

Conference GMT/TA3
***‘Adapting Regional Economies for Global
Competitiveness –
Expanded Roles for Educational Institutes’***
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**HEIs and Economic Development in the US: A 21st-
Century Perspective from North Carolina and
Manchester**

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Outline of presentation

- Bottom line “takeaways”
- Changing demands on higher education
- My perspective on
 - The changing role of HEIs generally, and B-Schools, in the 21st – century
 - Engagement
- Examples

Bottom line “takeaways”

- The 21st-century knowledge economy puts higher education more at the centre of policy than at any previous time
 - Increasingly complex problems require the application of both basic and applied knowledge
 - There is as much a need for more big science as there is for more applications of small science and technical know-how
 - As competition among world regions for economic activity intensifies, those regions that forge partnerships among HEIs of all types will win
 - Different types of HEIs have to work together in their specialised arenas

Bottom line “takeaways”

- Changing demographics and learning styles require all types of HEIs to provide new models of teaching
 - More distance (blended) learning
 - More courses taught at convenient times and places
 - More courses geared to lifelong and returning students
- As HEIs are expected to do more, there will be increasing budgetary stress, especially for the majority that are not the elite endowed
 - Governments want to see their relevance for economic development, creating new metrics
 - Private donors and foundations want to be assured their investments pay off
 - Students, asked in many instances to pay premium fees, demand quality instruction and service.

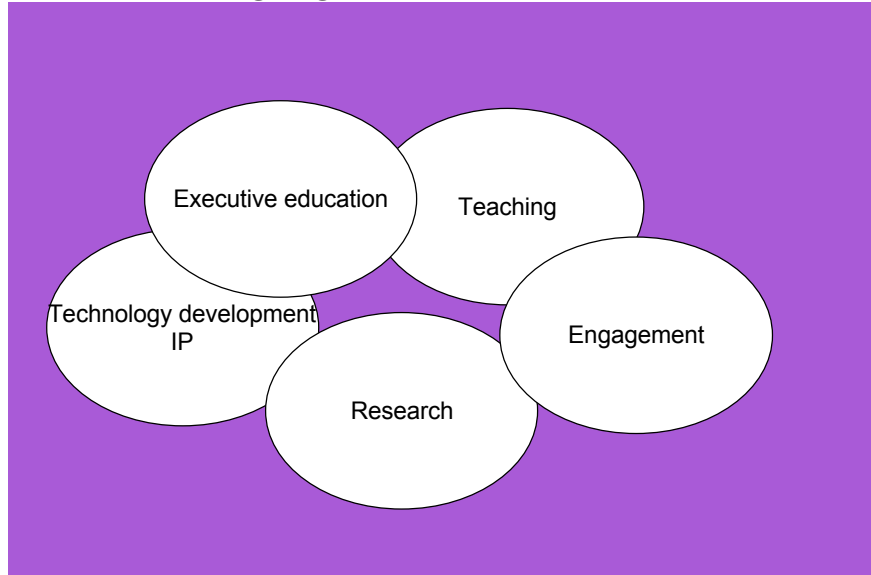
Bottom line “takeaways”

- HEIs become an increasingly important part of the economic development delivery system at the local/regional level
 - Helping to attract technology-intensive businesses
 - Helping regions assess opportunities through strategic planning and analysis
 - They increasingly measure and communicate their importance to the region in terms of new technology development, job creation, and increasing competitiveness, including the attraction/retention of economic activity and talent
 - Helping to prepare students for careers in ED and related fields

Changing demands on HEIs

- HEIs are multi-product organisations with heightened expectations on their performance in all sectors.
- At the same time, resources for HEIs generally have not increased commensurately
 - public universities and colleges in US have stepped-up fundraising (picking up in Europe too)
 - UK universities chase premium fee students
 - UK universities skew behaviour to cash in on RAE
 - HEIs (not just universities) beef up technology development hoping for the Gatorade outcome
 - universities undertake other innovative money-making schemes
 - iBEST and other certification for fees
 - MBSW and private investment

Changing demands on HEIs



My perspective: Changing role of HEIs

- In the 17th and 18th centuries we had an agrarian economy that had its own set of requirements for labour (planting, tending, and sowing), for marketing and distribution, for infrastructure (irrigation), and even for ownership and finance.
 - Clearly technology and invention were important, but most value was added by hard labour inputs. Universities in this era were mostly for the landed elite—to help them be gentlemen farmers, so to speak – erudite learners of the classics, the arts, history, and science. The universities' benefactor during this era was typically the church. An educated man was a godly man. I am not suggesting that universities were mere indulgencies without any societal benefits—discoveries from universities allowed society to advance.

My perspective: Changing role of HEIs

- Then we had the industrial revolution, from the 18th through the 19th and 20th centuries, where machines became the key drivers.
 - Labour was also important, but productivity depended on the quality of the machines on which they worked. An industrial economy had its own set of requirements for labour (more skilled), infrastructure (increasing need for power and transportation), finance and ownership. In North America we saw universities being endowed by major capitalists – Stanford, Carnegie-Mellon, Rochester, and Vanderbilt, to name a few. And we saw the recognition that education was the key to social mobility, giving rise to most state universities in the US. But through most of this period universities remained the province of the elite, with university attendance as a percent of the population very low. A second tier of higher education arose – technical or polytechnic colleges, directed toward much more practical, hands-on knowledge, specifically the trades.

My perspective: Changing role of HEIs

- Now we are rushing headlong into another era—the knowledge economy—where ideas and intellectual property are the major contributors of value.
 - This is not to say labour and capital are not important, but the rate of change has accelerated because of the faster pace of discovery and invention, so labour and capital become obsolete quickly and need to be replaced. New discoveries in materials and transistorization occur every year, allowing changes in the machines we use, always smaller and more powerful, with more applications.

My perspective: Changing role of HEIs

- So the speed of change is one key dimension of this new economy. So is the need for flexibility, since planning horizons are less certain. New discoveries and the products and processes they allow create a much richer, more complex world. We have more time for leisure. Sectors other than extraction, processing, manufacturing, and distribution become important—namely services and finance. And peoples' greater longevity has profound social implications. Medical science itself is an important industrial activity – related to pharma, medical devices, and genetics, for example -- but it also creates the need for new retirement and health care services for an increasingly long-lived population.

My perspective: Changing role of HEIs

- Finally, the knowledge economy is characterized by the blurring of boundaries between disciplines, between borders, even between ideologies.
 - The blurring between disciplines shows up in many ways: consider the names of some important new fields: bio-chemistry and bio-infomatics, for example. Those who work in the IT area, broadly defined, understand the shrinking boundary between hardware and software.. programming embedded in the material, which gets smaller and smaller to nano scale.
 - The blurring between borders is a key dimension of globalization. Economies are increasingly open, trading more and more freely. People flow across borders more freely as well, as do ideas and information. Markets for goods, services and ideas are international, and businesses that ignore that, typically fail. For at least the last century globalization has created two classes of countries—those controlling the means of production and those using those means to produce. Or in common parlance—developed and less developed. That still exists, and some measures of equality have gotten worse. But globalization also has created a rapid path of development for many countries – as we saw with the Asian Tigers and Dragons, and are starting to see in China and India.

My perspective: Changing role of HEIs

- What does this new era mean for HEIs? In general, it makes them a much more critical part of society. They are knowledge institutions, which by very definition are central to the knowledge economy.
- If knowledge, if ideas, are the currency of the present and future, the attribute we all must have to succeed, then HEIs must make themselves accessible to and accommodate more students.
 - more students from different places and cultures, leading to increased diversity
 - more students with lower family incomes
 - more students at different stages of their lives – returning, mature, as well as 18 year olds.
- Those have implications for the times, places, and ways we teach, and for the fees we charge and assistance we provide

My perspective: Changing role of HEIs

- The speed of change has implications as well—it makes what we've learned in the HEI obsolete pretty quickly.
- The implications of this also are clear: the need for lifelong education, providing opportunities for students of all ages to retool and refresh. That is true for businesses and professionals, as well as more generally. Universities' *raison d'être* is to be at the forefront of new developments in knowledge, and then, to translate them into lessons for students.
- A related implication is that students are less likely to stay on one career path. The age of the IBM lifer is long gone. Our graduates tend to move between functions, sectors, and industries. So when they are with us, they need to be exposed at least to more areas of knowledge. That gives them more flexibility and agility in the marketplace, and helps them bring more value to their employer.

My perspective: Changing role of HEIs

- A related point is that the greater technical complexity of the knowledge economy requires students to be more sophisticated and nuanced to understand the larger number and type of linkages. I learned this when I was studying industrial recruitment in the US—looking at how states' economic development apparatus differed. The states most successful in inducing knowledge-era businesses to move there or expand employed recruiters who were not just good back-slappers and deal-makers. They were men and women trained both in business and in the technology area of the company they were trying to recruit or help. For example, besides their MBA (or related masters) they would have studied IT if they were working with firms in that sector; life sciences if working in that sector; and so on. That gave them credibility in the board room, but also, a greater ability to understand what those companies valued and needed.

My perspective: Changing role of HEIs

- The blurring to which I've been referring has important implications for HEIs, as well. HEIs are typically very rigid institutions, very slow and reluctant to change the way they are organized. The 20th century departmental structure often is at odds with the 21st century organization of knowledge. And some important new areas of inquiry are often not represented well, or at all, in institutions. (Now, entrepreneurship and sustainability, for example). This is a tension in many institutions, and a challenge for all.
- The blurring of borders requires HEIs to be global.
- Finally, all of these changes are creating enormous pressures on HEIs that threaten their ability to succeed. In short, they are being asked to do more things, for more students, in more ways, without a concomitant increase in resources.

My perspective: Changing role of HEIs

These observations provide the context for nine principles for success for a 21st-century Business School:

1. Business Schools need to understand what new technologies are all about. This is a world not just of Rolls Royce, Tata Steel, Airbus and Tesco, but of Google and YouTube, Hydrogen, and Nanotech. What requirements will these new technologies, and those yet to be unveiled, have for capital, labour, regulatory compliance, finance and taxation, and marketing? Business Schools must familiarize students not just with traditional business management functions, but also with the technologies themselves.
2. Related to that, Business Schools must understand how existing business can retool and change to incorporate new technologies and processes. That knowledge can be used as part of the required engagement function, but also, can be the basis for successful executive and continuing education programmes.

My perspective: Changing role of HEIs

These observations about universities provide the context for nine principles for success for a 21st century Business School:

3. Business Schools have to be flexible and prepared to alter their teaching and research programme to embrace new subjects of importance to businesses and society. In the past 15 or so years, for example, we have seen the growth of two new fields within Business Schools—entrepreneurship and sustainability. Both are driven by trends in the 21st-century. What other new areas will there be? And can we identify obsolete areas of study that should be jettisoned? (HEIs are very bad at cutback management).
4. More generally, Business Schools must appreciate the societal role they must play, not just because social responsibility is RIGHT, but also because it is in their best interest to appeal to the hearts and wallets of benefactors, alumni, and other funding sources who want to feel good about the institution they are asked to support. This social role, moreover, should start in Business Schools' back yard—in the region in which they are located. That not only is the most efficient way to fulfill their engagement requirement, but it also provides a ready laboratory for students – to test what they are learning on businesses while they go to class..

My perspective: Changing role of HEIs

These observations about universities provide the context for nine principles for success for a 21st century Business School:

5. Business Schools must be organized in such a way, and provide the right incentives, for borders to be crossed and barriers to cooperation broken down, between:
 - Academic divisions (such as accounting, finance, marketing, strategy, etc.)
 - Disciplines (economics, psychology, sociology, etc.)
 - The Business School and other schools within the university (Social Science, Engineering, Medicine, ...)
 - Applications to the public and private sectors, because we live in mixed economies where public organizations increasingly act like they are private (with contracting-out, market tests and incentives), and private companies are increasingly subject to government control and oversight, in such areas as taxation and regulation.

Crossing borders and breaking down barriers is the only way to deal effectively with the nuanced, interconnected, dynamic world in which businesses increasingly operate.

My perspective: Changing role of HEIs

These observations about universities provide the context for nine principles for success for a 21st century Business School:

6. Related to that, Business Schools (as well as other parts of the university) must assert leadership – as neutral providers of fact and interpretation in a world that is becoming so complex that values start to dominate. Take global warming, for example. The impact of taxes and regulation. The feasibility of alternative energy systems. Business Schools can conduct unbiased research on these topics and serve as convener and referee for the different sides.
7. Business Schools need to take globalization seriously, not just pay it lip service. A Harvard Business School professor recently studied whether the claims being made by major business schools about their global reach were much exaggerated. Being truly global means more than nominal partnerships with universities abroad, but rather, real partnerships with students and faculty flowing back and forth, joint and comparative research on common problems, IB projects where students really have to understand businesses' problems in a different context, business cases from places besides the U.S., diverse classrooms, and focused research centres that build real understanding of other places.

My perspective: Changing role of HEIs

These observations about universities provide the context for nine principles for success for a 21st century Business School:

8. Business Schools in the 21st century must embed management education in research. Leading business schools have to do more than familiarize their students with current managerial practices. We need to develop new and better practices and train students how to implement them. In the past these have included such techniques as advanced logistics, supply chain management, six sigma, new applications of IT and decision science, and more). Even more important, Business Schools have to ensure that students leaving with any degree (BSc, MSc, MBA, MPA, or PhD) knows how to learn, adapt, and grow in a job – to be a thought as well as an action leader in business. That is what a research-orientation is all about.
9. Finally, Business Schools today have to develop alternative teaching platforms and approaches to accommodate the diverse students, by age, location, experience, that seek business education. The full-time, on-campus degree programmes are important, but so are part-time, off-campus, weekend, distance learning, variants, which are as rigorous and comprehensive.

Ways we have incorporated these principles: engagement

Engagement

4 reasons to engage in region

1. Growth/development of region benefits HEIs
 - Makes it easier to attract best students and faculty
 - Keeps graduates here with more disp income – more development
2. The university can help the region;
Engagement can help solve real problems and improve society– that is a arguably universities' moral obligation, or its quid pro quo for public funding

Engagement

4 reasons to engage in the region

3. Region is a laboratory for students to learn under supervision
 - Whatever business problems there are anywhere will be present in Manchester, Galway, or Raleigh-Durham
4. Self- interest. MBS wants to increase its resources to invest in a better building, better faculty, better students....
Engagement makes what we do relevant

Engagement

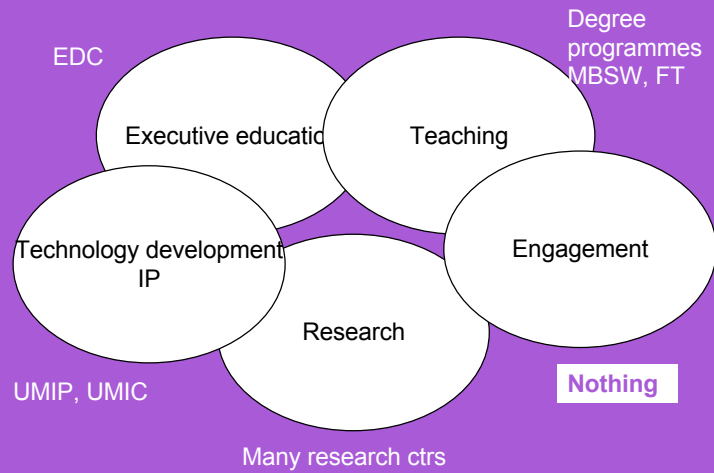
- Many universities (esp. land grant) in NA had Bureaus of Business and Economic Research, which did economic forecasts and related applied economic analysis
 - Good but limited
- Some had applied research centres in economic development.
 - Applied research: contracts/grants to apply rigorous methods and theory to address ED problems.
 - Result in peer-review publications
 - Considerable faculty buy-in
- Few had econ dev engagement centres
 - Working with real clients, much as a consultant would
 - Less faculty buy-in

Engagement

- In 1996, I was asked by the then-Chancellor (VC) of the university to start such an engagement centre, initially called the UNC Office of Economic Development.
 - We took on contracts from the CCS, DOC, regional ED authorities, counties, the federal government, other states, and others using a few faculty and many students
 - Had to convince faculty they could use results in publications by
 - Innovating new approaches
 - Having a variety of case studies to draw general lessons from.
 - Developed what is called in the literature “engaged scholarship”
- OED is now called the Centre for Competitive Economies, and is a permanent part of the Kenan Institute at the Kenan-Flagler Business School

Engagement

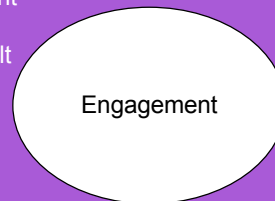
- 2007, started at MBS



Engagement

- 2007, started at MBS

- coordinate all course projects
- be lead part of school with government
- house MBS Ltd
- Create environment for staff to consult



*Connecting with businesses, NGOs,
governmental organisations... applying
the knowledge created within the
university to solve real world problems
– form of knowledge transfer*

**MBS Centre for
Engagement**

Engaged scholarship: Project examples

- Showing connection between research universities and community colleges
 - Staying on Top/Clusters of Innovation/Kerr-Tar Hub
 - Land site
 - Cluster identification
 - Labour supply
 - FSU Innovation Park, Science Park in Newark, NJ
 - Industry cluster resource centres
 - Displaced worker study
 - Carteret county marine resource and education project (ECU)
 - Kannapolis (David Murdock food science research–UNC and NCCC systems)

Engaged scholarship: Project examples

- Showing connection among research universities
 - TUCASI, RTI, RTF
 - Northern Way, N8
 - Daresbury (Lancaster, Liverpool, Manchester)
 - Tyndall (manchester, Newcastle,...)
 - UPitt and CMU
- New metrics as an engagement activity