UNIVERSITY RANKING AND
BENCHMARKING: A
DEVELOPING COUNTRY
UNIVERSITY PERSPECTIVE*

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OUTLINE OF THE PRESENTATION:

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I. CONTEXT

- FUNCTIONS OF UNIVERSITIES
  - Teaching/Learning/Training the next generation and workforce (student development via *knowledge transfer*)
  - Research and Scholarship (*knowledge discovery/creation* for innovation and wealth creation)
  - Advisory services on societal problems (*knowledge application*)

*Universities are a critical to the development of the “knowledge/information society/economy”*
CONTEXT

• CHALLENGES FACING UNIVERSITIES RE. FUNCTIONS
  ◦ Rapid changes in technology and its use in higher education (eg MOOC-massive open online courses, smart classrooms)
  ◦ Growing competition from other educational institutions (eg TVET, professional associations, offshore institutions)—globalisation process
  ◦ Pressing demand for relevance, accountability, quality standards, efficiency by stakeholders
  ◦ Growing demands for accessibility to university education as a driver of economic progress and social mobility—part time students, female students, online learning etc
CONTEXT

- Economic volatility and uncertainty especially with respect to government funding—reduced public funding and increased tuition fees which affect affordability.
- The diversity of students now entering the university system (varying backgrounds and initial knowledge).
- The increasing cost of running a university establishment—the so-called “cost disease”.
- Maintenance of quality standards and high levels of productivity (given limited resources for research).
- Recruitment of high quality staff (academic and administrative/professional).
- Slow and bureaucratic structures with high resistance to change.
CONTEXT

**SOME RESPONSES BY UNIVERSITIES**

- Establishing **quality standards** for teaching, research, administration.
- Undertaking **accreditation** exercises
- Engaging in **strategic planning** and associated operational/action planning
- Forging **smart/strategic partnerships** with private sector and national/international institutions (colleges and universities)
- Introducing **ICT in core functions** (academic and administrative)
- **Diversifying income sources**
In responding to the challenges—internal and external—university leadership/management has drawn on various tools—strategic planning, quality management, balanced scorecard etc.

*Ranking systems* and *Benchmarking* have been used. These tools have been used within *the context of strategic planning and management* in a competitive environment.
Universities are seeking to become “world class” and are employing various strategies including the use of ranking systems and benchmarking.

“World Class” status involves inter alia:

- Cutting edge research while teaching the next generation of students
- High concentration of talent (staff and students) from across the world
- Significant resources (financial and educational)
- Interdisciplinary research and teaching
- Favourable governance arrangements (autonomy, leadership, academic freedom, supportive administrative structures)
2. UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

- **University Ranking** refers to the ordering of the performance and/or characteristics of a set of universities based on a set of measures/indicators (**input, output, process, outcome/impact**). The different measures/indicators are combined into a single measure/indicator and then ordered in a descending manner with the highest value being ranked at the top.

- The overall aspects of the universities may be considered or selected parts of the universities (e.g., subject area/disciplines).

- **Cluster analysis** can be used to group universities.
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

• University Ranking systems provide a *comparative analysis* of university performance/characteristics at
  ◦ Global level
  ◦ Regional level (eg Europe, Latin America)
  ◦ National level (eg USA)
  ◦ Level of Development (eg Developing countries)
  ◦ Special Group level (eg ACU)

Several ranking systems are available for several purposes—“a *profitable growth enterprise*”. *Sixteen (16) Global* ranking systems exist (Wikipedia)
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

- Selected Ranking Systems include:
  - **Global**—Shanghai Academic Ranking of World Universities (ARWU), Times Higher Education-Thomson Reuters World University Rankings, Quacquarelli Symonds (QS) World University Rankings, Webometrics
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

• Several Limitations of these Systems have been identified:
  ◦ Choice of indicators/proxies
  ◦ The determination of the weights
  ◦ The coverage of the universities and countries and their sizes (relatively small number of universities used)
  ◦ The range of subject areas selected
  ◦ The absence of teaching and learning
  ◦ The sources of data
  ◦ The subjectivity of the indicators used
  ◦ The language sources for some indicators
  ◦ The calculation of the overall indices (akin to the Index Number Problem in statistics)

Berlin Principles of Ranking of HE Institutions suggested
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

**Shanghai’s ARWU Features**

- **Research Output** (papers published in *Nature* and *Science* and indexed in Science and Social Sci Citation Indexes) - 40%
- **Quality of Faculty** (Nobel Prize Winners and Field Medallists on staff, highly cited researchers in 21 subject areas) — 40%
- **Quality of Education** (alumni who are Nobel or Field Award winners) — 10%
- **Per capita performance** — 10%

Selection of 1000 out of over 17000 universities with 500 selected for “league table”
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

• **Webometrics Ranking of World Universities Features:**
  ◦ **Visibility on Web** (number of unique external links received by a site from a Yahoo search) — 50%
  ◦ **Size of University Web** (number of pages recovered from Google, Yahoo etc) — 20%
  ◦ **Rich Files** (number of pdf, ps, doc, ppt files) — 15%
  ◦ **Scholar** (number of papers/citations extracted from Google Scholar) — 15%
  ◦ Over 20,000 HE institutions analysed and 12,000 included in the final list
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

- **Benchmarking** is a *systematic process for measuring and comparing the practices/processes/performance of an organisation against the “best” in the field*. The focus is adopting the appropriate “**best practices**” (ie those that have produced superior performance) within the organisation.
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

- **Forms of Benchmarking** include:
  - **Internal**—using practices/processes/performance within the organisation (eg different Campuses)
  - **External/Competitive**—using other universities (preferably world class ones that are comparable and in direct competition)
  - **Process/Generic**—using specific generic processes in comparable top class universities and other institutions (eg procurement, online delivery, admissions),
  - **Functional**—examining specific functional areas (eg HR, M &C) across the industry.
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

• **Benefits of Benchmarking:**
  ◦ Provides a baseline and helps with goal/target setting
  ◦ Enhances productivity and cost saving
  ◦ Improves employee engagement
  ◦ Streamlines processes and procedures
  ◦ Allows networking with high performing institutions
  ◦ Helps with understanding market dynamics and organisational processes (via *process mapping*)
  ◦ Improves information sharing
  ◦ Helps to better understand stakeholder (students, staff, external parties) needs
  ◦ Ensures **continuous organisational improvement** /development within the context of strategic planning
UNIVERSITY RANKING AND BENCHMARKING SYSTEMS

- **Linking Ranking and Benchmarking:**
  - In theory, ranking systems should be able to provide the comparable institutions for benchmarking (external/functional)
  - Ranking would indicate the universities *within a performance cluster*, then a selection can be used to undertake the benchmarking exercise – nearest neighbour or same cluster (this helps with the identification/selection problem)
  - For example, Webometrics rankings can be used to benchmark website presence, while the Shanghai, QS and Times HE-Thomson Reuters can be used for research benchmarking
3. CHALLENGES FACING UNIVERSITIES IN DEVELOPING COUNTRIES

- Issue of definition of “developing country” in the context of the Ranking Systems---S. Africa, India, China, Brazil, S. Korea, Singapore?? Emerging /DevelopingCountries?? BRICS

- In general, developing countries are under-represented in the existing global ranking systems except Webometrics which covers 12,000 universities/HE institutions.

- *Times* cover Top 400 and *Shanghai* cover Top 500 with a few developing emerging country universities included
CHALLENGES FACING UNIVERSITIES IN DEVELOPING COUNTRIES

- Developing country universities are classify very lowly in the Webometrics (Africa, Latin America, Caribbean, Pacific, SE Asia)

- Several of these universities find it difficult to be in Top 400 or 500, but still offer a good foundation in many subject areas which allow students to enter universities in the Top 50, 100.

- Undergraduate degrees from several developing country universities have universal currency (reflects “global public good” nature of knowledge). Several of them have strong systems of quality and credibility.
CHALLENGES FACING UNIVERSITIES IN DEVELOPING COUNTRIES

- Global Ranking systems are weak on teaching/student development (except Times HE-Thomson Reuters ranking which includes a component on teaching since 2010).

- The indicators in several of the ranking systems can be challenging for universities in developing countries to meet as they focus heavily on research performance.

- Some ranking systems can be seen as Clubs with criteria for being part of the membership. Many universities are not members of these clubs and need to reach the qualifying standards and/or provide information if they want to join.
CHALLENGES FACING UNIVERSITIES IN DEVELOPING COUNTRIES

- Universities in “developing countries” face several challenges in general:
  - Limited financial resources which affect several other resources (human and equipment)
  - Significant public funding
  - Few international students
  - Inability to attract and retain top level staff
  - Inadequate information systems/website presence
  - Weak research culture (esp in S&T)
  - High student enrolment at the undergraduate level
  - Varying degrees of political influence (lost of full autonomy)
CHALLENGES FACING UNIVERSITIES IN DEVELOPING COUNTRIES

- Universities in developing countries assist greatly with the HR and other development needs of the countries within which they are located.
- But they lag behind in the global knowledge curve (esp in S&T). They tend to be users of global knowledge and adaptors of such knowledge.
- Hence universities need to use the existing ranking systems very selectively/creatively until they identify the performance cluster within which they lie.
- Times-Thomson Reuters system looks promising in this regard as it covers all the core functions.
4. USES OF RANKING AND BENCHMARKING IN A DEVELOPING COUNTRY CONTEXT

- Several universities in developing countries have used the global ranking systems to review their operations in moving towards “world class research institutions”—Nigeria, India, Sri Lanka, Malaysia- with a focus of Science and Technology investment.
- The ACU has an ongoing Benchmarking project with universities from developing countries involved.
- Times HE-Thomson Reuters has a Global Institutional Profiles program with universities from developing countries included.
USES OF RANKING AND BENCHMARKING IN A DEVELOPING COUNTRY CONTEXT

- Ranking and Benchmarking systems can be used for several purposes in universities in developing countries:
  - Guide to data collection and information system development
  - Developing strategic/smart partnerships with universities in higher performing clusters (e.g., joint and dual degrees, research collaboration)
  - Seeking to attract funding from development partners and others as part of institutional strengthening and capacity building
  - Allocate scarce resources to strategic areas
USES OF RANKING AND BENCHMARKING IN A DEVELOPING COUNTRY CONTEXT

- Ensuring accountability and transparency in operations
- Internationalisation of the university (the next frontier for universities in developing countries). For example, the UWI has this as a key part of its Strategic Plan 2012-17 with the theme Regional Impact, Global Visibility
- Continuous Organisational Performance Improvement in all its academic and administrative systems
- Building reputation, visibility and brand in selected aspects of its programming
- Identification of critical success factors in its strategic planning process (high quality research, web presence, funding etc)
USES OF RANKING AND BENCHMARKING IN A DEVELOPING COUNTRY CONTEXT

- University of Cape Town Case study (Max Price)
  - THE-TR ranking: 103(2011/12), 113(2012/13)
  - Benefited from legacy of apartheid era
  - **Strategy for World Class University:**
    - **Overcoming the financial resource constraint** (autonomy to set higher fees, grants from int. foundations and Govt for research, partnerships with private sector)
    - **Talent management** (attracting best students-local and overseas-and recruiting/retaining best staff)
    - **International Partnerships/Networking** (international joint research, conferences, attachments etc to enhance global visibility)
    - **Branding/Positioning** (centre for all things African)
USES OF RANKING AND BENCHMARKING IN A DEVELOPING COUNTRY CONTEXT

- **Singapore** was at the same level of development as several small developing countries in the 1960s, for example the Caribbean, now it has two (2) universities in the THE-TR’s **Top 100**.
- Demonstrates the link between *national development strategy* and *the role of universities* in this strategy.
- Need to examine other cases in the developing world
5. CONCLUSION

- **Comparing** and **seeking to improve one’s state of wellbeing** are part of human nature, so the principles of ranking (rating) and benchmarking will continue to be used.

- Need to use them **strategically** and **creatively** (that is, they form part of the set of tools/techniques used in the **strategic planning/management process** which considers **the relationship of the university with its external environment**).

- **Ranking and Benchmarking systems will never be perfect although they can be improved, so we must use the underlying principles and not be slaves to their results**.
CONCLUSION

• The **UWI** plans to use the principles of both systems in its *Strategic Plan 2012-2017* as it seeks to enhance its global visibility and considers *the new frontiers* of higher education (internationalisation, online programming, greater private sector investment, greater use of ICT in its operations, commercialisation of research etc).

• **It seeks to enhance the quality of its operations and its outputs** (students, research) and to stay relevant, impactful and competitive in a dynamic external environment.
Thank you