excellence in knowledge transfer and social entrepreneurship- KAU case study?

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King Abdulaziz University (History)

- King Abdulaziz University (KAU) established in 1967
- National university western area of Saudi Arabia, Jeddah
- In 1973, KAU joined the Saudi public universities system
King Abdulaziz University (Description)

- KAU counts with tens of buildings spreading over an area of 520,000 square meters on KAU’s main campus,

- With 4 branches

- Consists of 32 Colleges,

- 4 Excellence Research Centers,

- 5 Institutes,

- 7 Scientific Research
King Abdulaziz University (Description)

- KAU counts with almost 160,000 undergraduate/graduate male and female students
  - Almost 43,000 regular,
  - Almost 110,000 corresponding and
  - Almost 7,000 distance learning students

- Almost 10,000 post-graduate students,
- Including PhD, MS and Diploma students.
King Abdulaziz University (Achievements)

- KAU has achieved the Institutional Accreditation (NCAAA), from KSA
- KAU has achieved more than **85 international accreditations** to its programs and services from leading global bodies, like:
  - The American Board of Engineering Technology (ABET),
  - The Global Congress on Dental Education (DentED),
  - The American Council of Occupational Education (COE),
  - The Canadian Council on Hospital
King Abdulaziz University (Achievements)

- KAU ranked as one of the top universities among all Saudi and Arab institutions of higher Education:

- ARWU, KAU is ranked between 101-150 Top universities

- Times Higher Education (THE), KAU position is in the Top 201-250:
  - THE Middle East Region Ranking: 1st
  - THE Asia Rank: 27th
  - THE 150 under 50: 23th

- QS Ranking, KAU occupies the position: 283<sup>rd</sup>
  - QS Asia Ranking: 23rd
  - QS Middle East Region Ranking: 3<sup>rd</sup>

- US News Ranking, occupies the position: 183<sup>rd</sup>
  - US News Asia Ranking: 182<sup>nd</sup>
  - US News Arab Region Ranking: 21<sup>st</sup>
The Entrepreneurial University Concept

- Associated only with business
- Strengthened substantially by government
- Tied in with innovation
- Commercialization of university intellectual property
THE ENTREPRENEURIAL UNIVERSITY CONCEPT

Quality education enables people to develop all of their attributes and skills.

Focuses upon the development of the 'enterprising person and entrepreneurial mindset'.

Constitutes a set of personal skills, attributes, behavioral and motivational capacities.

Which can be used in any context.
What questions should we do?
What is the entrepreneurial concept that challenges universities?
Is there really a need for a university to become more entrepreneurial?

- The major goal of any university must be to explore the dynamics of its environment.

Universities are facing higher levels of uncertainty and complexity in their environment.

Universities have had increasingly to look elsewhere for resource for research and extensions of their scholarship.
What are the major challenges to traditional university models?

- Governmental funding of the higher education sector
- Pressure for relevance in research and teaching
- Contribution to economic growth, social mobility, technical innovation and employability
How are these challenges shaping universities?

- Search for international partnerships in research and teaching
- Greater understanding of the wider contexts of knowledge sourcing and application
- Measures by universities excellence is judged
- Active partnering to leverage resources
- Active search of relevance
- Employment and salary; Impact of research;
How should a university respond to these challenges?
How should a university respond to these challenges?
How can the entrepreneurial potential of a university be explored and developed?

- Research, knowledge transfer and exchange;
- Stakeholder relationship and partnership development at the local, regional and national level;
- Internationalization processes;
- Enterprise and entrepreneurship pedagogy and knowledge organization across the university; and
- Governance, strategy, organization design and leadership at all levels.
How can the entrepreneurial potential of a university be explored and developed?

Exploration of enterprise and entrepreneurial education activity will reveal the potential for linking it with:

- Existing knowledge exchange programmes;
- Incubator and technology park activity;
- International alumni engagement;
- Local and regional social enterprise partnership activity;
- Joint ventures with business associations and local authorities in enterprise development;
- Formal teaching and learning strategies;
- Staff development programmes; and student led initiatives.
How can a review of entrepreneurial potential contribute to achievement of key university objectives?

How enterprise and entrepreneurship can add value in meeting a university's key strategic objectives

Enhancing the student experience, employability and employment

Achieving excellence in teaching and learning

Innovation in research approaches, achieving impact and finding resource

Broadening revenue flows & Improving knowledge exchange processes;

Improving knowledge exchange processes & Creating an international presence
THE ENTREPRENEURIAL UNIVERSITY IN ACTION: King Abdulaziz University (KAU) Case Study

- Personal perspective of the range of challenges faced by KAU in becoming more entrepreneurial
King Abdulaziz University (KAU) Case Study
Entrepreneurial Strategy: the complex environment

- In common with much of the higher education sector in KSA, KAU is facing radical change.

- Public funding for teaching is reducing

- Research funding is increasingly concentrated and new private competition is being introduced

- High number of organizations in the immediate locality are looking to the university for support, partnership and stability
King Abdulaziz University (KAU) Case Study
Entrepreneurial Strategy: focus upon business relationships

- A key response from the university to this changing external environment is a reaffirmation of KAU commitment to working with business.

Critical differentiator for ensuring that both teaching and research are business-relevant

Attracting students and producing employable and entrepreneurial graduates

Supporting new business creation in its own right;

Embedding innovation and skills in businesses with the capacity for growth
King Abdulaziz University (KAU) Case Study
Entrepreneurial Strategy: focus upon business relationships

The university embarked on a strategic change project some eight years ago to inculcate a stronger entrepreneurial culture in the institution.

- The project involved the appointment of senior academic managers in schools with responsibility for business engagement;
- A programme of incentives and rewards; An extensive staff development and mentoring programme;
- Creation of a university-wide team of business development managers, underpinning infrastructure and systems, including a customer relationship management system;
- And networks and events to develop a business-facing community with real critical mass in the university.
King Abdulaziz University (KAU) Case Study

Entrepreneurial Strategy: the entrepreneurial potential

- King Abdulaziz University, undertook a range of activities designed to enable it to become more entrepreneurial.

Since 2009, KAU has been divided into a set of universities, converting its branches in independent universities to serve the community with more dedication and focus.

Creating opportunities and support for new business start-ups, between staff and students.

Emphasis of the 'entrepreneurial university' was also to be on the curriculum: developing and translating knowledge across different disciplines in line with a closer application to employment.
King Abdulaziz University research ship «Azizi» for marine science studies
King Abdulaziz University (KAU) Case Study
Entrepreneurial Strategy: support from the top

- KAU administration approved the adoption of the ‘entrepreneurial university’ within its second 2015

Enterprise Wadi-Jeddah

A closed joint stock company, as the investment arm of king Abdulaziz University
KAU – Case Study: Wadi-Jeddah
King Abdulaziz University (KAU) Case Study
Entrepreneurial Strategy: support for start-ups

- Increasing the opportunity for student start-ups.

In 2009, “KAU Innovation Centre” opened alongside the University's Business Development Team adjacent to Wadi-Jeddah, and mentoring sessions started for students and staff.

In 2010, a Graduate Incubation Centre opened with offices for new graduate start-ups, an open plan incubator area for hot-desks, a training room and meeting room.

These activities built on KAU's track record of success in business/community engagement, including a flow of student start-ups and, broadly speaking, the existence of a vocational/professional curriculum.
KAU – Case Study: Wadi-Jeddah

A set of projects/companies established by Wadi-Jeddah and students/faculty from KAU

- Molecular Imaging Center (I-One)
- Saudi Alliance for Education Development and Training (SAFEA)
- Clinical Research Organization (KAU Med)
- Marsa Al-Ma’arefa
- Jed Med
- Jed Tek
KAU – Case Study: FABLAB

KAU FABLAB is owned by IPHub (Innovation & Prototyping Hub) that powered by KAU (King Abdulaziz University) in Jeddah, being the main umbrella for inventors and makers to develop any idea and take it further level.
First Middle East's genomic medicine journal launched by KAU. Issued by the Center of Excellence in Genomic Medicine Research (CEGMR) in partnership with Nature Publishing Group.

King Abdulaziz University Hospital Clinical Skills Center Awarded 1st Place in the "Saudi Health Simulation
KAU – Case Study: Examples
KAU – Case Study: Airplane & Cars

Drone & Car
solar-powered
KAU – Case Study: Fida Needle

"Fida Needle" .. One of the best Saudi medical invention
KAU – Case Study: Kanagawa Science Park

وقعت شركة #وادي_جدة اتفاقية تعاون مع حديقة كاناغاوا #العلمية، التي تُعد أعرق حديقة علمية في اليابان ومن أكثر المؤسسات اليابانية نجاحاً

Translate from Arabic
KAU – Case Study: Other inventions

An Alert Watch for Diabetic Patients

- Diabetic patients are exposed to coma. An alert device is developed to help patients take action before the coma. The device comprises of a micro sensor placed beneath the skin to send signals to a watch worn by the patient that displays the level of blood sugar continuously.

Fire-Extinguishing Cable Tubes

- Electrical wire extensions may get heated and could result in a short circuit. The electrical wires are to pass through a plastic tube coated at its inner surface with fire-fighting powder. If the tube is overheated the powder is sprayed on the electrical wire to put-off the fire.

Time Saving Elevators

- Elevators could get quite crowded such that no one can step in when the elevator stops for new passengers, wasting the time of all. Sensors are installed at the ceiling of the elevator to assess the vacancy of the elevator, such that it wouldn't stop unless passengers want to get off.

Free Power @ Remote Intersections

- Some intersections pause traffic hazard when they are in remote locations outside cities. This requires providing power to such locations. It is sought to utilize the piezoelectricity generated by the vehicles' motion on the road to provide the power needed to operate the traffic light at the intersection.

Miraculous Combination of Figs and Olive Oil

- A compound of natural foods is developed to reduce the level of cholesterol in the blood. The recipe comprises of 1 fig soaked in 7 ml of olive oil for 24 hrs. The mixture is purified and fed to the albino lab mice orally. Electron microscopy diagnosis showed histological recovery.
Thank you for your attention

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