

## EMERGING TRENDS OF HIGHER EDUCATION IN DEVELOPING COUNTRIES

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### **Abstract**

*Quality in Higher Education has become a primary agenda of the countries worldwide. In the context marked by expansion of higher education and globalization of economic activities, education has become a national concern in developing countries with an international dimension. To cope with this changing context, developing countries have been pressurized to ensure and assure quality of higher education at a nationally comparable and internationally acceptable standard. It is generally acknowledged that globalization has created tremendous impacts on higher education in this first decade of twenty-first century. Externally, there have been unprecedented changes both at global and national context. The benefits of globalisation accrue to the countries with highly skilled human capital and it is a curse for the developing countries in Africa, Asia, Latin America and Caribbean without such specialised human capital. This paper delves the recent trends of higher education in developing countries. It addresses the various challenges of higher education in the developing countries in the context of 21st century. Besides, the paper examines the response of higher education to globalization in developing countries and discusses the major challenges that the globalization brought to higher education.*

**Keywords:** Higher education, developing countries, globalization, economic development, human capital, Information and communications technologies.

**JEL classification::** A22; A23; I22; I23; O12

A well developed and equitable system of higher education that promotes quality learning as a consequence of both teaching and research is central for success in the emerging knowledge economy. It is widely acknowledged that education contributes significantly to economic development. The developed world understood much earlier the fact that individuals with higher education have an edge over their counterparts. They are the ones who always believed that any amount of investment in higher education was justifiable. It is, therefore, imperative for developing countries too, to give due importance to both the quantitative and qualitative expansion of higher education (Ved, 2007: 3249).

The role of higher education is not limited to fostering the economic development of nations and providing opportunities for individuals, it extends also to promotion of cultural diversity, political democracy and trade. Emphasis is rightly placed on how higher education can better serve society and promote international cooperation.

The dawn of the new millennium has brought a significant amount of new ideas on financing of higher education. The world economy is experiencing an unprecedented change. New developments in science and technology, competition, media revolution and internationalisation are revolutionising the education sector. We are witnessing paradigm shift in higher education, from 'national' to 'global education,' from 'state controlled' to an 'open market economy,' from 'general education' to an 'educational system driven by market forces,' from 'one time education for a few' to 'life long education for all,' from 'teachers centred' to 'learner centred' education (Venkatasubramanian, 2002). These changes make new demands and pose fresh challenges to the established education systems and practices.

It is generally acknowledged that globalization has created tremendous impacts on higher education in this first decade of twenty-first century. Externally, there have been unprecedented changes both at global and national context. Internally, the Universities in developing countries have experienced various demands that challenge not only previously existed university governance, institutions, management and operational systems but also academic life. Thus, there is a need for higher education in developing countries, to have greater flexibility to be more responsive to the impact of globalization.

Since the 1980s, the World Bank has relied heavily on rates of return to education as the main rationale for educational investment (Rena, 2000; Psacharopoulos, 1994; World Bank, 1995). These studies seek to assess the public/private cost of education and the public and private gains thereof. They have led to an assertion of the high social benefit of primary education, and the high private benefit of tertiary education to the recipient.

Tertiary education has always been an important priority in the public agenda. It is a repository and defender of culture, an agent of change in this culture, an engine for national economic growth, and an instrument for the realization of collective aspirations (Rena, 2008).

The public interest in tertiary education is generally present whether the delivering institutions are publicly or privately owned, and /or are publicly or privately financed. However, the modern world of tertiary education is undergoing enormous reforms and this finance and management reform agenda can usefully be viewed in the context of five themes: (1) Expansion and Diversification--of enrolments, participation rates, and number and types of institutions; (2) Fiscal pressure—as measured in low and declining per-student expenditures and as seen in overcrowding, low-paid faculty, lack of academic equipment or libraries, and dilapidated physical plants; (3) Markets--the ascendance of market orientations and solutions, and the search for nongovernmental revenue; (4) The demand for greater accountability—on the part of institutions and faculty, and on behalf of students, employers, and those who pay; and (5) The demand for greater quality and efficiency—more rigor, more relevance, and more learning.

Knowledge is the driving force in the rapidly changing global economy and society of 21st century. Quantity and quality of highly skilled human resources determine their competence in the global market. Emergence of knowledge as driving force results in both challenges and opportunities. It is now well recognised that the growth of the global economy has increased opportunities for those countries with good levels of education and vice versa (Carnoy, 1999; Tilak, 2001). The benefits of globalisation accrue to the countries with highly skilled human capital and it is a curse for the developing countries in Africa, Asia, Latin America and Caribbean without such specialised human capital.

As the process of globalization is technology-driven, and knowledge-driven, the very success of economic reform policies critically depends upon the competence of human capi-

tal. But, what is observed is the reverse. Even within the education sector, relative priority assigned to higher education has been on the decline.

It is to be realized that higher education institutions in developing countries play an important role in setting the academic standard for primary and secondary education. They are also responsible for not only providing the specialised human capital in order to corner the gains from globalisation, but also for training inside the country, provide policy advice, etc.

### **THE CONTEXT OF HIGHER EDUCATION**

Despite years of thought by some of the world's best brains, nobody really knows whether universities are an essential prerequisite of economic growth, or whether university systems expand as economies get richer. Either way, many ambitious nations across Asia have decided that higher education is essential to their future economic plans (Ince, 2009). They are expanding and improving their university systems, and the results are already becoming apparent in many countries of the World.

Quality in Higher Education has become a primary agenda of the countries worldwide. In the context marked by expansion of higher education and globalization of economic activities, education has become a national concern in developing countries with an international dimension. To cope with this changing context, developing countries have been pressurized to ensure and assure quality of higher education at a nationally comparable and internationally acceptable standard. Consequently, many developing countries such as India, China are initiated national quality assurance mechanisms and many more in the process of evolving a suitable strategy. But it's not going to be easy where there are resource constraints.

### **THE IMPACT OF GLOBALIZATION**

Globalization, a key reality in the 21st century, has already profoundly influenced higher education. The reality shaped by an increasingly integrated world economy, new information and communications technology (ICT), the emergence of an international knowledge network, the role of the English language, and other forces beyond the control of academic institutions. The Governments and Universities are implementing the variety of policies and programs to respond to globalization. These typically include sending students to study abroad, setting up a branch campus overseas, or engaging in some type of inter-institutional partnership.

Universities have always been affected by international trends and to a certain degree operated within a broader international community of academic institutions, scholars, and research. Yet, 21st century realities have magnified the importance of the global context. The rise of English as the dominant language of scientific communication is unprecedented since Latin dominated the academy in medieval Europe. Information and communications technologies have created a universal means of instantaneous contact and simplified scientific communication. At the same time, these changes have helped to concentrate ownership of publishers, databases, and other key resources in the hands of the strongest universities and some multinational companies, located almost exclusively in the developed world (Altbach, Reisberg and Rumbley, 2009).

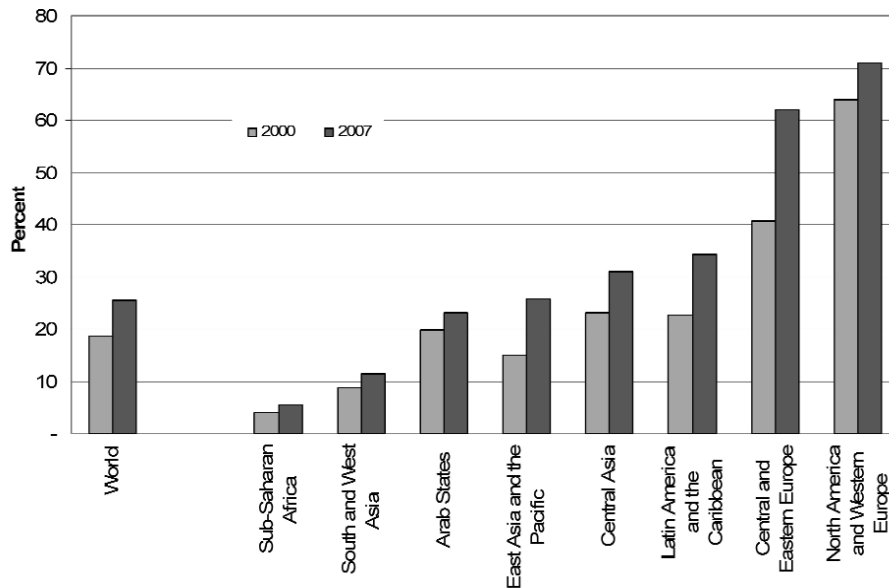
The last decade has also seen a veritable explosion in numbers of programs and institutions that are operating internationally. **Qatar, Saudi Arabia, Egypt, Singapore and the United Arab Emirates stand out as examples** of countries that have boldly promoted internationalization as a matter of national policies: they have recruited prestigious foreign universities to establish local campuses, with the goal of expanding access for the local student population and serving as higher education "hubs" for their regions. But for the world's poorest countries and most resource-deprived institutions, the opportunities to engage internationally can be extremely limited.

Inequality among national higher education systems as well as within countries has increased in the past several decades. The academic world has always been characterized by centres and peripheries. The strongest universities, usually because of their research prowess and reputation for excellence, are seen as centres. **African universities for example, have found it extremely challenging and complex to find their footing on the global higher education stage - they barely register on world institutional rankings and league tables and produce a tiny percentage of the world's research output.** There is growing tension around the centre-periphery dynamic. Developing countries often desire world-class universities on par with the traditional universities at "the centre". The rankings of academic institutions and degree programs add to this tension. International rankings favour universities that use English as the main language of instruction and research, have a large array of disciplines and programs and substantial research funds from government or other sources. These rankings have methodological problems but they are widely used and influential, and show no signs of disappearing (Altbach, Reisberg and Rumbley, 2009).

#### HIGHER EDUCATION IN DEVELOPING COUNTRIES

The wealth of nations and universities plays a key role in determining the quality and centrality of a university or academic system. This places developing countries at a significant disadvantage, and puts special strains on most academic systems facing the dilemma of expanded enrolment and the need to support top-quality research universities.

Globally, the percentage of the age cohort enrolled in tertiary education has grown from 19% in 2000 to 26% in 2007, with the most dramatic gains in upper middle and upper income countries. There are some 150.6 million tertiary students globally, roughly a 53% increase over 2000. In low-income countries tertiary-level participation has improved only marginally, from 5% in 2000 to 7% in 2007. Sub-Saharan Africa has the lowest participation rate in the world (5%). In Latin America, enrolment is still less than half that of high-income countries. Attendance entails significant private costs that average 60% of GDP per capita.



Source: [Altbach, Reisberg and Rumbley, 2009, p. v.]

**Figure no. 1 Tertiary gross enrolment ratio by geographical region, 2000 and 2007**

Providing higher education to all sectors of a nation's population means confronting social inequalities deeply rooted in history, culture and economic structure that influence an individual's ability to compete. Geography, unequal distribution of wealth and resources all contribute to the disadvantage of certain population groups. Participation tends to be below national average for populations living in remote or rural areas and for indigenous groups. A number of governments have put measures in place to increase access: Mexico's Ministry of Education has invested in the development of additional educational services in disadvantaged areas with some success: 90 percent of students enrolled are first in their family to pursue higher education, 40% live in economically depressed areas. Initiatives in Ghana, Kenya, Uganda and the United Republic of Tanzania have lowered admission cut-offs for women to increase female enrollment.

The Indian government obliges universities to reserve a set of spaces for "socially and economically backward classes (Scheduled Caste (SC), Scheduled Tribe (ST), and Other Backward Class (OBC)). There has been modest improvement in the enrollment of these people over the past three decades. Although the reservation policy of the government says 49% of the total seats are allocated for the underprivileged people, for example SC-15%; ST-7% and OBC-27%, however, the participation of lower castes in the economic development is abysmal. The rural populations and Muslims lag behind the general population and lower castes tend to be clustered in less expensive programs.

In Brazil the legislature has mandated universities to reserve space for disabled and Afro-Brazilian students. Even in countries where enrolment is high, inequalities persist: in the United States, participation rates for minority students continue to lag behind. Community colleges have made tertiary education more accessible but research shows that the

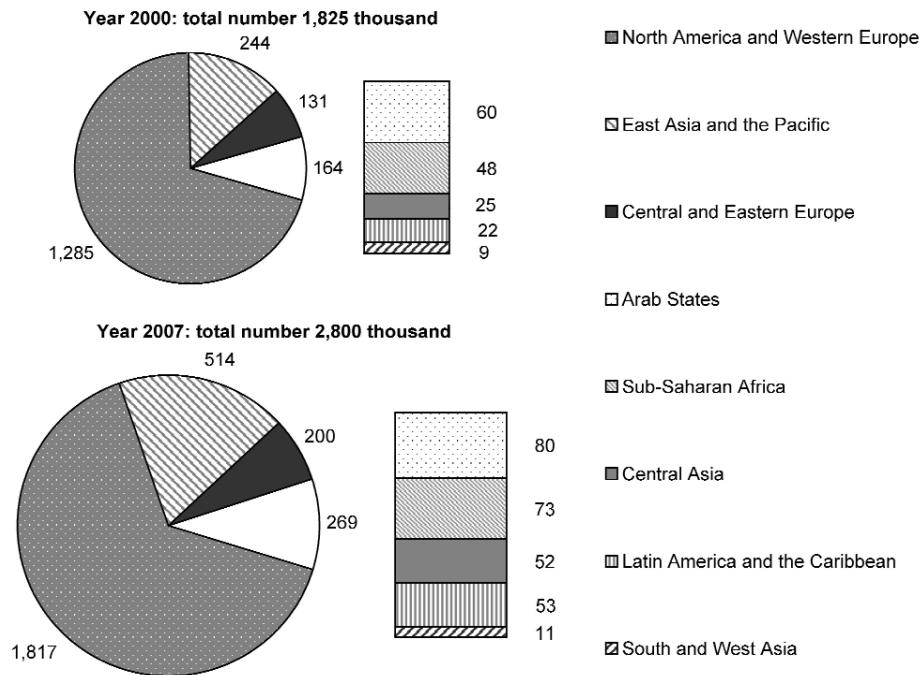
likelihood that community college students will continue on to a four-year degree is largely determined by the socioeconomic status of the student's family, regardless of race or ethnicity.

Cost remains an enormous barrier to access. Even where tuition is free, students have to bear indirect costs such as living expenses and often loss of income. Scholarships, grant and/or loan programs are demonstrating some degree of success but cannot by themselves remove economic barriers. Fear of debt tends to be a greater deterrent for students from poorer backgrounds. Income-contingent loan schemes (where repayment plans are tied to post-graduation earnings) have gained popularity in Australia, New Zealand and South Africa but are still more attractive to middle and lower-middle class students. Mexico has introduced loan programs that make the private sector more accessible to a broader spectrum of families. Chile has introduced a new loan program that targets students from low-income families.

### INCREASING STUDENT MOBILITY

More than 2.5 million students are studying outside their home countries. **Estimates predict the rise to 7 million international students by 2020.** One of the most visible aspects of globalization is student mobility. The flow of international students has been a reflection of national and institutional strategies but also the decisions of individual students worldwide. The mobility of international students involves two main trends. **One consists of students from Asia entering the major academic systems of North America, Western Europe, and Australia** (see Figure 2). Countries like the United Kingdom, Australia and Canada have adjusted visa and immigration requirements to attract foreign students, motivated to a significant degree by the desire to maintain economic competitiveness and realize financial gains by enrolling large numbers of full fee-paying internationals. The other is within the European Union as part of its various programs to encourage student mobility. Globally, international student mobility largely reflects a South-North phenomenon (Altbach, Reisberg and Rumbley, 2009).

Universities and academic systems themselves have developed many strategies to benefit from the new global environment and attract non-resident students. Some universities in non-English-speaking countries have established degree programs in English to attract students from other Asian African and Latin America countries. Universities have established partnerships with academic institutions in other countries in order to offer degree and different academic programs, develop research projects, and collaborate in a variety of ways. **Branch campuses, off-shore academic programs, and franchising arrangements for academic degrees represent only a few manifestations of such internationalization strategies.**



Source: [Altbach, Reisberg and Rumbley, 2009, p. vii.]

**Figure no. 2 Number of internationally mobile students by region of destination, 2000 and 2007**

The enormous challenge confronting higher education is how to make international opportunities available to all equitably. The students and scholars most likely to take advantage of the range of new opportunities in a globalized higher education environment are typically the wealthiest or otherwise socially privileged. If current trends of internationalization continue, the distribution of the world's wealth and talent will be further skewed.

### THE ACADEMIC PROFESSION

The academic profession is under stress as never before. The need to respond to the demands of massification has caused the average qualification for academics in many countries to decline. **It is possible that up to half of the world's university teachers have only earned a bachelor's degree (in China only 9 % of the academic profession has doctorates, 35% in India).** Many university teachers in developing countries have only a bachelor's degree, the number of part-time academics has also increased in many countries - notably in Latin America, where up to 80% of the professoriate is employed part time. In many countries universities now employ part-time professors who have full-time appointments at other institutions (China, Vietnam, and Uganda). It is also the case that professors at state universities in much of the world help to staff the burgeoning private higher education sector by 'moonlighting'. The variation in salaries among countries is quite significant, contributing to a brain migration to countries that pay more. A

recent study of academic salaries in 15 countries show that full-time academic staff can survive on their salaries but they do not earn much more than the average salary in their country. The expansion of graduate programs has been identified as a top priority worldwide but expansion has been slow because demand for basic access is so great.

The academic labour market has increasingly globalized, with many thousands of academics crossing borders for appointments at all levels. Again, the largest flow is South-North, with North America especially benefiting from an influx of academics from many countries, including many from Europe who are seeking higher salaries. The pattern of "brain drain" from the developing world has changed to some extent. Academics who leave their home countries now maintain more contact with their countries of origin and, from abroad, work collaboratively with home country colleagues. Nonetheless, patterns of academic migration continue to work to the disadvantage of developing countries. Some countries, including Singapore, the Arabian Gulf nations, and some western European countries, Canada and the United States have policies in place to lure scholars and researchers from abroad.

In terms of accountability and assessment, the professoriate has lost much of its autonomy. The pendulum of authority in higher education has swung from the academics to managers and bureaucrats, with significant impact on the university.

### **THE RESEARCH ENVIRONMENT IN DEVELOPING COUNTRIES**

The three missions of the modern university - teaching, research and public service - live in constant tension with each other at different levels. Universities, to the extent that they enjoy autonomy to develop their own plans and programs, must make hard choices in setting priorities and allocating resources. Research universities are at the pinnacle of the academic system and directly involved in the global knowledge network. They require major expenditures to build and are expensive to sustain. Their facilities - including laboratories, libraries and information and technology infrastructures - must be maintained to the highest international standards.

Research production in key areas - such as information technology and the life sciences - has become extremely important to national development agendas and for the prestige of individual institutions. Government support to university-based research has increased in recent years to order to encourage research in such fields as biotechnology and information science.

Intellectual property is a growing challenge in higher education but especially in research universities. Who owns knowledge? Who benefits from research? Universities, seeking to maximize revenues, want to protect intellectual property - research results that promise patents, licenses, and income. The topic often brings into focus the potential conflicts between those who produce research and knowledge and sponsors who may wish to control the knowledge and benefits that come from it. Sophisticated, university-based research is being conducted in an environment where there is pressure and need to commercialize knowledge, but at the same time opposing pressure exists to treat knowledge production and dissemination as a public good.

In China where the trend to fund university-based research is now more in line with the West. A number of other developing countries are pushing forward ambitious agendas to raise the amount and quality of their research activities. In the Republic of Korea, the Brain Korea 21 plan of 1998 promoted the principle of selection and concentration of research ef-



forts within the traditional top universities. In Latin America university based research continues to be concentrated in a few large-scale institutions. The Brazilian system awards some 10,000 PhDs and 30,000 MA degrees each year, a 300 % growth in ten years. Graduate programs are ranked in terms of their research productivity and financed accordingly.

In 2008, the Organization for Economic Cooperation and Development identified several key demographic trends for the period to 2030. Some of the key elements are:

- Student participation will continue to expand, as will higher education systems. Only a few countries will see a contraction in student numbers;
- Women will form the majority in student populations in most developed countries and will substantially expand their participation everywhere;
- The mix of the student population will become more varied, with greater numbers of international students, older students, part-time students, and other types;
- The social base in higher education will continue to broaden, along with uncertainty about how this will affect inequalities of educational opportunities between social groups;
- Attitudes and policies relating to access as well as the consciousness among disadvantaged groups will change and become more central to national debates;
- The academic profession will become more internationally oriented and mobile but will still be structured in accordance with national circumstances;
- The activities and roles of the academic profession will be more diversified and specialized and subject to varied employment contracts; and
- For many developing countries, the need for ever-expanding numbers of university teachers will mean that overall qualifications, now rather low, may not improve much, and current reliance on part-time staff in many countries may continue.

#### GLOBAL ECONOMIC CRISES AND HIGHER EDUCATION

In the midst of a profound economic crisis that started a couple years ago will have repercussions in society at large and within higher education in ways that are not yet clear. Many countries and universities will experience financial problems with serious consequences in the short and perhaps the medium term, although the impact will vary worldwide, with some countries less affected than others for example USA, UK, Australia, Japan, China and European countries are more affected by the global economic recession than many countries in Africa, India and others. Current estimates indicate that certain of the least developed countries will be most affected. The crisis is likely to have the following implications:

- **Research universities are likely to see significant constraints on their budgets** as governments will be unable to provide the resources needed for their continued improvement. In many cases, the priority will be to allocate funds to ensure that access to the higher education system is not dramatically cut. In countries where student loan programs exist, either in the public or private sectors, severe constraints on their availability to students may be implemented along with increased interest rates.
- The system will face pressure to establish or increase tuition fees for students.
- **Cost-cutting practices at many universities will result in a deterioration of quality.** More part-time faculty are likely to be hired, class sizes increased, and additional actions taken.

- "Freezes" on hiring, construction of new facilities, improving information technology, and purchasing books and journals are likely developments. No one knows how deep the crisis will become or how long it will last. However, most experts are doubtful of a quick recovery. Thus, it is likely that higher education is entering a period of significant cutbacks. There is no doubt that higher education is entering a period of crisis, unprecedented since World War II.

## GLOBAL UNIVERSITY RANKING AND UNIVERSITIES IN DEVELOPING COUNTRIES

The eroding dominance of North American universities was reflected in the top 100 where their number dropped from 42 in 2008 to 36 this year, as more Asian and European institutions climbed into the league table. There were 39 European universities in the top 100 this year, up from 36 in 2008 and 16 Asian institutions, up from 14 last year.

The Australian National University was again the highest ranked university from outside the US and UK. ANU was placed 17th on the table, one place lower than last year. It was followed by Canada's McGill University in 18th place with ETH Zurich the next highest non-US or UK institution at number 20. The highest placed Asian institution was the University of Tokyo at 22.

The top 50 institutions changed little. The newcomers were Tsinghua University in China and the University of Amsterdam - the highest ranked Dutch institution while Tsinghua was the highest-ranked mainland university although three Hong Kong institutions were above it. The University of Copenhagen, Peking University, New York University and Boston University dropped out of the top 50.

The University of Hong Kong was the highest ranked Chinese university at 24 and two other Hong Kong universities also made it into the top 50 - the Hong Kong University of Science and Technology, and the Chinese University of Hong Kong.

The 2009 Shanghai Jiao Tong ranking is due to be published early next month (November 2009). Last year's rankings placed eight US universities in the top 10 along with two UK institutions while the highest placed university not in the US or the UK was Tokyo in the 19th spot.

The annual *Times Higher Education-QS World University Rankings* The THE-QS rankings are based on the following categories:

- \* Academic peer review (9,386 academics participated this year).
- \* Employer review (3,281 employers responded this year).
- \* International faculty ratio.
- \* International student ratio.
- \* Student/faculty ratio.
- \* Citations per faculty.

The real story about Asian universities, however, concerns the lower reaches of the rankings. In September 2009, the European Union warned that India and China are likely to become the **world's leading research powers by 2025**. The World University Rankings suggest that these, and other Asian nations, are already building university systems to support this transition (Ince, 2009).

There is certainly a stark contrast between China's placing here and the very modest showing by India. No mainstream Indian universities appear in our top 200. As in 2008, India is represented by only two of the Indian Institutes of Technology. On the other hand, South Korea has had a recent spurt of high-technology growth which is reflected in the success of its universities in these rankings. Seoul National has long been a major world institution. It is joined this year by Yonsei, a major private university. Perhaps more importantly, two science and technology-based institutions in Korea, KAIST and Postech, have risen sharply in position this year. This is a common theme across Asia, with higher places for Tokyo Institute of Technology and Hong Kong University of Science and Technology (HKUST) (Ince, 2009).

### CHALLENGE FACING GLOBAL HIGHER EDUCATION

The enormous challenge facing global higher education in the next decade is the uneven distribution of human capital and funds, which will allow some nations to take full advantage of new opportunities while others drift further and further behind. This is one of several future trends predicted by a report for the UNESCO World Conference on Higher Education. It says accelerating change is presenting more complex problems with each passing decade.

The UNESCO commissioned Report 2009 says 'Talk and chalk' is far from adequate as we move further into the 21st Century. They concluded that, "Future Trends of higher education include: massification, rapid globalisation, impacts of technology, and movement of students and scholars, programmes and institutions across borders - will continue. The future will be shaped by shifting demographics, technological breakthroughs, and international political and economic forces. But it is possible to identify emerging trends" (Altbach, Reisberg and Rumbley, 2009).

The UNESCO report also revealed that "an expansion has not solved persistent social inequalities. Students from minorities, rural areas, older students and the disabled are under-represented. "Modern societies are increasingly concerned with greater access for these population groups."

It is now recognised that higher education has not become more inclusive or accessible if large **proportions of 'new' students fail**. In future, the authors point out, "institutions will be measured by their success at supporting students through to completion, not by simply getting more students through the door. This new perspective implies changes, and not only in how institutions measure success - reputations and budgetary allocations will also be affected.

The meaning of '**completion' has also changed**. Achievement has been measured by credits, academic performance and qualifications awarded. Now universities must be accountable for what and how students learn. There will be rising concern about the nexus of issues around achievement and learning.

Expansion higher education has continued at "a staggering rate" - from 51,160,000 tertiary students in 1980 to nearly 140 million in 2006: demand will continue to grow but will come from separate sectors in different countries (Altbach, Reisberg and Rumbley, 2009).

## **DIVERSIFICATION**

Mass enrolment created the need for diversified systems - hierarchies of institutions serving different needs and constituencies. In future the private sector will be an important aspect of diversification. It will continue to expand in many nations, because public institutions will not keep up with student demand. For instance, India, Pakistan, Malaysia have many such institutions at higher education. Some private institutions might emerge as semi-elite or elite research universities, but care must be taken to ensure that private, especially for-profit, institutions maintain standards and serve society. "New technologies and new providers have only just begun to diversify opportunities and this trend will certainly continue in the coming decades.

## **PRIVATISATION OF HIGHER EDUCATION**

The growth of private higher education worldwide has been one of the most remarkable developments of the past several decades. Today some 30% of global higher education enrolment is private. While private higher education has existed in many countries - and has traditionally been the dominant force in such East Asia countries as Japan, the Republic of Korea, and the Philippines - it has formed a small part of higher education in most countries. Now, private higher education institutions, many of them for-profit or quasi for-profit, represent the fastest-growing sector worldwide.

Countries with over 70% private enrolment include Indonesia, Japan, the Philippines and the Republic of Korea. The private sector now educates more than half the student population in such countries as Mexico, Brazil, and Chile. Private universities are rapidly expanding in Central and Eastern Europe and in the countries of the former Soviet Union, as well as in Africa. China and India have significant private sectors as well. The private sector is growing and garnering more attention in Africa. The Middle East and North Africa (MENA) are also registering private education enrolment, with 'American universities' dotting the horizon in Egypt, Jordan, Lebanon and elsewhere.

Public higher education has begun to 'privatise' and this will continue. Neo-liberal attitudes, limited public funding, increasing costs and the needs to meet expanded social expectations and build better management systems, among other things, will oblige public institutions to generate income from other sources including research, consulting and university-industry partnerships. This will have a greater impact on the nature of higher educational institutions in developing countries. Additionally, the 'commercialisation' of higher education has placed strain on its social mission. Many Developing Countries in Asia and Africa will be challenged to balance local needs and priorities with standards, practices and expectations articulated at the international level.

Tuition and other fees charged to students will increase and become more exorbitant worldwide. One of the many challenges ahead will be to ascertain that cost does not become a barrier to access when students have the intellectual capacity to study but not the private financial means.

In general, the private sector is "demand absorbing", offering access to students who might not be qualified for the public institutions or who cannot be accommodated in other universities because of overcrowding. While some selective private universities exist, in general the private sector serves a mass clientele and is not seen as prestigious. Legally for-profit institutions constitute a small higher education sub-sector but there is notable growth

in all developing regions. The sector is run mostly on a business model, with power and authority concentrated in boards and chief executives, faculty hold little authority or influence and students are seen as consumers.

A related trend is the privatization of public universities. Countries such as Australia and China have been explicit in asking universities to earn more of their operating expenses by generating their own revenue. Besides tuition fees, public universities see income from research funds, income from the sale of university-related products, consulting and research services and university-industry linkages. In some cases, such financial sources contribute to the commercialization of the institution and conflicts with the traditional roles of the university.

### INFORMATION AND COMMUNICATION TECHNOLOGIES

It has become an established fact that the traditional university will be rendered obsolete by information technology, distance education, and other technology-induced innovation. The demise of the traditional university will not take place any time in the coming few decades. There has been a profound and pervasive disconnect between employing new ICTs and leveraging them to enhance quality. But major change is taking place, and it is one of the key parts of the academic transformation of the 21<sup>st</sup> century.

The Internet has truly revolutionized how knowledge is communicated. In the world's most developed economies, the presence of ICTs has expanded exponentially and touched virtually all dimensions of the higher education enterprise. E-mail and online social networking spaces provide avenues for academic collaboration and joint research. Electronic journals have become widespread and in some fields quite substantive. Traditional publishers of books and journals have increasingly turned to the Internet to distribute their publications. The open educational resources movement has picked up significant momentum, providing free access to courses, curricula and pedagogical approaches not available locally. Examining the deeper implications of this trend reveals that it has exacerbated the division between "haves" and "have-nots". In many developing countries new technologies are often considered the key for increasing access to higher education. Yet there are enormous costs and difficulties embedded in the reliance on ICTs in terms of hardware, software, technical support, training and continual upgrades. Some parts of the world, particularly Africa, remain relatively underserved by high-speed Internet access. The world's poorest 48 countries are increasingly left behind as information production and dissemination move down technological pathways to which they have limited or no access.

Distance education represents an area of enormous potential for higher education systems around the world struggling to meet the needs of growing and changing student populations. The distance learning landscape has been transformed by ICTs, allowing for real growth in numbers and types of providers, curriculum developers, modes of delivery and pedagogical innovations.

For several decades the sector has been dominated by large-scale 'open' universities (Indira Gandhi National Open University in India counts 1.8 million students). The University of South Africa (UNISA) claims to be the continent's premier distance learning institutions with approximately 250,000 students. The African Virtual University works across borders and language groups in over 27 countries. Much of the appeal of distance education is attributed to its ability to accommodate the needs of a wide variety of learners (students located far from educational centres, employed adults, women who are attempting

to balance family and school commitments) and even the incarcerated. Risks and challenges accompany this mode of education delivery, the most difficult challenge relates to quality assurance.

As seen earlier that the profound impacts of information and communications technology (ICT) on higher education worldwide are already being seen in, for instance, the rapid communication of knowledge and expansion of distance education, and electronic publication of journals and books. Teaching and learning will be transformed within universities and through distance education. ICTs will probably not dramatically **improve access, as people with limited resources in developing nations** are likely to remain distant from necessary infrastructure and equipment for some time.

New growth will be in the developing world - especially in China and India. Developed countries appear to have largely achieved universal access and some - Japan, the Republic of Korea and Finland - have enrolment ratios nearing 80%. Mass higher education has opened access to previously excluded populations, and gender inequality has been erased in most countries.

### CONCLUSION

Higher education has become larger and more central to society and individuals; hence, there must be a need to develop professional management and leadership in developing countries. Training, think tanks and policy forums are emerging, and institutions and systems are collecting data about themselves for use in policy-making and improvement.

Unstoppable globalisation will oblige institutions to rethink traditional degree programmes and past pedagogies, so as to prepare increasingly diverse student cohorts for a borderless economy.

Quality assurance will continue to be a high priority. The trend, driven by international mobility of students and scholars, is towards internationally-referenced standards and mutual recognition.

The role of higher education as a public good continues to be fundamentally important and must be supported. The multiple and diverse responsibilities of higher education are ultimately key to the well-being of modern society, but this expanded role adds considerable complexity and many new challenges. Understanding the broader role of higher education in a globalized world is the first step to dealing constructively with the challenges that will inevitably loom on the horizon. The enormous challenge ahead is the uneven distribution of human capital and funds that will allow some nations to take full advantage of new opportunities while other nations risk drifting further behind.

The higher education enterprise should provide strong, vibrant postsecondary institutions to support the knowledge economy as well as to provide the knowledge necessary for the social mobility and economic progress essential to societies across the globe.

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