

PROCEEDINGS OF ESRUC

1st Eurasian Silk Road Universities Convention (ESRUC)

"New Approaches and Collaborations in Higher Education"



May 28-31, 2010 • Erzurum/TURKEY

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Collaborations in Higher Education”





1st Eurasian Silk Road
Universities Convention
(ESRUC)

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1st Eurasian Silk Road
Universities Convention
(ESRUC)

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Prof. Dr. Hikmet KOÇAK
President of Atatürk University



Foreword

The 1st Eurasian Silk Road Universities Convention was held on May 28-30, 2010 with the attendance of 90 Presidents/Rectors, Vice Rectors and representatives of private and state universities of 18 various countries together with the 17 Turkish universities. The invited Presidents/Rectors submitted many articles during the convention, which introduced their universities and the potentials that they own. Specifications of importance were established in terms of the positions of private and state universities all over the world.

Atatürk University has a crucial mission due to the purpose of its foundation and historical background and has rotated itself to Caucasia, Balkans, Far East and the Middle East. This convention is a part of the same mission. Numerous people of intellect from 17 various countries and Turkey revived the historical Silk Road by coming together under the roof of Atatürk University. We achieved it together. The responsibility to reorganize the "Eurasian Silk Road Universities Convention", which we regarded as an anticipated convention with immense participation was undertaken by us.

Our intension during this convension was to provide and share the academic assets that Atatürk University owns along with discussing the field of higher education with the purpose of contributing to the future of the world's higher education system and bringing it to the expected level.

Today, in which global growth makes collaboration a must in higher education, we have the determination to carry out this convention, which was held with many justifications, such as creating awareness and following the latest developments.

I would like to thank and put forward my warmest regards on behalf of Atatürk University and myself to all governmental institutions, who provided all their support and help, to those who attended the convention with their own initiative, academics who attended with their articles, the staff of Atatürk University, the respected representatives of the press and all the contributors of the Eurasian Silk Road Universities Convention. This convention also served as a means to which the history, culture and heritage of Erzurum were introduced, but mainly, Atatürk University was introduced to the world. Collaborations and a strong relationship with world universities were aimed, bilateral agreements were signed, projects were prepared and an important step for Atatürk University becoming an international university was taken.

Prof. Dr. Hikmet KOÇAK
President of Atatürk University



**ATATÜRK
UNIVERSITY**

**1st Eurasian Silk Road
Universities Convention
(ESRUC)**

"New Approaches and Collaborations in Higher Education"

1. Avrasya İpek Yolu Üniversiteleri Toplantısı

"Yükseköğretimde Yeni Yaklaşımlar ve İşbirliği Arayışları"



1st Eurasian Silk Road Universities Convention (ESRUC) Delegation

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CONVENTION PROGRAMME

1st Eurasian Silk Road Universities Convention (ESRUC)
“New Approaches and Collaborations in Higher Education”
1. Avrasya İpek Yolu Üniversiteleri Toplantısı
“Yükseköğretimde Yeni Yaklaşımlar ve İşbirliği Arayışları”

PROGRAMME

**Place : Atatürk University Culture and Exhibition Center/
 Atatürk Üniversitesi Kültür ve Gösteri Merkezi
 28-31 May/Mayıs 2010, Erzurum/TÜRKİYE**

Thursday, May 27 2010	
20.00-22.00	Gala Dinner (Guest House 1)
Friday, May 28 2010	
07.00-09.30	Breakfast
10.00-12.00	Tour to Mount Palandöken (Panoramic View with Gondolas)
13.00-14.00	Lunch (Guest House 2)
14.00-14.30	Registration and Opening of “Updated Images” Exhibition
14.30-15.00	Music Recital by Assoc. Prof. Naile TAĞIKIZI MİRZAZADE and Assoc. Prof. H. Hagigat MUHARREMOVA
15.00-15.10	Introducing the participants
15.10-16.00	Opening Speeches <ul style="list-style-type: none"> - Prof.Dr. Hikmet KOÇAK <i>President of Atatürk University</i> - Prof.Dr. Yusuf Ziya ÖZCAN <i>President of the Council of Higher Education</i> - Prof.Dr. Recep AKDAĞ <i>Minister of Health</i> - Hayati YAZICI <i>Minister of State</i>
16.00-17.00	Tree planting at 2011 Universiade Thematic Garden
17.00-17.30	Visit to the Art and Exhibition Gallery of Erzurum 1 st International Paint Symposium
17.30-19.30	Barbeque at Fish Farm - Faculty of Agriculture
20.00-21.00	Bindallı and Folk Dance Performances at Auditorium
21.00-22.30	Therapy in Ilca Spa and Wellness Thermal Springs
Saturday, May 29 2010	
07.00-09.00	Breakfast
First plenary session: Invited speakers Chairs: Prof.Dr. Ramazan KORKMAZ/President of Ardahan University-Türkiye Prof.Dr. Cafer ÖZKUL/Rector of Rouen University-France	
09.30-09.50	Prof.Dr. M. Arif ADLI, Vice-President <i>TUBİTAK (The Scientific & Technological Research Council of Turkey)</i> “TUBİTAK and R&D” “TÜBİTAK ve AR-GE”

09.50-10.10	Prof.Dr. Mukhtar AHMED, Member <i>Higher Education Commission, Pakistan</i> "Academic Collaboration: Creating Synergy in Higher Education Sector" "Akademik İşbirliği : Yükseköğretimde Sinerji Oluşturmak"
10.10-10.30	Prof. Alessandro MARTIN, Pro-Rector <i>University of Padua, Italy</i> "New Approaches and Collaborations at the University of Padua" "Padova Üniversitesi'nde Yeni Yaklaşımlar ve İşbirliği Araştırmaları"
10.30-10.50	Prof.Ferhad RAHBER, President <i>University of Tehran, Iran</i> "University and Human Resources : Engine of Sustainable Development" "Üniversite ve İnsan Kaynakları: Sürdürülebilir Kalkınmanın Motoru"
10.50-11.10	Prof.Dr. Jafar JAFAROV, Rector <i>Tourism Institute of Azerbaijan, Azerbaijan</i> "Higher Education and Bologna Process in Azerbaijan" "Azərbaycanda Ali Təhsil və Bolonya Süreci"
11.10-11.30	Presentment of Plaquettes and Coffee Break
Second plenary session: Invited speakers	
Chairs: Prof.Dr. Mahmut DOĞRU/President of Bitlis Eren University-Türkiye Prof.Dr. M. Niyazi ERUSLU/President of Yalova University-Türkiye	
11.30-11.50	Prof.Dr. Pirzada Qusam Raza SIDDIQUI, Vice-Chancellor <i>University of Karachi, Pakistan</i>
11.50-12.10	Prof.Tina GELASHVILI, Rector <i>Akhaltseke State Education University, Georgia</i> "University Quality Assurance" "Üniversite Kalite Güvencesi"
12.10-12.30	Prof.Dr. Md. Abdul AZIZ, Vice-Chancellor <i>University of Information Technology and Sciences, Bangladesh</i>
12.30-12.40	Presentment of Plaquettes
12.40-14.00	Lunch by Erzurum Metropolitan Municipality
Third plenary session: Invited speakers	
Chairs: Prof.Dr. Abamüslüm GÜVEN/President of Kırıkkale University-Türkiye Prof.Dr. Kazbek ALDAMZHAROVA/Rector of Academy of Civil Aviation- Kazakhistan	
14.00-14.20	Prof.Dr. Muhammad Masoom YASINZAI, Vice-Chancellor <i>Quaid-I Azam University, Pakistan</i> "Higher Education Reforms : A Perspective from a Developing Country" "Gelişmekte Olan Bir Ülkenin Bakış Açısından Yükseköğretim Reformları"
14.20-14.40	Prof.Ahmet Çetin CAN, Rector <i>International Black Sea University, Georgia</i> "The Effect of International Black Sea University to the Relationship of Georgia and Turkey" "Uluslararası Karadeniz Üniversitesi'nin Gürcistan ve Türkiye İlişkilerine Etkisi"
14.40-15.00	Prof.Dr. Ahmet ŞANIÇ, Rector <i>Azerbaijan Qafqaz University- Azerbaijan</i> "The Higher Education Reforms by Bologna Process" "Bolonya Sisteminin Yüksek Öğretime Getirdiği Yenilikler"
15.00-15.30	Presentment of Plaquettes and Coffee Break
Fourth plenary session: Invited speakers	
Chairs: Prof.Dr. İ. Hakkı YILMAZ/President of Iğdır University-Türkiye Prof.Dr. Almazbek AKMATALIEV/Rector of Academy of Governance- Kyrgyzstan	
15.30-15.50	Prof. Irine DARCHIA, Vice-Rector <i>Tbilisi State University, Georgia</i> "Innovative Education and Perspectives of International Collaboration at Ivane Javakhişvili Tbilisi State University" "İvane Javakhişvili Tbilisi Devlet Üniversitesinde Yenilikçi Eğitim ve Perspektifler"
15.50-16.10	Open Discussion for University Rectors/Presidents or Representatives
16.10-16.20	Presentment of Plaquettes
16.20-19.00	City Tour
20.00-22.00	Dinner by MUSIAD

Sunday, May 30 2010	
07.00-09.30	Breakfast
First session: Oral presentations	
Chairs: Prof.Dr. Enver DURAN/President of Trakya University-Türkiye Prof.Dr. Muhammad Masoom YASINZAI/Rector of Qadiri-J Azam University-Pakistan	
10.00-10.15	Prof.Dr. İbrahim ÖZDEMİR, Rector Gazikour University, Turkey "New Dynamics and Trends within Higher Education in the 21 st Century" "21. Yüzyılda Yüksek Öğretimde Yeni Dinamikler ve Eğilimler"
10.15-10.30	Prof.Dr.Nihal SHAKER, Dean Al-Azhar University, Egypt "Collaborative Learning in Higher Education" "Yükseköğretimde İşbirlikçi Öğrenim"
10.30-10.45	Hayati YILDIRIM Kocaeli University, Turkey "How Accountability Politics Relate with the Quality Assurance in Higher Education" "Yükseköğretimde Kalite Güvencesiyle Sorumluluk Politikasının İlişkisi"
10.45-11.00	Presentment of Plaquettes and Coffee Break
Second session: Oral presentations	
Chairs: Prof.Dr. Ahmet SANIÇ/Rector of Azerbaijan Qafqaz University- Azerbaijan Prof.Dr. A. Faris ISMAIL/Deputy Rector of International Islamic University- Malaysia	
11.00-11.15	Prof. Fouad Kasım MOHAMMAD, Dean University of Mosul, Iraq "University Collaborations Addressing Community Services" "Yapılan Hizmetlerin Hitaben Üniversite İşbirlikleri"
11.15-11.30	Mr. Kairat ZHUNIS, Head Office on Foreign Experts and Students Affairs Al-Farabi Kazakh National University, Kazakhstan "Building a Global Center of Educational Excellence: The Case of Kazakh National University" "Eğitimsel Mükemmellik için Küresel Bir Merkez Oluşturulması: Kazak Milli Üniversitesi Örneği"
11.30-11.50	Open Discussion for University Rectors/Presidents or Representatives
11.50-12.00	Presentment of Plaquettes
12.00-14.00	Lunch by ETSO
Fifth plenary session: Invited speakers	
Chairs: Prof.Dr. Hayri COSKUN/President of Abant İzzet Baysal University-Türkiye Prof.Dr. Hamed Mohamed AKLAN/Rector of University of Suleymaniyah Technology- Yemen	
14.00-14.20	Prof.Dr. Cafer ÖZKUL, Rector University of Rouen, France "French Higher Education: New Developments with respect to the Bologna Process and New Reforms for a More Effective Cooperation between Universities." "Fransız Yükseköğretimini: Üniversiteler Arasında Daha Etkili Bir İşbirliği İçin Bologna Süreci ve Yeni Reformlarla İlgili Yeni Gelişmeler"
14.20-14.40	Professor Hasan KAPLAN, Rector Epoka University, Albania "Expectations From Today's Universities" "Bugünün Üniversitelerinden Beklentiler"
14.40-15.00	Prof.Dr.Ahmad Faris ISMAIL, Deputy Rector International Islamic University, Malaysia "New Initiatives to Enhance Research and Innovation Collaborations at International Islamic University Malaysia" "Uluslararası Malaysia İslam Üniversitelerinde Araştırma ve Yenilikçi İşbirliklerini Geliştirmek İçin Yeni Girişimler"
15.00-15.30	Presentment of Plaquettes and Coffee Break

Third session: Oral presentations Chairs: Prof.Dr. Ekrem YILDEZ/ <i>President of Karabük University</i> Prof.Dr. Pirzada Qasim Raza SIDDIQUI/ <i>Vice-Chancellor, University of Karachi- Pakistan</i>	
15.30-15.45	Prof. Dr. Arben VERCUNI, <i>Vice Rector</i> <i>Agricultural University of Tirana, Albania</i>
15.45-16.00	Dr. Derya TELLAN <i>Atatürk University, Turkey</i> "Benchmarking the Educational Technology Strategies in Higher Education" "Yükseköğretimde Eğitimsel Teknoloji Stratejilerinin Karşılaştırılması"
16.00-16.15	Ali Çağlar GÜLLÜCE <i>Atatürk University, Turkey</i> "Good Governance in Higher Education" "Yükseköğretimde İyi Yönetişim"
16.15-16.30	Dr. Selçuk KARAMAN <i>Atatürk University, Turkey</i> "International Collaboration Opportunities through E-Learning : Practices at Atatürk University" "E-Öğrenme Yoluyla Uluslararası İşbirliği Fırsatları : Atatürk Üniversitesinde Uygulamalar"
16.30-16.45	Coffee Break
16.45-17.45	Final Discussion and Evaluation (Panel) <ul style="list-style-type: none"> - Prof.Dr. Salih HOŞOĞLU, <i>President of Ishik University, Iraq</i> - Prof.Dr. Md. Abdul AZIZ, <i>Vice-Chancellor</i> <i>University of Information Technology and Sciences, Bangladesh</i> - Prof.Dr. Cafer ÖZKUL <i>Rector, University of Rouen, France</i> - Prof.Dr. Pirzada Qasim Raza SIDDIQUI <i>Vice-Chancellor, University of Karachi, Pakistan</i> - Prof.Dr. Kemalettin ÖZDEMİR <i>Rector of International Burch University, Bosnia Herzegovina</i> - Prof.Dr. Hameed Mohamed AKLAN <i>Rector of University of Science & Technology- Yemen</i> - Prof.Dr. Sebahattin TÜZEMEN <i>Vice-President of Atatürk University</i>
17.45-17.55	Presentment of Plaquettes
19.30-21.30	Dinner by Erzurum Governorship

Monday, May 31 2010

07.00-08.45	Breakfast
09.00	Excursion (Tortum Waterfall)

PROCEEDINGS

MAY 29, 2010 SATURDAY

Prof.Dr. Arif ADLI
Vice-President, TUBITAK



Research and Development in TÜBİTAK

Introduction

The Scientific and Technological Research Council of Turkey (TÜBİTAK) is the leading agency for management, funding and conduct of research in Turkey. It was established in 1963 with a mission to advance science and technology, conduct research and support Turkish researchers. Setting its vision as to be an innovative, guiding, participating and cooperating institution in the fields of science and technology, which serves for improvement of the life standards of our society and sustainable development of our country, TÜBİTAK not only supports innovation, academic and industrial R&D studies but also, in line with national priorities, develops scientific and technological policies and manages R&D institutes, carrying on research, technology and development studies. The main functions of TÜBİTAK are to;

- develop Science, Technology and Innovation (STI) policies,
- fund R&D,
- perform R&D,
- coordinate Turkey's international STI relations

1. ST and Innovation Indicators for Turkey



Figure 1. R&D Expenditures for Turkey

Increase in the direct public funds for R&D and innovation boosted innovative activity in the country and this resulted in capacity development in all sectors.

Table 1. GERD by Sector of Performance from 2002 to 2008

Performing Sector	2002 (%)	2008 (%)
Academia	64	43.8
Industry	29	44.2
Public Institutions	9	12.0

On the R&D human resource side, the progress is also pleasing. As of 2008, the number of full-time equivalent R&D personnel reached to 67.000 and the number of full-time equivalent researchers reached to 53.000.

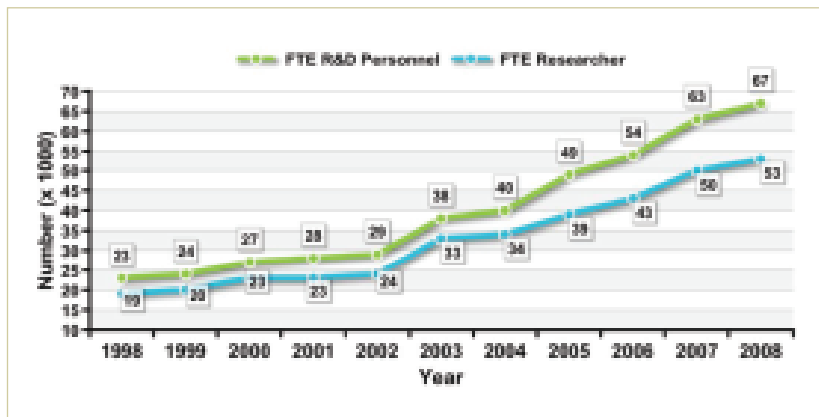


Figure 2. The Number of FTE R&D Personnel and FTE Researchers

Two major targets for the year 2013 were set:

1. To increase Gross Expenditure on Research and Development (GERD) to 2% of the Gross Domestic Product (GDP) by 2013,
2. To raise the number of full-time equivalent R&D personnel up to 150,000 by 2013.

Regarding Scientific Publications, Turkey is one of the few countries in the world that has a dramatic increase in the number of scientific publications. As of 2008, almost 90% increase was observed in the number of publications compared to 2002.

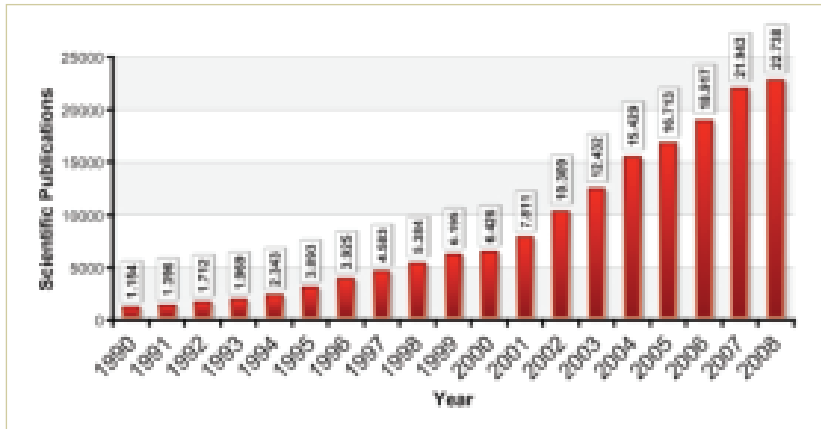


Figure 3. Number of Scientific Publications from Turkey

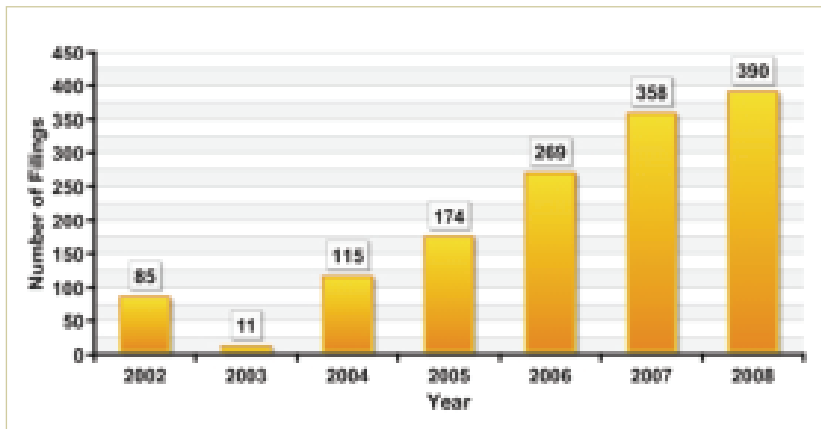


Figure 4. Patent Applications from Turkey within the Framework of Patent Cooperation Treaty (PCT)

Moreover, the number of domestic patent filings increased 5.4 fold from 2002 to 2008.

2. Funding Mechanisms and Human Resources Management in

TÜBİTAK

2.1. Academic Research Supports

TÜBİTAK funds and develops support programmes for academic R&D projects that will foster cooperation among universities, industry and the public sector under “Academic Research Funding Programmes Directorate” (ARDEB) with a widely scale fields from defence and security technologies to social sciences, engineering to agriculture and forestry. The programmes are run under Research Grant Committees (RGCs). Research Grant Committees evaluate, fund and monitor national and international research projects in the areas of:

- Basic Sciences
- Health Sciences
- Electrical, Electronics and Informatics
- Engineering
- Environment, Atmosphere, Earth and Marine Sciences
- Agriculture, Forestry and Veterinary
- Social Sciences and Humanities
- Defence and Security Technologies
- Space Research

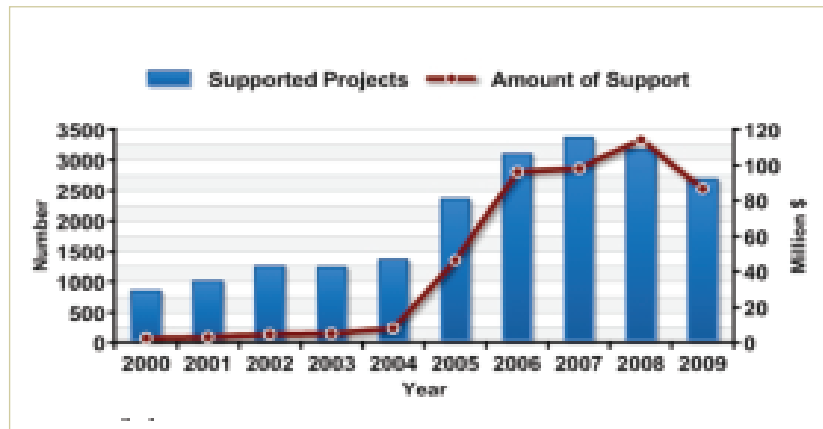


Figure 5. TÜBİTAK's Supports for Academic Research (Funding for the public and defense projects excluded)

Between 2003 and 2009, the number of supported projects and the total expenditure increased approximately 10 times (funding for the public and defence projects are not included). The distribution of project proposals with respect to scientific areas between 2000 and 2009 has shown that Engineering Sciences are the most popular research field followed by Agriculture and Basic Sciences.

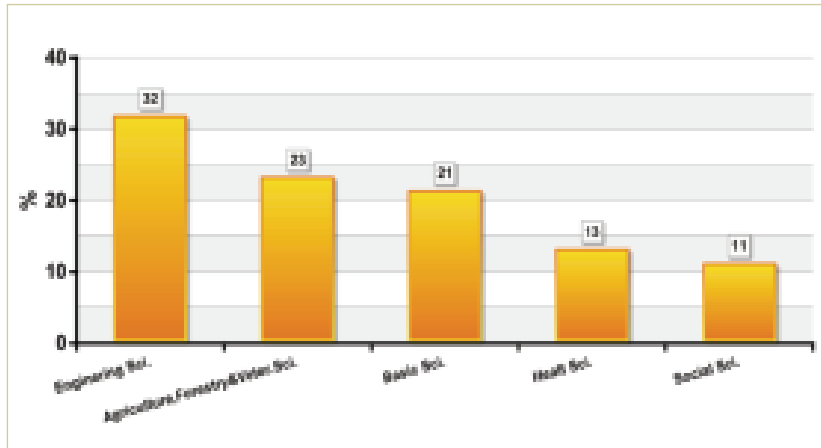


Figure 6. Science Field Distribution of Academic R&D Supports from 2000 to 2009

The RGCs provide funds to researchers by the following support programmes:

- The Support Programme for Scientific and Technological Research Projects
- Short-Term R&D Funding Program
- Support Programme for Research Projects of Public Institutions
- Patent Application Promotion and Support Program
- Global Researcher Programme
- The Support Programme for Participation in International Scientific Research Projects
- The Support Programme for the Initiative to Build Scientific and Technological Cooperation Networks and Platforms
- National Young Researchers' Career Development Program (Career Program)

2.2 Industrial R&D Supports

Technology and Innovation Grant Programme Directorate (TEYDEB) encourages innovative research and technology development activities of private companies established in Turkey. TEYDEB's mission is to increase the global competitiveness of Turkish private companies in research, technology development and innovation capabilities and play a leading role in the creation of an entrepreneurship culture to improve prosperity of the country.

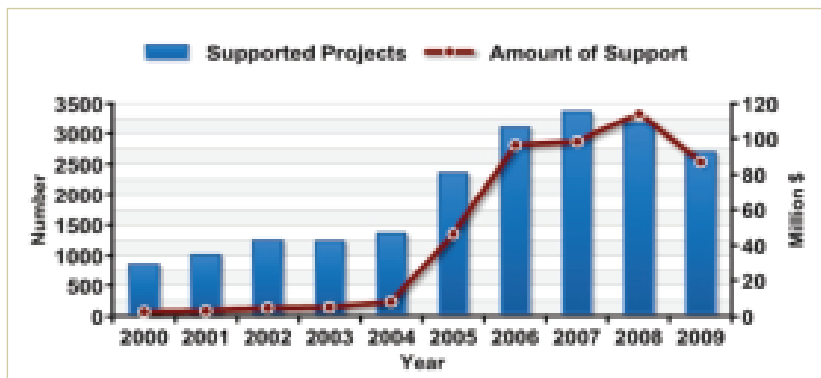


Figure 7. TÜBİTAK Industrial Technology and Innovation Grants (25% of the grants provided by the Undersecretariat of Foreign Trade)

The project proposals submitted to TEYDEB are evaluated, approved and monitored by five technology groups with a nearly 200 Million US \$ budget. These technology groups are:

Machinery & Manufacturing,
 Electrical & Electronics,
 Materials, Metallurgical & Chemistry,
 Biotechnology, Agricultural, Environmental & Food and
 Information Technologies.

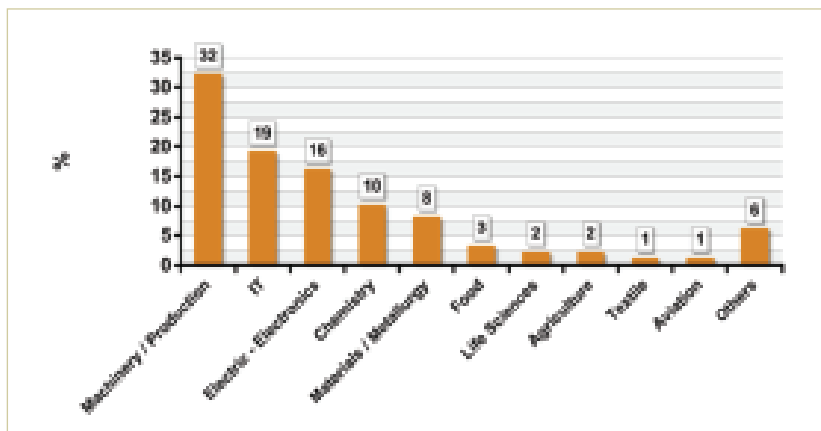


Figure 8. Technology field distribution of cumulative project proposals between 1995 and 2009

Between 2000 and 2009, the number of project proposals submitted to private industry funding schemes has increased 7 times and the amount of grants awarded has increased more than 10 times. TÜBİTAK has provided 266.4 million \$ for 1892 ongoing projects in 2009.

2.3 Supports for Grants and Fellowships

TÜBİTAK provides funding for human resources development in research to create opportunities for the improvement and development of the capacities of scientists. The grants and fellowships to reward outstanding success and activities at both undergraduate and graduate level are given by Science Fellowships and Grant Programmes Department - (BİDEB).

Furthermore, BİDEB provides following grants and scholarship within the framework of bilateral agreements to promote international mobility of researchers;

- PhD Fellowship Program for Foreigners
- Research Fellowship Program for Foreigners
- Visiting Scientists Fellowship Program

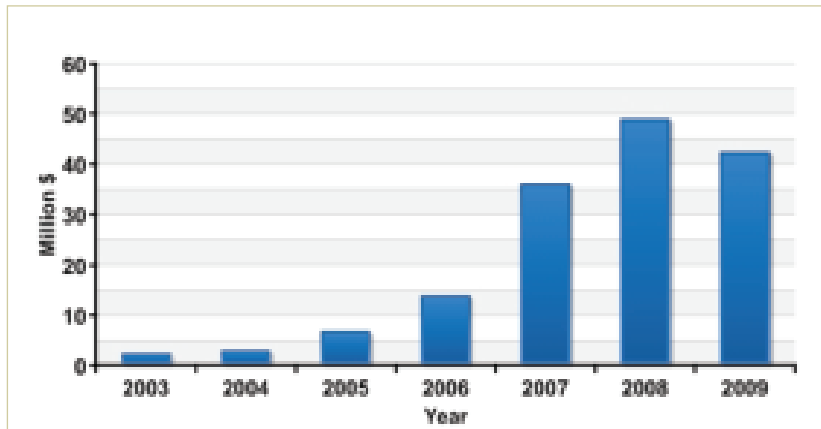


Figure 9. TÜBİTAK's Supports for Grants and Scholarships

In accordance with the needs of Turkey, variety of grant schemes, beneficiaries and the amount of the grants have substantially increased by years. The budget of granted scholarships increased nearly 14 times to 42.2 Million in 2009. Besides, the overall number of the people granted was realized as 8.209 in 2009.

3. In- House Research at TÜBİTAK

Performing research activities are among the tasks of TÜBİTAK commenced with the establishment of the institutes, centres and units. TÜBİTAK Research Institutes are publicly funded legal entities, striving to increase their total income through public-private collaborations; especially in the form of partnerships with industry. TÜBİTAK's R&D institutes are grouped as R&D Units and R&D Support Units according to their functions.

3.1 R&D Performing Units:

Marmara Research Centre (TÜBİTAK MAM): It is the largest research centre in Turkey, leading S&T and conducting R&D projects under 6 different research institutes, which are;

- Food Institute
- Energy Institute
- Earth and Marine Sciences Institute
- Chemistry Institute
- Genetic Engineering and BioTechnology Institute
- Materials Institute

National Research Institute of Electronics and Cryptology (TÜBİTAK UEKAE)

Established in Ankara in 1968 as the Electronic Research Unit and based in TÜBİTAK MAM campus in Gebze since 1972. TÜBİTAK UEKAE aims to produce and implement the fields of information security, communications and provide advanced electronics scientific and technological solutions with its highly qualified staff and internationally acknowledged infrastructure in order to ensure and sustain Turkey's technological independence, and to increase the country's competitive power.

Defence Industries Research and Development Institute (TÜBİTAK SAGE)

Established in 1973, the mission of TÜBİTAK SAGE is “to provide high-value-added, original products and services that are competitive in the international market through R&D by taking on challenging and ambitious tasks in the defence industry in order to be able to meet Turkey’s requirements on the bases of know-how, technology and national resources, and to reduce foreign dependency.”

Space Technologies Research Institute (TÜBİTAK UZAY)

Dating back to 1984 under different names, the Space Technologies Research Institute defines its mission as “producing the know-how and technology to transform the technological base of the country’s industry in the fields of space technologies, information technologies and electronic research, to guide the sector and to raise the public awareness about the field.”

National Metrology Institute (TÜBİTAK UME)

Established in 1992, the mission of TÜBİTAK UME is to ensure measurement uniformity and reliability and thus contribute to improved quality of life for the nation and enhanced competitive power for the country, and to form, develop, maintain and disseminate reference measurement standards and techniques recognised internationally.

Research Institute for Basic Sciences (TÜBİTAK TBAE)

The mission of TÜBİTAK TBAE is “to produce knowledge through nationally and internationally acknowledged original research in basic sciences, particularly in theoretical physics and mathematics, with the participation and cooperation of all stakeholders, in line with common principles, goals, targets and national priorities, and to support, assist and mediate the performing of such studies.”

Turkish Institute for Industrial Management (TÜBİTAK TÜSSİDE)

Established in 1971, TÜSSİDE is a financially and administratively autonomous organisation managed jointly by TÜBİTAK and the Ministry of Education. The mission of TÜBİTAK TÜSSİDE is “employing knowledge and technology based approaches and effective methods to provide training, consultancy, research and publishing services to public or private institutions to equip them with advanced management methods and approaches.”

3.2 R&D Support Units:

National Academic Network and Information Centre (TÜBİTAK ULAKBİM)

Established in 1996, with the mission of “establishing and operating information and documentation networks for research and training purposes among universities and research institutions, ensuring the connection of such networks to others at home and abroad, providing information technology support to stimulate production of information, offering academic information and documentation services to facilitate the production of scientific knowledge in the country over networks and traditional channels, and to develop information products that will reflect the nation’s accumulation of knowledge.”

TÜBİTAK National Observatory (TÜBİTAK TUG)

Established in 1997 on the top of Mount Bakırlitepe, (2500 m above sea level), Antalya overlooking the Mediterranean resort city of Antalya, the mission of TUG is “to bring the telescopes and other equipment of the observatory up to international level, to encourage and guide contemporary research in astronomy and space sciences to be conducted at the observatory and to cooperate with the national and international partners, to identify priority research areas, and to provide observation and research facilities of international standards and levels to contemporary, relevant and priority research in our universities.”

Test and Analysis Laboratories (TÜBİTAK ATAL, TÜBİTAK BUTAL)

The common mission of the Ankara Test and Analysis Laboratory set up in 1995 and the Bursa Test and Analysis Laboratory (2001) is to employ efficient methods based on science and technology to provide accurate and repeatable tests and analyses, consultancy, training and related R&D services, and to lead the way in building the infrastructure incorporating the required knowledge, experience and equipment.

4. International Cooperation

TÜBİTAK represents the country in almost all international scientific and technological affairs to develop, implement and support policy proposals, programmes and projects for international collaborations to help the country attain enhanced and sustained STI capabilities in line with its national priorities and foreign policy via “International Cooperation Department” (UIDB). TÜBİTAK has also been assigned officially by the Turkish Government as the contact organisation for the EU Framework Programmes at the beginning of 2003.

By the end of 2008, an ad-hoc committee was established to take immediate action on the issues that act as barriers for international researcher to come to Turkey and make research. The short-list of action areas of the committee includes the following:

- Getting a working and residence permit (including the family members)
- Academic career conditions
- Education opportunities for children
- Social security and retirement

The International Cooperation Department carries out its functions through the Bilateral and Multilateral Relations Division and the European Union Framework Programmes Division.

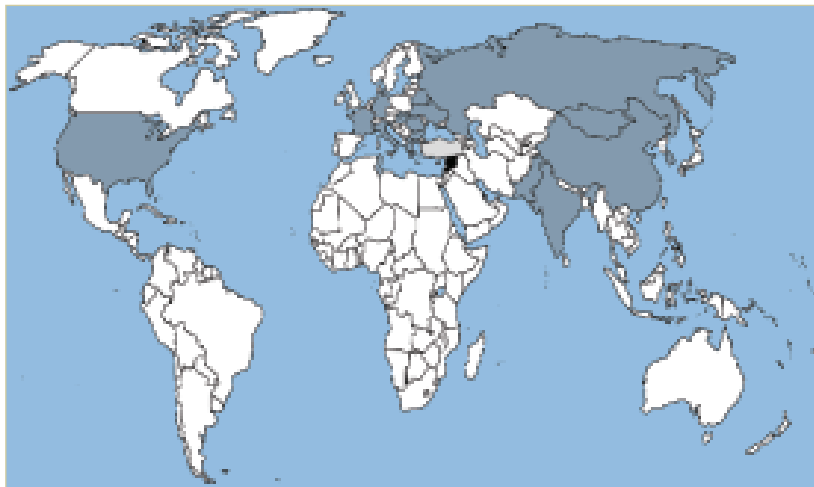


Figure 10. The Countries with which TÜBİTAK has Bilateral Agreements Based on Joint Projects

The list of institutions in countries that support joint projects within the framework of bilateral agreements with TÜBİTAK is as follows:

Belarus/National Academy of Sciences of Belarus
Bulgaria/Bulgarian Academy of Sciences
France/Ministry of Foreign Affairs
France/CNRS (Centre National de la Recherche Scientifique)
Germany/DFG (German Research Foundation)
Germany/BMBF (Federal Ministry of Education and Research of Germany)
Greece/GSRT (General Secretariat for Research and Technology)
Hungary/NKTH (National Research and Technology Office)
Italy/CNR (Consiglio Nazionale delle Ricerche)
Italy/Ministry of Foreign Affairs of Italy
Mongolia/Academy of Sciences
Pakistan/Ministry of Science and Technology
Romania/ANSC (National Authority for Scientific Research)
Russian Federation/(RFBR) Russian Foundation for Basic Research
Slovakia/Slovak Academy of Sciences
Slovenia/ Ministry of Higher Education, Science and Technology
South Korea/KRF (Korea Research Foundation)
Syria/Ministry of Higher Education
Tunisia/Ministry of Higher Education, Scientific Research and Technology
Ukraine/NASU (Academy of Sciences) Ministry of Education and Science
USA/NSF (National Science Foundation)

The list of institutions within the framework of Multilateral Cooperation (Cooperation with the Regional and International Organisations) is as follows:

➤ **GLOBAL ORGANIZATIONS**

- **OECD** (Organization for Economic Cooperation and Development)
- **NATO** (North Atlantic Treaty Organization)
- **UN** (United Nations)
- **ICSU** (International Council For Science)
- **ICGEB** (International Center for Genetic Engineering and Biotechnology)
- **ECO** (Economic Cooperation Organization)
- **IEA** (International Energy Agency)

➤ **EUROPEAN ORGANIZATIONS**

- **EU Framework Programmes** (European Union Framework Programmes)
- **ESA** (European Space Agency)
- **COST** (European Cooperation in Science and Technology)
- **ESF** (European Science Foundation)
- **EuroHORCS** (European Heads of Research Councils)
- **EMBC** (European Molecular Biology Conference)

➤ **REGIONAL ORGANIZATIONS**

- **BSEC** (Black Sea Economic Cooperation Organization)
- **OIC** (Organization for the Islamic Conference)

Prof. Dr. Mukhtar Ahmed
 Member (Operations & Planning)
 Higher Education Commission, Islamabad, Pakistan



Academic Collaboration: Creating Synergy in Higher Education Sector

Abstract

It is a fact that we live in a global community and in an inter-dependent world. There might be a country endowed with enormous resources, but the fact cannot be denied that the interdependence on peer countries cannot be ruled out at any stage. The forces that directly affect us are shaped by events beyond control; and the role of academic collaboration between higher learning institutions cannot be overemphasized.

Higher Education Commission, Pakistan is sensitive to the importance of global partnerships and academic collaboration, and takes the onus by playing pivotal role in guiding higher learning institutions. These higher learning institutions, in turn, play a critical role in establishing linkages and harnessing mutual benefits with an international perspective.

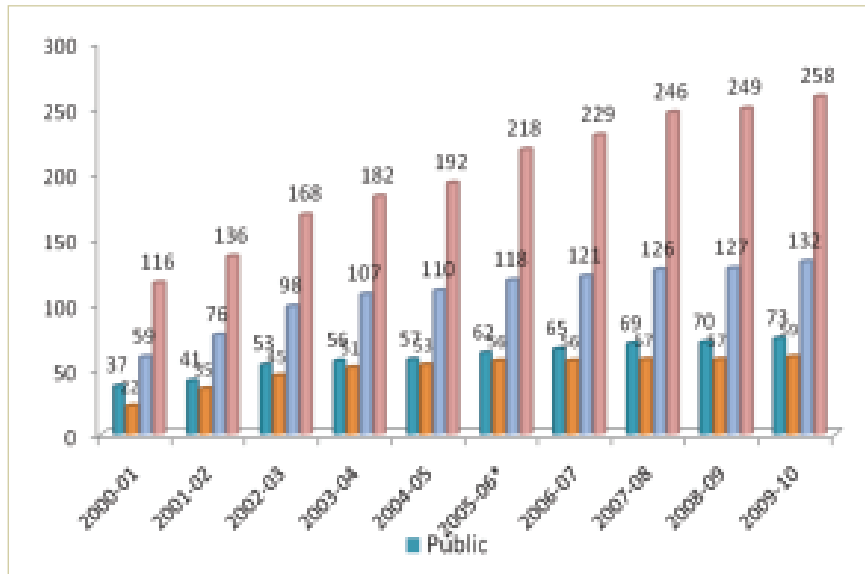
The academic collaborations take shape of various kinds of exchange programs. These include individual exchanges of faculty/students with foreign universities, Joint Post—Doctoral Programs, trainings, joint supervision of PhD scholars, collaborative research, joint seminars/symposia etc. Numerous initiatives taken in this direction have proven successful and are creating synergy for partner institutions. Keeping in view the important role Higher Education sector can play in the economic development, collaborations between the institutions of higher learning can be promoted so that synergies are developed, and an economic prosperity is ensured.

Introduction

The Higher Education Commission was set up to bring about a fundamental change in the higher education sector in Pakistan with a mission “To Facilitate Institutions of Higher Learning to serve as an Engine of Socio-Economic Development of Pakistan”.

Pakistan, with a population of around 170 million is the 6th most populous country in the world. The country’s population is estimated to double in the year 2045 if it continues to grow at 1.8 percent Pakistan is blessed with around 100 million of youth below 25 years of age, out of the total population of 170 million. Age group attending the higher education sector is in the range of 17-23 years. These at the moment are 23 million in this group and only 5.1% of this age group has access to Higher Education Institutions, putting huge responsibility on state and people of Pakistan to create opportunities for their youth.

In 2002-03 there were 26 public sector universities which are 73 as of today. Private and public sector together are making 132 HEIs in Pakistan. If we add campuses of different institutions, the total number of Institutions adding up of public, private and campuses are 258 in Pakistan.



The purpose of establishing international academic linkages between Pakistani and foreign universities is to provide opportunities to the academia and researchers for knowledge sharing and transfer. These collaborations can be – Student, Faculty Exchange Program, Collaborative Research, Split-PhD Program, Policy Dialogues, Regional Collaboration, Training Programs, Joint Conferencing and other Institutional Linkages.

HEC executes different programs/projects to facilitate establishment of academic linkages. For example, under International Linkages of Pakistani Universities with Foreign Universities (ILPUFU) project, links of Pakistani Institutions were established with Institutions of 21 foreign countries. Under Pak-US Joint Academic & Research Support Program (Pak-US), linkages are established with different universities/R&D institution in the US. Similarly under Pak-UK Joint Higher Education Links program (BC-HEC), 50 links were established with different UK universities. We have an ongoing program Pakistan Program of Collaborative Research (PPCR) under which HEC facilitates academia to coordinate with foreign universities and develop joint research proposals.

	No. of Linkages	Joint/Split PhD	Joint Research	Faculty Visits	Symposia/ Workshops
ILPUFU	30	35	25	120	5
PAK-US	30	31	30	47	41
BC-HEC (UK)	50	50	50	95	140
PPCR	11	NA	5	11	8
TOTAL	124	116	110	202	192

However, the undercurrent remains that the HEC should be providing a platform, through each of such collaboration, a springboard, which extends opportunities to the indigenous scholars and universities and facilitate learning.

Collaboration within Higher Education Sector.

We can start with Joint Under-Graduate programs, which can be of different modalities like 2 + 2, 3+1 etc. Looking at the financial and other constraints, to enhance the HR development in HE sector, Split Ph.D program is getting popularity and sounds to be a viable option. Similarly, Faculty Exchange Programs can create further opportunities to develop synergies among faculty/researcher working on similar research perspectives and add value in the process.

Moreover, Students Exchange Programs do serve as a component which helps create inter-culture harmony, which is the most effective tool in addressing the cross-cultural differences.

Information Technology, as a tool, has facilitated to open up another very important learning vehicle – the Distance Education. Similarly, Joint R&D is another effective way of collaboration, and beneficial because of the knowledge-sharing from different backgrounds and cultural settings. Our experience of joint R & D has proven to be a very effective tool for development of collaboration.

Pak-Turkey Academic Collaboration

Keeping in view the strong cultural and social collaboration between Pakistan and our brotherly country, Turkey, it is important that we initiate academic collaboration among our institutions of higher learning. HEC can play important role in facilitation of these collaborations.

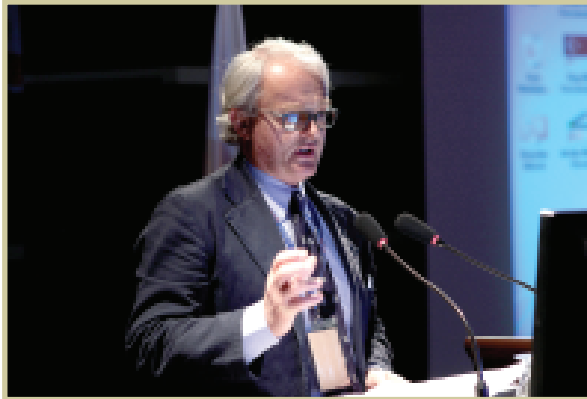
Way Forward.....

- Identification of priority areas for collaborators.
- Declaring each institution as sister organization
- Forum need to be identified for:
 - Policy dialogue
 - Research collaboration (thematic, interdisciplinary)
 - Academia collaboration
 - Regional collaboration
 - Transfer of knowledge in product development and communalization

We take these initial forms of collaborations as first step toward building strategic partnerships among our intuitions. These strategic partnerships envisage to facilitate the development of institutions to be world class Centers of education, research and development. Education plays a central role in the development of both human capital that is essential for social, cultural and economic development, as well as for inculcating active citizenship and ethical practices in the society. It is through collaboration that we can cash upon experiences and information from institutions of our sisterly nations, and head forward in future towards and educated society. We have a conviction that every evil of the society can be eradicated through proper education and here we need to help each other to make our world a more prosperous, ethically strong and economically developed world.

Prof. Giuseppe Zaccaria
Rector of the University of Padova, Italy

Prof. Allesandro Martin
Vice Rector for International Relations, University of Padova, Italy



New Approaches and Collaborations at the University of Padova, Italy

Introduction

I am deeply honoured by the invitation to present the position of the University of Padova, in this important international convention.

The title of this convention is evocative for us because we like to think that it was a trader and explorer from our area, Marco Polo, who “opened” the silk road.

The University of Padova was founded in 1222 and had already been in existence for half a century, when Marco, a boy of 17, his father and his uncle started their journey to China. In the following centuries many, trades, exchanges of art, culture, foods, spices have taken place along this road between the Venetian Republic and the neighbouring countries of the Adriatic and the East.

Military confrontations also happened: Turkey was the most feared enemy, but also the most respected. With Turkey, however difficult the period, relations and trades were always maintained, people could circulate and exchanges continued even during the wars. Our region, as you see, has been associated for a rather long period with the western end of the silk road and the countries lining it.

Now let me introduce our University as it is now: we have 65000 students of whom 12000 graduate each year. We have 2400 professors and researchers, 2300 technicians and administrative staff, 64 departments, 13 faculties, 1 honour school, 47 libraries, over 2 million books, 1 hospital, 1 veterinary hospital, 1 experimental farm. Our budget for this year is 500 million euros, of which 30 million are spent for research.

Ten years ago, at the Lisbon summit, the European heads of State agreed on the fundamental role of education and training for the growth of the European Union and set the goal to become, by the year 2010, the most competitive economy in the world, based on knowledge and dynamic learning.

Today, after ten years, we must accept the obvious fact that most of these objectives have not yet been achieved all around Europe.

Italy has always been at the tail-end of Europe for investments in research and higher education, and the distance from the Lisbon objectives is greater than in other countries; furthermore, our leaders have not been able to set up a global policy except one that is based on budget cuts and underfunding of research and higher education.



However, even the European Commission had to reformulate its strategy after the recent global crisis. For this reason, a new document, the “Agenda 2010” has been issued. Although it adopts a new philosophy, with greater attention to environmental and social issues, nevertheless it insists on strengthening research, education and innovation, as the main factors for sustainable growth and job creation.

We believe in this philosophy: research defines our identity and has done so for centuries.

It should be the driving force of our action; all types of research but especially basic research. Our National Research Plan is imbalanced in favour of industrial research, at the expense of basic research. It is true that applied research can provide for a rapid return on capital investment, but it is just as true that, without free basic research, creativity and true innovation cannot be developed.

Despite the limited investments, Italy remains among the first places in Europe for the quality and quantity of the scientific publications. According to the Starting Grant 2009, one of the most coveted European Research Council grants, Italy is in first place for the number of researchers and female researchers rewarded. However, only half of the Italians rewarded will work in Italian research institutes, whereas the rest will carry out their work in foreign laboratories and facilities.

We should ask ourselves why they do not have adequate opportunities in our country, given that they achieve important recognition at the international level, thus showing that they received good education and training in our universities. There are several reasons for this: the inadequacy of methods for selecting the best, the relative lack of structures for high level research, or rather their dishomogeneous distribution in the country, the lack of career perspectives and the comparably low salaries.

I should now like to touch the topics proposed by the organizers: trends, developments, approaches and collaborations

1. Despite the difficult situation, we focus on research and on recruiting a younger staff

In order to address this problem, our University has decided to use a large proportion of our financial resources to increase the percentage of young staff and their quality, believing that this is the only way to rise the level of research and teaching. So, at the University of Padova we chose to increase the number of research fellows, in comparison with the other academic positions in the last years.

The heavy and unprecedented budget cuts have forced us to streamline the use of our resources and to be extremely careful. This may be seen as positive but it also makes the “mission” to compete at the international level hard or even impossible. This year, a further reduction of 5 million euros in the yearly funding of our University has forced us to make difficult choices: we have reduced our investments in buildings and their maintenance, but at the same time we have given priority and increased our investments in international activities and research.

In today's difficult economic and political situation we have decided that instead of complaining, our sole option is to adopt a positive attitude which I might exemplify by using a distinction, a dichotomy. The dichotomy is between what does not depend on our competence, control and actions and what, on the contrary, depends on ourselves and our will, and therefore may be possible and achievable. We decided to focus on this second option. I shall give you a few examples.

It is not by our choice that public investment for the University is so modest: 1,6 % of public spending which is half of the OECD average, so that we are in the last place in the classification of the 22 OECD countries.

But we take it as our duty to do all efforts to increase the flow of funds by signing joint research projects with our Region, with the business world and with bank foundations or to attract external funds for our doctorate schools or for research projects of high qualification.

We have done it, for example, for a project on research on renewable energies, which puts together the abilities within our University and develop research which is important for our territory, if one considers that the photovoltaic production of the Veneto region amounts to 78 % of the national total production.

Another example? We are not allowed to choose and appoint excellent Italian or foreign researchers to cover academic positions without following the cumbersome timing and procedures decided by the Ministry; we cannot differentiate the salaries of our professors on the basis of their abilities and their success. However, we do all we can, as University, as Faculties and Degree Courses, to improve the quality of our teaching as much as possible, promoting the concept that its improvement should be everyone's goal. So, within the given rules, we try and choose the best professors; so we have recently passed a rule which allows to appoint young researchers, Italian and foreign, for a shorter time, but greater flexibility, in order to attract the best young even from abroad.

2. Promoting a culture of Evaluation

We believe in the importance of promoting a culture of Evaluation: so we have implemented the Evaluation of all our Departments, with the participation of international referees. We applied for and obtained the European Certification of some branches of the University: the Medical School, the Veterinary School, as well as some laboratories, Institutes, etc. Although we started only recently, I see that the idea of being evaluated has been accepted by our colleagues and that there are several instances in which this is even actively requested. It has been a major effort but a worthwhile one. We have also set up an internet-based system enabling students to evaluate their courses in detail, which gives us important information on how our teaching is perceived and assessed. This feedback is extremely useful for teachers and course directors.

We have created an Evaluation Team of all the activities of our University. Part of this team is made of external experts, well known at the international level. In the near future we will create a Research Observatory, aimed at organizing and updating the data banks of our scientific production and proposing criteria and ways for evaluating our research activities.

3. Collaborations and joining forces at the local level

Cooperation has always been an essential part of University life but it is now also a necessity in order to promote high quality research, to increase mobility and reduce costs. Without better and wider collaborations, both at the national and at the international level we believe that our University will not be able to grow. This is why, at the national level we feel that neighboring Universities should make an effort to abandon sterile competition and create networks or federations.

Competition is healthy and naturally linked to the University's autonomy but it is not really useful if it develops among institutions located in a territory of a few square kilometres. The Universities of the North-Eastern Italy are some of the best in the country and are very close together. Of course, Universities are not equal for what concerns their size, vocation, history, but each of them has some strong sectors. We therefore think that each of these Universities should work on its core identity and should abandon old corporative, futile, conflicts. We should then define the areas of excellence and specialization of each University in order to put together a unified, harmonized system of educational offers. If we are successful in joining forces through a process of federation where we maximize our strong points and compensate our weaker areas, then we could compete more efficiently on the international level. We may thus create a new cluster, which may be much stronger not only at the local level but also on the European scene.

As a matter of fact, in the last weeks, the Rectors of the Universities of Padova, Venice and Verona have agreed on a Statute of the Foundation of the Universities of the North-East.

4. Internationalization

Internationalisation enables different people to understand each other better and to become closer. This is a great antidote to divisions and preconceptions. This is in the humanistic tradition of European Universities and of the University of Padova and of Venice: for centuries we have been at the crossroads of European culture and the linking point between the Latin West and the Slavonic-Byzantine East. Our Region has been a melting pot of different cultures, languages, thoughts and ways of understanding sciences. This is still visible in the names, traditions and even foods of our area.

We want to work for a wider and more conscious opening to the international dimension, we believe that internationalization has to be one of our most important efforts and this will help us to project ourselves into the future. No matter how severe our economic problems, we have tripled the funding for these activities compared to last year. So we show with facts that we believe in it!. Internationalization is usually understood as the activities regarding the mobility of students and professors. Here we regularly rank at the top levels in Italy, with a total of 1500 exchange students under the Erasmus scheme, about 200 coming or going to extra European countries and some 2000 who are regular degree students in our courses. So we are not too dissatisfied with these numbers, although we wish to improve the attractivity of our University with more courses and examinations given in English, more double or joint degree courses, better services and housing. We also need to increase the percentage of our international teaching staff which is negligible at present, apart from the visiting professors. I should like to mention two other aspects: the first one concerns the need to include more of an international and intercultural dimension within our curricula and the learning process. An inspiration for this comes from the successful Erasmus Mundus Programmes: a teaching methodology developed through a collaborative and strategic plan and integrated with programmes and contents at the International level.

The second aspect is the increase in projects of international development, in cooperation with industrial and commercial enterprises. The cooperation already set up with external institutions such as the Chamber of Commerce and the Industrialists' Association need to be strengthened and further developed. We have kept on investing resources and abilities in technological transfer, with the aim of promoting the development of our territory.

In the last years we registered and sold 89 families of patents (43 of which have been patented internationally), created 39 spin offs and the increased the number of cooperation contracts with several enterprises.

On the Academic side, we recently signed a series of new agreements with the Universities of Alicante, Tokyo, Osaka, with the Purdue University, Griffith University, the Venice International University, the Guangzhou University.

With international cooperations we not only improve the quality of our research and teaching, but also can obtain funds from the European or extra-European funding organizations. Last year we obtained European funds for a total of 10 million, but this is clearly inadequate and we aim to triple them in the next 4 years. In the field of international collaborations we have great respect for and also great expectations from the Coimbra Group. As you know, this is a group of 38 ancient yet active European universities promoting cooperation and research through task forces, Rectors' meetings and other activities. Here we have several representatives; next year in recognition to our participation, Padova will host the annual General Assembly of the Coimbra Group. Now of course we have great interest in the newly formed ESRUC.

Apart from the European scene, we have several agreements, in all over 130: with Africa, the USA, Canada, Japan, China, Australia and South America. In South America a significant proportion of the people in various countries are of Italian descent and of these many came from the Veneto Region, so there is a special interest in exchanges, joint courses, etc. An organization derived from the Coimbra Group is Coimbrasil, which is very active of course in Brazil and with which we cooperate with good results.

Another form of international collaboration which is also very important for us is that with developing countries, where we offer teaching activities or exchange schemes with Africa and South America.

5. Students

For years, students have been treated by the University more as consumers and users rather than as our precious partners and stakeholders, the main reason for our existence, one could say. Through them we can look at the world, capture the signals of novelty and thus help us through renovation and innovation. We feel our duty to increase students mobility within international exchange programmes (Erasmus, Leonardo and Erasmus Mundus) in order to give them the opportunity to learn languages, live and study abroad, establish contacts. We also want to increase the number of the foreign students enrolled in the degree courses of our University.

It is especially towards students, but also their families and, at large, towards our country, that we University professors have a great ethical task, that is making them understand that education and training are difficult, selective, they imply discipline and sacrifices, but this is the best investment for their future jobs and their life.

No matter what the television suggests to our young, improving ourselves, rising socially, being successful do not go together with being lazy, uneducated, uncommitted: there is a clear distinction between leisure time and work, culture and what is not culture.

6. A final point

No matter the difficult times for the University and for our country, we are determined to convey, inside and outside, a message of seriousness and passion for the destiny of our public institution.

We have to compete in the international rankings with Academic institutions which provide funds which are five or ten times higher than ours, have many more researchers and maybe have only few Faculties on which they concentrate.

In this view, we cannot be too dissatisfied with being ranked around 200-300 in the world by the Times HE, or 150-200 by the Shanghai index.

Prof.Dr. Mohammad A. Mousavi¹,
Vice-President, University of Tehran, Iran

Prof.Dr. Farhad Rahbar²
President, University of Tehran, Iran

The University of Tehran and Internationalization of Education

Twenty first Century has started with a number of major challenges which require able future leaders to tackle those problems. Sustainable development remains an elusive long-term goal, too often sacrificed for short-term gains. Globalization of trade, of production, and of communications has created a highly interconnected world. Yet the tremendous gaps between the educated and illiterate, among rich and the poor continue to widen both within, and between nation. Preparing future leaders and citizens for a highly interdependent world, requires a higher education system where internationalization promotes cultural diversity and fosters intercultural understanding, respect, and tolerance among peoples.

Developing countries which suffer more from either lack of higher education for everyone and inability to reach the edge of knowledge should pay more attention to the role of universities (Young, 1998). In today world, universities play their progressive role of spreading intercultural knowledge, cultural values, research skills, scientific thinking, and team work, learning and teaching process cross-borders.

Such internationalization of higher education contributes to building more than economically competitive and politically powerful regional blocks; it represents a commitment to international solidarity, human security and helps to build a climate of global peace. It seems essential that higher education offer solutions to existing problems and provides initiatives to avoid problems in the future. Whether in the economic, political, or social realms, higher education is expected to contribute to raising the overall quality of life. As many academicians argue, higher education to fulfill its role effectively and maintain excellence, it must become far more internationalized; more integrate an international and intercultural dimension into its teaching, research, and education services.

While the existence of technologies in higher education is essential, teaching and e-learning technologies in particular, highly educated personnel and research at the highest levels are essential to increasingly knowledge-based development everywhere. Internationalization and international cooperation can serve to improve higher education by increasing efficiency in teaching and learning as well as in research through shared efforts and joint actions.

Internationalization of Higher Education: A conceptual Definition

The term which is most often used interchangeably with internationalization is globalization and thus it is important to explore further the relationship between globalization and internationalization. 'Globalization' is a process that is increasing "the flow of people, culture, ideas, values, knowledge, technology, and economy across borders, resulting in a more interconnected and interdependent world." Globalization affects each country differently. It can have both positive and negative consequences, according to a nation's individual history, traditions, culture, priorities and resources. Education is one of the sectors impacted by globalization (Knight 2006 in UNESCO 1999:17). For International Association of Universities, the notion of globalization is primarily an economic force that affects all sectors of activity, including higher education the discussion of this much debated phenomenon is left outside these pages. It is undeniable as well that the impact of globalization defined as: 'forceful changes in the economic, social, political and cultural environment, brought about by global competition, the integration of markets, increasingly dense communication networks, information flows and mobility' (Reichert and Wächter, 2000 at IAU website: http://www.iau-aiu.net/internationalization/i_definitions.html), is felt in most higher education systems throughout the world. 'Internationalization' of higher education: It is "the process of integrating an international, intercultural, and global dimension into the purpose, functions (teaching, research, service) and delivery of higher education"; which is to some extent a different process than globalization. According to OECD, internationalization of higher education is nothing more than "the complex of processes whose combined effect, whether planned or not, is to enhance the international dimension of the experience of higher education in universities and similar educational institutions". (http://www.iau-aiu.net/internationalization/i_definitions.html). This is the most broad and all-encompassing concept that integrates many different activities such as all forms of academic mobility, research collaboration, international development projects, scope of programs and courses, and curriculum of disciplines. P Altbach & J. Knight (2007: 290) argue that "Globalization and internationalization are related but not the same thing. Globalization is the context of economic and academic trends that are part of the reality of the 21st century. Internationalization includes the policies and practices undertaken by academic systems and institutions—and even individuals—to cope with the global academic environment".

Because of the interconnection as well as the differences of the two concepts of globalization and internationalization, on higher education in particular, Jane Knight (1999) differentiates the two concept as:

- "Globalization is the flow of technology, economy, knowledge, people, values, ideas ... across borders. Globalization affects each country in a different way due to a nation's individual history, traditions, culture and priorities.
- Internationalization of higher education is one of the ways a country responds to the impact of globalization yet, at the same time respects the individuality of the nation."

Thus, internationalization and globalization are seen as different but dynamically linked concepts. Globalization can be thought of as the catalyst while internationalization is the response, albeit a response in a proactive way. Teichler (2004) by addressing the Knowledge transfer, focuses on the changing debate on Internationalization of education due to the growing trend of globalization and argues that: 'Internationalization', the growing border-crossing activities between national systems of higher education is losing ground to 'globalization', increasing border-crossing activities of blurred national systems which is often employed to depict world-wide trends and growing global competition.

'Cross-border education' is the movement of people, knowledge, programs, and curriculum across national or regional jurisdictional borders. Cross-border education is a subset of "internationalization of higher education" and can be an element in the development cooperation projects, academic exchange programs and commercial initiatives.

Although there are small variation in definition of the concept by different international organizations. For UNESCO (2005), cross-border education covers “all types and modes of delivery of higher education programme, or sets of courses of study, or educational services (including those of distance education) in which the learners are located in a country different from the one where the awarding institution is based. Such programmes may belong to the education system of a State different from the State in which it operates, or may operate independently of any national education system”. According to OECD, they refer to: “situations where the students, teachers, programmes, institutions/providers, or course materials cross national borders (ibid). IAU focuses less on the commercial side of the concept and more on the mobility and defines it as: “Cross-border, borderless or transnational education Increasingly used to focus more specifically on those educational activities that involve some movement across borders, concepts such as cross-border, borderless or transnational education are often employed interchangeably” (http://www.iau-aiu.net/internationalization/i_definitions.html).

In 2005, within the framework of the elaboration of the UNESCO/OECD Guidelines for Quality Provision in Cross-Border Higher Education, the two organizations agreed to define cross border higher education as ‘higher education that takes place in situations where the teacher, student, programme, institution/provider or course materials cross national jurisdictional borders. Cross-border education may include higher education by public/private and not-for-profit providers. It encompasses a wide range of modalities in a continuum from face-to-face (taking various forms from students traveling abroad and campuses abroad) to distance learning (using a range of technologies and including e-learning”) (UNESCO/OECD,2005).

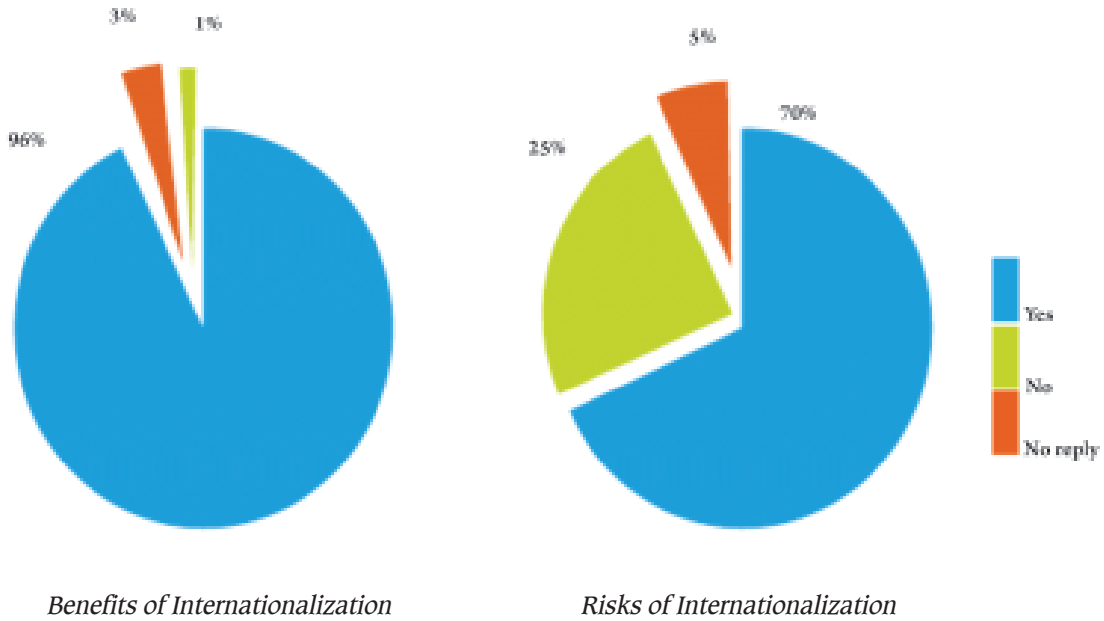
As is clear from the above defined concepts, the mostly used concept for our purpose in this paper is the internationalization of higher education which takes place in the real framework of the overall encompassing and ongoing globalization process. Cross-border education is a part of internationalization of education as well. Hence, here the focus is on the internationalization of higher education, being a dynamic process and not a set of isolated activities. Thus, I take the following definition as a framework for this paper: “Internationalization of higher education is the process of integrating an international/intercultural dimension into the teaching, research and service functions of the institution” (Knight, 1994).

‘Internationalization strategies’ in the context of higher education, refers to both campus-based activities and cross-border initiatives to facilitate and promote internationalization. Strategies include: international cooperation and development projects; institutional agreements and networks; the international/ intercultural dimension of the teaching/learning Process, curriculum and research; campus-based extracurricular clubs and activities; mobility academics through exchange, field work, sabbaticals and consultancy work; recruitment of international students; student exchange programs and semesters abroad; joint/double degree programs; twinning partnerships; and branch campuses. This Guide addresses only the cross-border aspects of internationalization of higher education.

Motivations for Internationalization of Education

The question is that what are the rationales and motivations to integrate an international dimension into higher education, from a national policy level, a sector level or an educational institutional level. The first level of analysis categorizes reasons to internationalization into four groups: Socio-cultural, political, economic and academic which are not necessarily distinctive categories. A second major trend is that there are changes happening within each categories as well. From a political point of view, internationalization is more relevant to a national perspective than an institutional perspective as international education seen more as a beneficial tool for foreign policy especially with respect to national security and peace among nations.

Diagram 1: Existence of Risks and Benefits of Internationalization for Universities



Source: analysis for 526 HIEs, www.unesco.org/iau/internationalization/pdf/internationalization_order_form.pdf

Though, in the era of globalization, there is a potential threat to the survival of national identities and for some will lead into denationalization or Westoxification. As Diagram 1 shows still there are notions of great deal of risks felt by even major universities around the glob from internationalization and globalization of higher education. The possibility for the homogenisation of values and cultures often referred to the “MacDonaldisation” , a risk often cited by developing countries. Others would label globalization as modernisation and a route towards finding solutions to global concerns such as environment, health and crime. However, if one does interpret internationalization as “a response to the denationalisation orientation of globalization, then internationalization can be considered and used by some countries as a way to strengthen and promote their national identity” (Knight et al 1995). This then becomes an important political rationale at the national level.

Table 1. Different Perspectives on Motivations and Impacts of Internationalization of Education

Rationales and Impact	Enrolled Students in Home/Receiving Country	Institution/Provider in Source/Sending Country	Institution/Provider in Home/Receiving Country
Increased Access/Supply in Home Country	Ability to gain foreign qualification without leaving home. Can continue to meet family and work commitments	Attracted to unmet need for higher education and training.	Relationship with foreign provider can be one of competition, collaboration or co-existence.
Cost/Income	Less expensive to take foreign program at home, as no travel or accommodation costs. Tuition fees from quality foreign providers may be high for majority of students.	Strong imperative to generate a profit for cross-border operations. Fees could be high for receiving country students.	Strong imperative to generate a profit for cross-border operations. Fees could be high for receiving country students.
Selection of Courses/Programs	Increased access to courses/programs in high demand by labour market (e.g., Business, IT, Communications).	Tendency to offer high demand courses that require little infrastructure or investment.	Local higher education institutions have to offer broad selection of courses regardless of whether they have high /low enrolments or have major lab or equipment requirements.
Language/Cultural and Safety Aspects	Can have access to courses in foreign and/or indigenous language. Students remain in familiar cultural and linguistic environment. Students today have stronger concerns about travel-related safety and security.	Language of instruction and relevance of curriculum to host country are key issues. If foreign language is used for delivery, then additional academic and linguistic support may be needed	Courses are usually offered in national language (or languages).
Quality	Can be exposed to higher or lower quality course provision. National policies are required to register and quality-assure foreign providers.	Depending on delivery mode quality may be at risk. Assurance of relevant and high quality courses may require significant investment.	Presence of foreign providers may be a catalyst for innovation and improvement of quality in courses, management and governance.
Recognition of Qualification	Foreign qualification has to be recognized for academic and employment purposes.	May be difficult for academic award and for institution to be recognized in foreign country	Recognized home providers have an advantage and are often attractive to foreign providers for their award granting powers
Reputation and Profile	Because of massive marketing campaigns, international profile is often mistakenly equated with quality of provider/program.	Profile and visibility are needed to attain high enrolments and strategic alliances	Home (domestic) providers are challenged to distinguish between those providers with high/low profile and high/low quality.

Source: Higher Education Crossing Borders, UNESCO, 1999: P28

While cultural, scientific and educational exchanges between countries are often justified as a way to keep communication and cultural relations active, there is a growing trend to see education in terms of an export commodity. Hence, cross-border education becomes one of foreign policy tool. There are major shifts in foreign policies where education was primarily seen as a development assistance activity or cultural programme to one where education is an export commodity. This shift to a market orientation introduces the economic rationale for internationalization of higher education (Table 1).

As a result of the globalization of the economy, a growing interdependence among nations and the information revolution, countries are focusing on their economic, scientific and technological competitiveness. Hence, the economic motivation has increasingly gained importance and relevance. Effective ways to improve and maintain a competitive edge is through developing a highly skilled and knowledgeable work force and through investing in applied research. Both of these strategies involve the higher education sector. Thus, there is a closer link between economic and technological development and internationalization of the higher education sector of the country. At the institutional level, the economic motivation seems higher. Deep cuts in higher education budgets have made institutions look for alternative sources of funds, such as international markets for the export of products and Services. This has resulted in a rigorous debate as to whether the export of education products to international markets is in fact contributing to the international dimension of teaching and research or is contributing income to the operating budget of the institution.

For many educational institutions improving the quality of higher education is the primary goal of internationalization, not the development of international export markets. Hence, it is essential to find the balance between income generating motives and academic benefits. The question remains as how one can differentiate an international trade type of education activities (with less significant contribution to the international dimension of the exporting institution) from those international activities which are income generating and also have a positive impact on the teaching, research, and service functions of the institution. The academic motivation or rationale for internationalization is directly linked to initiation of universities, driven from the concept of 'universe'. Cross-border mobility of scholars have been there for centuries, from East to West and South to North, and vice-versa. At the same time, reaching standards for teaching and research has made the internationalization of higher education as internationally standardization of teaching and research (Table 1). While concern is expressed about the uniformity and homogeneity that can result from the excessive emphasis on internationally recognized standards, there is general acceptance to achieve international standards of excellence in scholarship and research, while preserve each systems' culture of education. (ibid) De Witt (1995) examining the internationalization process in USA, Canada, Australia, and Europe argues focusing on the development of strategies by institutions of higher education for greater internationalization and reformulation of the missions of teaching, research and service.

The internationalization of education partially relates to the Internationalization of the Curriculum (IOC). It has been traditionally linked to the movement of students between countries to study. Recently IOC has been re-conceptualized as 'Internationalization at Home (Nilsson, 2003 in Fathi 2008) with the consideration of personal and professional growth of all students within a globalized economy, and their development as world citizens (Knight, 2004; ibid). Some universities are now moving into a higher phase as they establish campuses in several countries as well as using ICT to provide higher education for all interested people around the world. This has brought challenges from staff and students overseas as to the relevance and ownership of curricula. These challenges bring to the fore the tensions between the global and the local. Information Technologies (IT) plays an important role in the success of IOC.

The University of Tehran; a Derive to Internationalization

Rooted in Jondi Shapur University which goes back over 2,000 years, the University of Tehran in its traditional form was established seven centuries ago. It was founded firstly in religious seminaries ("Houza" or traditional religious schools). Other than religious studies the education then covered mathematics, astronomy, medicine, literature, biology, physics and chemistry. During the modern era, the University of Tehran evolved from a religious structure to a more modern and secular structure of higher education.

Dar-ol-Fonoon College was the first engineering school in its modern form which was established almost a century ago, at the same time of the similar establishment in Turkey of Ataturk. This was 20 years before the establishment of similar colleges in Tokyo (Japan).

Today, the University boasts of training sophisticated staff and producing the edges of knowledge and patents. University of Tehran as one of our glories has offered a great deal of scientific capacities in national and international levels in the universities of neighboring, Muslim and friend countries as well as the rest of the world. The capacities involve training researchers and staffs for government and private firms, organizations and institutes. The University is proud of many of our graduates who have been among the top officials and managers in each period of political activities and administrations. Add to this, a lot of celebrities in Iran and abroad in America and Europe in private and state level are Tehran University graduate.

Present Status

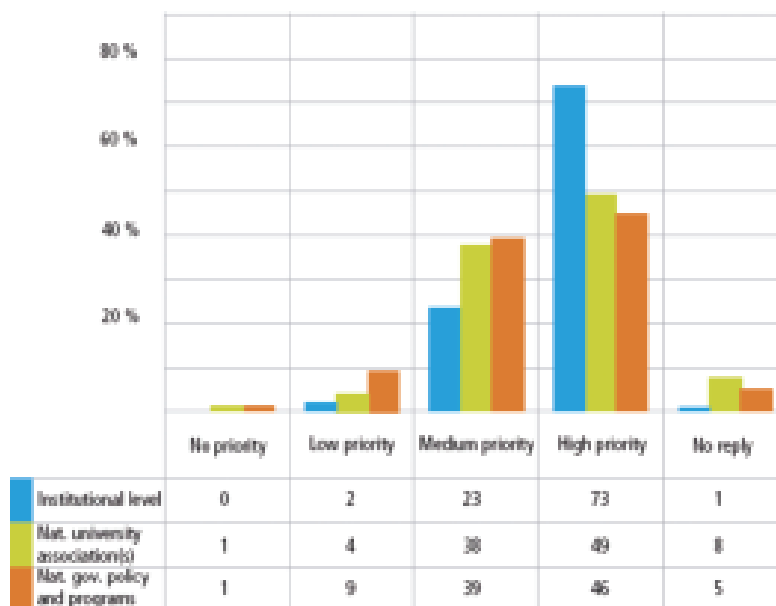
The first state-run university of the country, the University of Tehran tries to provide an excellent academic environment aiming to respond the growing needs of students and strives for the continual development of effective modes of education while providing a wide variety of choices in educational programs and services. The valuable role of the UT faculty members in country's scientific and research development and training of the specialized and qualified forces to serve the Islamic Republic of Iran, along with the global new advancements have caused a considerable impact on flourishing ideas and preparing grounds for political and social moves in Iran. To meet the objectives the Science and Technology Park and Incubators try to turn the knowledge and technologies in to patented knowledge in the national, regional and international levels and to smoothen the use of them by industry and manufacturing sectors to set them in the cycle of production. The academic staff of the University consists of 1,650 full time faculty members and several hundred part-time and adjunct professors and affiliated faculty members. The University of Tehran has a broad range of international adjunct faculty members. The University also employs 3,000 personnel who work at the different offices, institutes and centers. The University has 19,000 undergraduate and 13,000 postgraduate students. The University has 6 colleges, with a total of 46 faculties, 120 departments at its 7 campuses. The University of Tehran, as the main research University of the Country, offers more than 300 post graduate programs and 150 undergraduate programmes.

Fifteen percent of the country's Centers of Excellence, as recognized by the government, are located at the University of Tehran, which along with more than 40 research centers ensure UT's commitment to research. Together, over 3,500 laboratories are active in these centers and in the faculties. In addition, the University of Tehran publishes around 50 scientific journals, some of which have the ISI index.

University of Tehran enjoys the best rank among the Iranian universities, based on the well known international ranking institutes. According to Times Higher Education System (THES) in the Year 2008, University of Tehran is ranked 386 top best universities in the world. College of Engineering of UT has been awarded the rank of 112 in the same year in the world. UT enjoys the cooperation of foreign countries in holding international conferences, seminars and workshops. In 2008, close to 1,000 UT professors and postgraduate students have taken part in international conferences with university funding. Also UT regularly hosts many delegations and professors from abroad. The university's student clubs sponsor numerous activities including domestic and overseas trips. Furthermore, in order to promote academic excellence among students, the university hosts more than 118 Student Scientific Associations. There are also 14 Students Unions active in student cultural, welfare and academic affairs.

Orientations of the University of Tehran

As Diagram 2 shows, the internationalization of the University of Tehran has been a priority as other 526 important Higher Education Institutes around the world.

Diagram 2: Importance of Internationalization for Higher Education Institutes


Source: IAU, Key Results: 2005 IAU Global Survey on Internationalization of Higher Education

The priorities of the University of Tehran are framed to meet the following goals and objectives.

1. To respond to the society's needs: Researches are implemented based on the requests of private sector and government authorities, as well as industries. In the same direction Government-University-Industry linkage (GUI), has become a policy of the University of Tehran to bring about a strong linkage. The Office of Research and Technology of the University which deals with research is the intermediary of UT with industry and government to launch any research project. Professors and postgraduate students are the integral part of such activities at the University.
2. Training human resources and professors for other universities of the country.
3. Internationalization of the University is currently another major drive. It is sought through the improvement of standards of the researches and education at the high international levels, moving to the edge of knowledge, increasing the international cooperation and presence, increasing exchange programs, and increasing the number of foreign students.

Currently the University of Tehran enjoys over 150 agreements with major international universities and institutions from more than 80 countries. UT has the Membership of various international and global educational and academic associations such as: Federation of Universities of Islamic World (FUIW), the International Association of Universities (IAU), and Executive Board membership of Association of Universities of Asia and Pacific (AUAP).

4. To reach to tope of the knowledge-based University: This task has been through moving on the edge of knowledge, processing knowledge to technology through the Science and Technology Parks and many incubators is another task at UT. The incubators aim to support minor and weak corporations by providing them with a range of financial, consultancy and training services. At present the UTSTP incubator consists of 21 major units.

Internationalization of the University of Tehran: An Evaluation

As Table 2 shows, the internationalization of education may take shape in form of people mobility both the students and academicians; programs in form of joint or double degrees in collaboration with foreign universities. The education institution may provide branches outside, or establishes franchised centers. Virtual education centers are the most accessible form of such collaborations. University of Tehran, supports financially the mobility of professors and student. Over 1000 staff and students benefits from financial support of the University for their presence in international conferences and workshops. Furthermore, the University tries to provide financial supports for 5% of the academic staff for sabbatical leave every year. Arasteh (2006) argues that ameliorating the quality of higher education require universities to expand their levels of international academic cooperation. Using his concept of international academic collaboration, particularly in sending students abroad, sabbatical leaves and interuniversity cooperation, University of Tehran is expanding its internationalization process.

Table 2. University of Tehran and the Mobility Category

Category	Forms and Conditions of Mobility (Development Cooperation; Educational Linkages; Commercial Trade)	University of Tehran
PEOPLE Students Professors/scholars Researchers/ Experts/consultants	Semester/year abroad Full degrees Field/research work Internships Sabbaticals Consulting	Conferences:30% p/y; 500 S p/y 3% Sabbatical p/y; Freedom of mobility S exchange minimal
PROGRAMS Course, program sub-degree, degree, post-graduate	Twinning Franchised Articulated/validated Joint/double award Online/distance	Double degrees with 10 int'l Us; 3 Joint PG degrees Distance L
PROVIDERS Institutions Organizations Companies	Branch campus Virtual university Merger/acquisition Independent institutions	Virtual campus; Planning 3 Int'l branches 38 research centers, S&R Park
PROJECTS Academic projects Services	Research Curriculum Capacity-building Educational services	Support joint research; Int'l the curricula Offer education services (Afghanistan, etc)

Source: Author, used the UNESCO, 1999: P20, Adapted from Knight 2005

Based on IAU criteria, there are five major elements of internationalization policies for universities (Table 3). University Tehran's record on these criteria are shown in the following table, based on a general comparative analysis.

Table 3. University of Tehran and Internationalization Criteria

Criteria	Strong	Good	Average	Weak
International institutional agreements	<input type="checkbox"/>			
Outgoing mobility opportunities for students		<input type="checkbox"/>		
International research collaboration				<input type="checkbox"/>
Outgoing mobility opportunities for faculty/staff		<input type="checkbox"/>		
Visiting international scholar			<input type="checkbox"/>	

Source: Author

Evaluation of the Internationalization Strategy of the University of Tehran

The second method for evaluation of the success of the University of Tehran's internationalization policy goes back to the Internationalization Strategies. The Programme Strategy and Institutional Strategy are the two main categories for evaluation (Knight 1999: pp22-27). The first category of Strategy based on Program is academic programmes, perhaps closest to what is considered by many to be internationalization activities; initiatives that can be undertaken to integrate an international/intercultural dimension into curriculum content and the teaching/learning process for undergraduate and graduate students. The second category focuses on research collaboration; the substantive nature of the research, the methodology, the research collaborators and the distribution of the research/knowledge. In terms of internationalization the category of external relations and services has traditionally been oriented to international development activities and bilateral co-operation agreements between institutions. This category as Knight (1999:25) argues "is gradually shifting to more of a 'trade' than 'aid' focus"..... Networks and consortium among education institutions (and also with the private sector) are becoming more popular." Growing attention is given to the development of alumni groups in foreign locations. Hence, this category of internationalization strategies seems to be fundamentally changing in orientation and increasing in importance. Extracurricular activities can be an effective way to internationalize the total educational experience of both domestic and international students and help to bring a comparative perspective to the classroom.

As is shown in Table 4, the derive for internationalization of the University of Tehran is conditional to some of the activities which are at the initial stage. The progress and success of these categories will be essential in strong internationalization of the University.

This new derive is clear from the organization decision of the decision making body of the University and as is clear from its new orientations and statements (the 20 Years Vision -2014-2034- and the Second Five Year Plan -2010-2015- of the University). Furthermore, the organizational upgrade of the Office of International Relations of the University to the level of Vice-President, International has been a sign of strengthening the guidance of the internationalization policy at the organizational level. Institutional or Organizational strategies include initiatives which assist “to ensure that the international dimension is institutionalized through appropriate human resources, policies and administrative systems. The focus on organizational strategies is what distinguishes the process approach from the other approaches. By stressing the importance of integrating the international dimension into the institution’s mission statement, planning and review systems, policies and procedures, hiring and promotion systems one is working toward ensuring that the international dimension is institutionalized” (Knight 1999:25).

Table 5. Institutional Strategies

Categories	Criteria	University of Tehran
Governance	<ul style="list-style-type: none"> – Expressed commitment by senior leaders – Active involvement of faculty and staff – Articulated rationale and goals for internationalization – Recognition of an international dimension in mission statement and other policy documents 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> (in progress) Weak
Operations	<ul style="list-style-type: none"> – Integrated into institution-wide and department planning, budgeting and quality review systems – Appropriate organizational structures – Communication systems (formal and informal) for liaison and coordinator – Balance between centralized and decentralized promotion and management of int'lization – Adequate financial support and resource allocation systems 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Support services	<ul style="list-style-type: none"> – Support from institution-wide service units: housing, registrariat, counseling, fund-raising – Involvement of academic support: language training, curriculum development, library – Student support services for international students studying on campus and domestic students going abroad: programmes, counseling, etc. 	<input type="checkbox"/> Weak <input type="checkbox"/>
Human resource development	<ul style="list-style-type: none"> – Recruitment and selection procedures which reorganize international and intercultural expertise – Reward and promotion policies to reinforce faculty & staff contribution to int'lization – Faculty/staff development activities – Support for int'l assignments and sabbaticals 	--- <input type="checkbox"/> (in progress) --- <input type="checkbox"/>

Source: Author based on Knight 1994; Knight and de Wit, 1995

Overall, the evaluation of the University of Tehran shows that the internationalization of the University at both level of programme and Institutional Strategy are successful. By the recent organizational decisions of internationalization of the University and upgrading the international office to the Vice-President level on the one hand and the new scopes of international activities and agreements to boost exchange of staff and students; double/joint degrees with other universities; recognition of foreign curriculum and degrees to some extent (based on evaluation); providing financial support for outgoing and incoming staff, students and researchers; establishing foreign branches; and using the new IT technologies for accepting foreign students as well as having foreign courses at home on the other, all are proof of the new drive for having an internationalized University of Tehran.

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The Bologna process in the post-soviet countries – Azerbaijan case

After the collapse of the Soviet Union, in all post-soviet countries there started processes directed to create the basis for independence in all the spheres of the social life and establishing it due to the modern world standards. One of the important tasks for them was to get rid of old educational system, update it to new socio-economic conditions and integrate into developed international standards. The Caucasian countries are among these states.

Azerbaijan joined the Bologna process in 2005 in order to establish independent educational system and increase its level of quality. It should be mentioned that joining this process will not automatically resolve existing problems in high education. It charged those countries with the responsibility of solving many problems. But naturally, within this work we face a lot of objective and subjective problems which require the whole society's efforts. Especially we have a great need for the support from civil society. Thus, the potential of a state and its adequate structures is not enough for solving this global problem. Education is the sphere that concerns everyone and everyday. The society's initiative, the solving the problem by society and its support are the important terms for the success of this work.

We think that reforms being implemented in country's high education greatly depend on the active participation of public society, especially high school teachers and students in the processes. From this point of view along with the research of theoretical and practical objects of the Bologna process, drawing peoples' attention to this matter even more, conducting the elimination work among them and supporting mobilization their power were put as objectives of the implemented project. According to the results of the researches conducted by the research group of Azerbaijan Tourism Institute, joining the Bologna process and the implementation of reforms in this direction, as well as apprising the whole high educational society as comprehensively as possible, is one of the important issues.

One of the important issues for implementation of reforms according to the requirements of the Bologna process in new countries is the research of the essence of this process, explaining its confusing and contradictory points and, finally, bringing it in conformity with a law. At the same time while implementing the European high education model considering the characteristic features of the local environment, compliance of this experience with them, as well as preserving the positive experience, which has been gained so far, and national traditions in high education sphere in this or other countries are important issues of today. It should be particularly taken into consideration that the Bologna process has many problems even in Europe. There it is planned to accomplish the first stage of the process in 2010. Along with resolving numerous problems connected with characteristic reality of their countries, the newly joined countries should give their contribution to the solution of common issues.

There is more need for investigations for the Bologna process and its application in the post-soviet Caucasian countries where this theme covers a large part of the public life.

Azerbaijan, as the country facing this problem, can be example, proving that the situation in other countries is the same. That is why taking Azerbaijan as an example gives the possibility to understand the whole essence of the issue.

As it has been indicated it was necessary to implement fundamental reforms in educational sphere of Azerbaijan, including high education, after gaining independence. Collapse of socialist socio-economic system, the course taken to the market economy which made it necessary to carry out reforms, as well as the establishment of the basis of the country's education in a new socio-economic and political environment turned into one of the urgent problems of today. Searches started that period changed country's direction to the advanced world standards, including integration to Europe in educational sphere. They started implementation of the Bologna process long before, various high schools implemented different elements of European education. Implementation of test system in high school admission process, division of higher education on bachelor and master stages, establishment and extension of cooperation relations with developed world countries' high schools and many more were such types of steps.

After adoption of the Bologna process in Europe in 1999, the approach of Azerbaijan to the European higher education system became more specific. Finally, Azerbaijan's official joining the Bologna process and taking appropriate duties and responsibilities proved persistent aims and direction of the country.

It should be mentioned, that in spite of the fact that the Bologna process has been initiated by European countries, its principles and objectives fully suit the interests of newly joined countries. Higher education system of each newly joined country has equal rights in comparison with European countries. In general, problems could arise because of different interests of each country; however, it is impossible in voluntariness environment. On the contrary, joining the highly-developed countries, approaching high level of development and reaching appropriate standards in educational sphere, use their own support can give only positive challenge. Those who sceptically approach Azerbaijan's joining the Bologna process, very often confuse the formation of European Educational Zone with the globalization process. The Bologna process helps meet the reality created by globalization process and be ready for it; being in one row with the developed European countries, for Azerbaijan and other young countries of the region, solving all the problems within European High Education Zone is the only right step and there are no other alternatives.

At the same time it should be remembered that joining the European High Education Zone will not solve the problems of the country in this field. On the contrary, being full and equal member of this zone, country assumes appropriate responsibilities and requires to solve too many problems within very short period of time. One of the problems facing the high educational system of the post-Soviet countries which have just joined the Bologna process is the issue of increasing the quality of education as well as the level of personnel training to the level of the European standards. In our opinion, the problem, whose solution seems impossible, can be settled by raising the question radically.

Another major problem of the Bologna process in these countries is probably that higher educational institution is lacking awareness. The problems of further investigation of the essence, objectives, perspectives and contradictory instances of the Bologna process and the formation of a clear view of it in the community are actual issues, and there is much to do in this direction.

As it has been stated many times, alongside with the other terms, achievements of the Bologna process in every country are related to the thorough investigation of the local environment, moral and psychological training of the people for these reforms, including the high school students and employees, their highest enlightenment and the mobilization of their efforts. These investigations and social inquiry give an opportunity to have a complete view of the existing environment.

For instance, within the framework of the project realized by researchers of Azerbaijan Tourism Institute, there was conducted sociological inquiry involving analytic research and higher education public. These reearches and sociological inquiry enables to provide a clear picture of present situation. The inquiry conducted among more than thousand respondents in Azerbaijan was aimed at two directions.

One was directed to the identification of the opinions and attitudes of only the students, and the other of the high school teachers, supervisors and other employees. Total results almost coincide in both directions. While evaluating the real state of the form and quality of education on the basis of questionnaire, respondents of both categories appeared to have common view. 70 per cent of the teachers and 74 per cent of the students declared that the level is not high for the present day and needs sweeping reforms. Only 14 per cent of the students agreed with the idea that the level of education meets today's demands. The promising point in this issue is that the majority of the high school community conceive the necessity of increasing the quality of education and are morally and psychologically ready for the reforms in this respect. As for the question "To what extent do you agree with the form and quality of education in high schools?" they preferred the second variant out of following answers: 1) absolutely agree; 2) partially agree; 3) do not agree; 4) difficult to answer. This answer is an obvious proof of the necessity of radical reforms and of the moral support for the educational reforms.

According to the results of the survey, the identification of the level of awareness about the credit system – a demand of the Bologna process – was one of the points revealed. The fact is that the level of awareness of the credit system is different in separate high schools. In the high schools, where the credit system is applied at a low structural level, the knowledge about this system is very little and very often this knowledge covers only a small contingent of students. In the colleges and universities where education started to be formed on the basis of the Bologna process and covering more faculties and courses the awareness is better. But even in those institutions there is no common view of this new educational system and its separate components, and the views are often contradictory. The reasons for that are the diversity of the universities, the contradictions in the present situation, the dependence of the education in Azerbaijan still on former stereotypes and negative tendencies as well as the imperfection in the application of the European credit system practice.

There are such questions that even those who have large knowledge of the Bologna process cannot answer simply, because when speaking about the high educational reforms carried out in respect with the Bologna process in Azerbaijan, the automatical application of any European model here is out of question. We must consider the local features, local potential and local traditions in this matter. At the same time, we must conceive that the problems of high educational system of Azerbaijan did not appear only by joining the Bologna process. The problems concerning all the other fields of the country's social life also have an impact on the educational system.

According to the results of the survey, it becomes clear that neither students nor teachers are satisfied with the pace of the reforms which are being carried out. It is being planned to establish a unique high educational zone in Europe and as it was mentioned above, to complete the first stage of obtaining primary common standards in 2010. The process does not finish yet, it enters more perfect and mature stage. In fact, there is little time to catch up with the European countries which have joined the process, or at least to reach a level close to those countries. There is much to do about that.

Respondents see the solution of the majority of existing problems in integrating to Europe. Most of the respondents answered positively to the question "Can the reforms corresponding to the Bologna process be the solution of the existing problems?" But it must be realized that the community itself should desire and try for the positive changes, otherwise no high-level model or assistance can give the proper results. It is not a mere coincidence that 78.6 per cent of the teachers and 72.2 per cent of the students who were inquired declared that joining the Bologna process will have little impact on the solution of the existing problems. One of the most attractive points in the results of the survey concerns the expectancy of the reforms. The most repeated answers of the respondents to the question "What can Azerbaijan achieve by joining the Bologna process?" were about the reduction of negative cases in education, the increase of its level, the enlargement of the graduates' opportunities of finding jobs and the acceleration of the integration process of the high education in Azerbaijan into Europe. As regards to the factors impeding the development of the high education in Azerbaijan, the respondents restate the negative realities known to everybody and emphasize the issues such as improving the high school maintenance, increasing its quality, regulating the teacher-student relations and so on.

In the results of the survey particularly the student respondents' attitudes to a number of issues draw attention. It must be particularly stated that the students' awareness of the Bologna process and its separate elements is less than teachers. 77 per cent of the students were not enough aware of the matters, and it carries an incomplete character. 11 per cent of them stated that they were absolutely unaware of that. Especially if the student does not study at the institution where the new system is applied, his/her knowledge of it is quite limited. Secondly, the students of the high educational institutions in the regions are either less aware than the students of the central universities of the country or do not show any interest in this matter. On the other hand, the attitude to the new approach in education is different in private and state high schools. The state and private high schools functioning on the basis of the principles of the Bologna system both possess large awareness and show great interest in these issues.

One of the issues raised by the students and written in the blank space of the questionnaire considered for the students' own answers concerned the lack of their organization work. The students fairly direct our attention to that according to the principles of the Bologna process, one of the significant points is the increase of the students' role in the process of high education, including its managing. Supporting the students' opinion, we would like to add that the student organizations in Europe are one of the parties having an influence on the process. The student organizations there working in this respect join more than one million students and they give a powerful impetus to the successful development of the Bologna process with their useful proposals and by active participation. We think that it is the very time to implement this in Azerbaijan.

Another attractive point in the results of the research is the identification of the dependence between the student's qualification and his/her future career. To the question "To what extent does your current study guarantee your future career", 24.2 per cent of the students answered "completely guarantees", 53.5 per cent of them answered "partially guarantees", 10.4 per cent chose the answer "does not guarantee" and 10.7 per cent found it difficult to answer. As we see, present situation also has an influence on the students' self-confidence in the labour markets due to their qualification and its level of quality. That is why, the reforms in high education must be considered from the beginning till the end and aim at ultimate end.

One of the interesting points concerns the student's choice of specialization while entering a high school. As a whole, the results of the analytical researches and social surveys to a certain extent give an opportunity to learn the existing situation in the high educational system of Azerbaijan more thoroughly, to elucidate the existing problems and to find the ways of their solution. We think that current researches need to be thoroughly analyzed and carried on.

Concluding all mentioned above, we would like to summarize our opinions.

- The former Soviet countries' joining the Bologna process in the sphere of education was a necessity arising out of the demands of historical development. The integration of their high education into the advanced Europe, entering the unique high educational zone of Europe and organizing their work on the basis of its standards give an opportunity for a successful future;

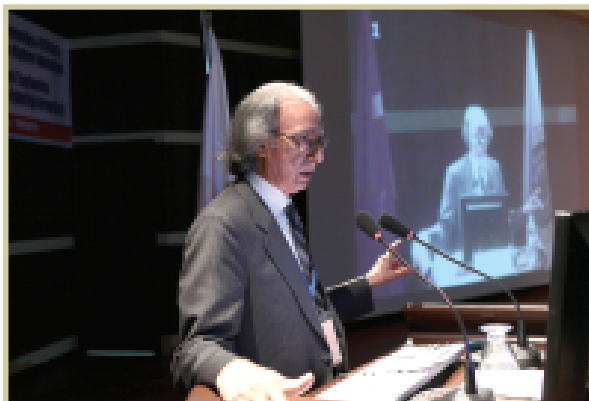
- However, these countries do not only fail to solve their problems in the sphere of high education but on the contrary, multiple their responsibilities and duties by joining the Bologna process and formally becoming a full and equal member of the high educational zone of Europe. It is important to implement the responsibilities requiring much work and energy in order to change the formal equality into a real one as soon as possible. Otherwise, instead of becoming a full and equal member of the high educational zone of Europe they can change into a remote backward part of it;

- The urgent things to do in this sphere are to ensure the socio-economic basis of the country's high education due to the European model and to confirm legally the independence (autonomy) of the high educational institutions in order to maintain the successful work of the universities in the open competitive environment;

- To work out certain measures in order to increase the quality of education and to realize it is one of the urgent demands of today;

- To enhance the work with students in order to change them from the objects of high education to the subjects, to organize students and to support their participation in administrative structures is one of the main issues on the agenda.

Prof. Dr. Pirzada Qasim Raza Siddiqui
Vice-Chancellor University of Karachi, Pakistan



Prof. Hikmet Koçak, the president of Atatürk University, his faculty members and associates, the presidents and rectors from different universities of the world and faculty members, scholars, ladies and gentlemen, I am very honored to be here in this session, in particularly attending this convention and I have seen and witnessed yesterday morning while the convention was inaugurated that something which is conceptually very rich and very important has come into existence.

Ladies and gentleman you know that the Eurasian Silk Road Universities Convention is a reality now, and we are a part of this venture and we feel good that we are here and we are exchanging our views and hearing the experiences with each other so this is very good and I feel good. For this organization of the convention, acknowledgement should be for the Turkish government, higher education commission, but the main personality with this concept, which is stern and converted into reality, is Prof. Hikmet Koçak and we must appreciate and gratefully acknowledge the efforts made by his team and all at the University of Atatürk at Turkey. Why I say so, because the organization and it came into existence now in a very beautiful and meaningful fashion so in the years to come I feel that it will be a great forum for us to develop ourselves at the universities in research and importing knowledge and training to our people so this is very good and I am grateful on behalf of all the universities, and colleagues and academia of Pakistan and thank you very much for that.

I am from the University of Karachi in Pakistan. In Pakistani perspective my colleague Dr. Mukhtar Ahmet has given you a comprehensive talk and you know about the higher education profile and what where we are going and doing in higher education. Some of the remaining parts will be dealt by another colleague of mine, Dr. Masoom of the Quaid-I Azam University and Dr. Masoom will tell you about more higher education in Pakistan. But what I feel is that I introduce you my university to you the Karachi University, it is a larger setup in Pakistani prospectus, I have 24000 students at the campus and more than 100000 at the periphery that is the afflicted colleges so it is a large one and 4000 faculty, teaching faculty, research and supporting staff. What I would like to say, that we are doing our best at that level through higher education programs but Karachi university is good in natural sciences and the world ranking, a very recent ranking, last years, the Karachi university in publishing and researching and publishing in impact factor journals in natural sciences is at the number of 237 so our stronger area is that and in particular chemical sciences and natural product chemistry. So I extend my invitation to all of the members of this forum, this convention over here that they can come and visit us and that they can see we have a very good atmosphere, very good environment and very good system for research for chemical sciences, particularly in natural product chemistry. We will welcome all from each of the universities if they wish for doctoral programs, post doctoral studies and special training as we have this special training session for many very regular visitors are from Canada and from Germany and many other countries for regular training in natural science products, chemistry, so you are most welcome.

Well, what I learnt when I come to this convention, what we have learnt, at the global level we are seeing is time is passing very fast, the pace is very fast, exchanging at a very rapid state and what we feel that we must not remain now in isolation, if you remain in isolation we will be doing our best in our own field but cannot succeed towards goal achieving performances for our people. So collaboration could be the best strategy for the years to follow, so in that perspective I think that this forum has its role.

My proposal is that since we are here and we inaugurated let's take this opportunity to have a formal consortium or some formal organizational setup which will remain here and there will be all the people who came to the very first conference will be the founder members and the others can join later on so this will be a forum, a permanent forum for collaboration in our countries which are known as the Eurasian silk road countries so a very good opportunity. I propose that since Dr. Hikmet Koçak has taken an initiative the head quarter of this sort of thing could be in Atatürk University here in Turkey and each one of us will be collaborating with you. The collaborating programs here will start and will be communicated to the others so it's a good opportunity to say so and we must have a slogan, it's a motivation for all of us, like be together and be successful so if we are together we will achieve something out of that so it is very important and necessary. Simultaneously my proposal is that we must also have a special institution with collaboration of all of us, what special, special means here that we must have an institute for future studies and future planning, for us, all of us.

Future, what is going to happen after say 300 years, it is far away but you never know that what is going to happen in a hundred years time. The whole geopolitical and each aspect is going to change so should be a good planning, a collaborative planning with us and we must participate into that one so an institute for future planning and research and we will take up the special areas, for example food and water. I personally feel that in years to come, maybe in a hundred years, only those nations who can survive will be those who can feed their population, it is a very important notion that we must have our resources, see and excavate new possibilities together and help each other to have the newer resources, food and water and things like that. Environment, another one which is going to be addressed, at the moment it is very important and it will become very important, with the passage of time, each day we are having something different and it's going towards new settlements somewhere and simultaneously we may focus on the new generation technologies because the technology should be friendly technology, environmentally friendly and socially so it is very important. These two proposals, if you feel then it must be initiated through this forum, simultaneously I feel that at present there are problems, we are doing good and there are some problems which are there and which one can foresee.

For instance in my region, in my country, what I feel, what I see, is that in the educational system we are giving them training and education, they are coming out but what the society needs is leading professionals, absolutely A grade professionals, now we need A class managers, bankers, in all different sectors we need these. But sometimes I put a question to myself, do we need human beings, real human beings with real feelings or are we producing robots? There are only exclusive professionals, they are good but what we need ladies and gentlemen are good professionals and skilled professionals with all the human values which should be inculcated during the training programs. It's very important, otherwise to address important things in the years to come will be getting difficult and difficult more and more. So, humanism should be at the important place in all our designs and circulars and things like that, and what I feel is that a good professional, a very skilled one in his/her field simultaneously must have something like, literature and religion and also art and culture. So all these things should be over there should be included in the best way that it is produced. So why I say so, I feel that it is very important because so many of you in their talks they have said that there are culture traditions at their own ways, which are good, very good for humanity, each other, we have got the cultural relationship and ties, we may extend those, but how are we going to have that because this is a transfer, a transfer not from one individual to another, this is the gist, but this is the transfer through generation to generation. If it is through the generation then it will reach to the next generation and then to the next generation.

What we have the method at the moment, if we want to send somebody some information or some material then a very fast one is the internet, you can send information and material but the conventional way is to make a packet, a parcel and then hand over to the courier service and the courier service man will deliver it the next morning or maybe earlier, whatever it is. But ladies and gentleman I feel that the tradition, culture and values, they are not transported through the courier service, no, they need institutional facilitators, people in the society that they will take and transfer it to the next generation. That is why I say that only professionalism is not good but simultaneously we should add so many, so many good things to this venture. So, what I suggest that should be, the product of the universities which is coming should be having a versatility, not a singular thing but versatile with the professional skills. So these were a few of my proposals and suggestions to everybody and I hope that we will be able to have this if this as an institution establish this linkage so it will be good for all of us.

Thank you very much for your patience and listening.

Prof.Dr. Tina Gelashvili
Rector, Akhaltsikhe State Education University ,Georgia

Prof.Dr. Roin Kavrelishvili
Rector, Akhalkalaki State Higher Educational Institution, Georgia



Akhalsikhe Devlet Eğitim Üniversitesi Üniversitede Kalite Yönetimi

Gürcistan'ın eğitim sistemine yönelik yaptığı reformlar Avrupa Birliği standartlarına göre yapılmaktadır. Bologna sürecine üye olmak yüksek öğretimin Avrupa standartlarına yaklaştırılması için çok önemlidir ve bu süreçte Kalite Yönetim Dairesi de önemli rol oynamaktadır.

- Kalite Yönetim Dairesinin genel amacı eğitim süresince elde edinilen analiz sonuçlarına dayalı eğitimin ne kadar uygun şartlarda sürdürülebileceğinin tesbit edilmesi, var olan problemlerin belirlenmesi ve bu problemlerin daha sonra çözülmesidir.
- Kalite Yönetim Dairesi, eğitim - öğretim ve değerlendirmede çağdaş metotları (kredi ve Avrupa transfer sistemi, eğitim programları, modül ve müfredat programı) uygulayarak kaliteli bir eğitim ile akredite süreci için gerekli olan çalışmanın hazırlanmasını teşvik ediyor.

Kalite Yönetim Dairesinin Amaçları:

- Üniversitede eğitim ve bilimsel-araştırma çalışmalarının değerlendirilmesi
- Eğitim ve bilimsel-araştırma çalışmalarının geliştirilmesi için gerekli tavsiyelerin hazırlanması
- Kurumsal ve Programsal akredite için iç gözlem sürecinin düzenlenmesi

Kalite Yönetim Dairesinin Amaçları:

- Eğitim ve değerlendirme için çağdaş metotların uygulamasını teşvik etmek
- Bologna süreci prensiplerinin uygulamasına teşvik etmek
- Uluslararası işbirliği ve genel Avrupa eğitim anlayışına üniversitenin entegre edilmesini teşvik etmek

Gürcistan'da yüksek eğitim Bologna sistemindeki gibi 3 kademelidir:

- I. kademe: Lisans – 240 ECTS
- II. kademe: Yüksek Lisans – 120 ECTS
- III. kademe: Doktora – 180 ECTS
- Diplomalı Uzman
- I. kademe dahilindeki alt kademe 120 – 180 ECTS

Öğrenciler lisans programlarına ÖSS sonuçlarına göre, diplomalı uzmanlık programlarına (Lisansın alt kademesi) ise Ales sınavı sonuçlarına göre kabul edilirler.

Gürcistan'da Yüksek Eğitim Kuruluşları:

- Kolej – lisans ve mesleki yüksek programlarını gerçekleştiren yüksek okul
- Eğitim Üniversitesi – lisans ve yüksek lisans programlarını gerçekleştiren yüksek okul
- Üniversite – lisans, yüksek lisans, doktora programlarını ve bilimsel araştırmaları gerçekleştiren yüksek okul

Yüksek Okulların Tipleri:**Devlet ve özel yüksek okulları**

- Devlet tarafından ancak akreditesini alan ve buna eşit yüksek okullarca verilen diplomalar tanınmaktadır .Yüksek okullar ile eğitim programlarının akreditasyonu Milli Eğitim Akreditasyon Merkezi tarafından yapılmaktadır

Eğitim Programı (Cirruculum- Kurukulum):

- Eğitim programı kurslar veya modüllerin bir bütünü olup , bölüme özgün akademik eğitimi almak için vardır ve gerekli kredi sayısı ile alınan eğitim sonuçlarına göre belirlenir.

Eğitim Programlarının İçeriği :

- a) Eğitim programının adı
- b) Yüksek akademik eğitimin kademesi
- c) Eğitim programının tipi (akademik, meslek, asıl, ek)
- d) Eğitim dili
- e) Verilecek istihyas
- f) kredi sayısı
- g) Programa kabul edilecek koşullar

Eğitim Programlarının İçerikleri:

- h) Öğrenci tarafından gerekli şartların elde edilmesi ile başarılarının belirlenmesini gösteren programın amacı
- i) Eğitim sonucu
- k) Çalışma alanı
- l) Öğrenci bilgisini değerlendirme sistemi
- Program Ekleri
- a) Eğitim planı
- b) Eğitim kurslarının programları (Müfredat)
- Eğitim programı gerçekleştirmek için gereken personel ve maddi kaynaklar hakkında bilgiler

Lisans programı temel ve yan derslerden, ve seçmeli derslerden oluşmaktadır

* Temel ana branş (Major) – mesleğe ait derslerden oluşur ve lisans programlarından mezun olan öğrenciler için uzmanlık sahasını belirler, ve en fazla 160 kredi alınabilir.

Lisans programı temel ve yan branş derslerinden ve seçmeli derslerden oluşmaktadır.

• Ek program (Minor) – mezunlara iş sahasında daha fazla şans kazandırmaktadır. Genellikle ek branş kendi fakülte kapsamında seçilmektedir. ama bu kesin değildir. Diğer fakülteden kredi seçildiğinde branşa göre fakültenin öğrenci sevketme hakkı vardır

Seçmeli dersler/krediler

• Seçmeli dersler/krediler ancak öğrenci ilgilerinin yerine getirilmesi ile genel eğitimin pekiştirilmesi için kullanılır. Seçmeli dersler diploma ekinde yer almaktadır. Seçmeli dersler 20 krediden oluşmaktadır.

Avrupa kredi transfer sistemi (ECTS)

- Alınan diplomanın tanınmasını Avrupa kredi transfer sistemi (ECTS) sağlamaktadır .Bu sistem ilk defa 1989 yılında uygulanmıştır. ECTS göre bir akademik yıl 60 kredi ile belirlenmiştir.
- Gürcistan'da 1 kredi 25 saata eşittir. Bunun yüzde kırkı ders saati olup yüzde altmışı özgün saatlerdir.
- ECTS ' ye göre saatler ders, seminer, özgün çalışma, proje ve sınav saatlerine ayrılmaktadır

Müfredat

- Eğitim programın ve eğitim sürecinin önemli kısmını ders müfredatı oluşturur.Müfredat ders verme planını içerir ve öğrenci ile hocanın görevlerini belirler. Dersler başlamadan önce öğrenci hedefine ulaşmak için müfredatta olan eğitim metotlarını görür. Ayrıca üniversite yönetim kurulu müfredata göre hocanın çalışma kalitesini de kontrol edebilir. Müfredat ders verme metotlarının geliştirilmesi için gerekli olan ön koşulları da sağlamaktadır.

Not yazmanın genel usülleri:

- Öğrencinin notu 100 lük puan sistemi ile değerlendirilir.
- En düşük not 51 puandır
- Notlama en az 4 lük usul sonucuna göre yapılır (derste bulunmak, seminerlerde çalışmak, ara sınav, final). Not kriterileri silabustadır.Müfredattadır.

- | | |
|----------|---|
| • Puan | Not |
| • 91-100 | pek iyi |
| • 81-90 | çok iyi |
| • 71-80 | iyi |
| • 61-70 | orta |
| • 51-60 | geçer |
| • 41-50 | geçemez , öğrenci final sınavına bir defa daha girebilir |
| • 0-40 | tamamen başarısız, öğrenci kredisini almak için derse baştan girmelidir |

Üniversitede Kalite Yönetimi:

- İşlenen program fakülte kurulundan geçer ve değerlendirme için üniversitenin kalite yönetim dairesine sevk edilir, daha sonra onaylanması için üniversitenin senatosuna gönderilir
- Senato tarafından onaylanan programlar üniversitenin haber merkezine gönderilip okulun websitesine yerleştirilir

Üniversitede Kalite Yönetimi:

- Programsal akreditasyon yapılincaya kadar iç gözlem süresince sistematik olarak lisans programlarının değerlendirilmesi ile karşılaştırılması yapılır
- Kalite Yönetim Dairesi yüksek okulun yönetim kuruluna gecikmeden ve doğru şekilde analiz edilmiş bilgileri verir. Bu bilgiler başarılı bir şekilde yönetmek için alınan kararlarda kullanılmaktadır.

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Professor Dr. Mohammed Abdul Aziz
Vice Chancellor
University of Information Technology & Sciences (UITS)
Bangladesh



Quality Higher Education at Affordable Cost at UITS, Bangladesh

Quality Higher Education at Affordable Cost at UITS, Bangladesh

To meet the increasing demand of higher education and to facilitate the access of higher education to the increasing number of general students, the Government of the People's Republic of Bangladesh permitted through Private University Act 1992 to establish private universities since 1992 by well-wishing persons, associations, charitable funds and institutions who are eager to establish and manage private universities.

University of Information Technology and Sciences (UITS), the first IT-based private University in Bangladesh was founded on 7 August 2003 as a non-profit organization. "Future will be better than thy past" is the slogan of UITS and the main objective of UITS is to provide quality education at affordable cost. INFORMATION SCIENCE AND TECHNOLOGY SOLUTION LTD. (ISTS), a concern of PHP group headed by Alhaj Sufi Mohamed Mizanur Rahman Chowdhury is the sponsor of UITS. The guiding spirit behind Alhaj Sufi Mohamed Mizanur Rahman Chowdhury's endeavor is "divine blessings, mixed with hard work, backed by good intentions, make miracles."

The government was pleased to accord permission with effect from 07 August 2003 to function this university as per its Vision, Mission, Goal and Commitment to Quality Education with a view to shape a complete, more effective, more efficient humane person.

It endeavors to remain at the cutting edge of building knowledge and skills, integrated with human values and ethical practices in Bangladesh. It is a science and technological knowledge-based center that provides marketable skills for younger generations who may be gainfully employed both nationally and internationally.

"Universities, like religious institutions – the church, temple, mosque and synagogue – are perhaps the oldest continuing institutions of human civilization; and they have largely managed to remain relevant by adapting themselves in varying degrees to the changing circumstances. Universities have shown a remarkable ability to evolve with the growth of knowledge and have avoided obsolescence by adapting their curriculum, pedagogy and institutional arrangements. This is in many ways the source of their resilience (Reinventing Universities: Higher Education in a Global Society – Page 1, Professor Dr. Gowher Rizvi). " Producing skilled and globally focused workforce is the most important ingredient to any nation in a world where competitors can come from next door or around the world. Today, possessing knowledge and having the ability to use knowledge worldwide is critical to personal and social progress. UITS is engaged in the process of fostering an environment that attracts, sustains and retains creative, imaginative, and globally resourceful individuals. We are aware of the role of higher education as universities are the primary suppliers of human resources in a changing world.



In the context of globalization, generation of new ideas, technologies, methods, products and services is of crucial importance to sustain competitive advantage. This has resulted in even greater demands on universities to develop deep-rooted entrepreneurial cultures that are international in scope, as the creation, transfer and use of knowledge are ongoing and evolving process. Likewise, the growing competition among universities and other entities that now develop, distribute and market education are compelling us to seek unique ways to differentiate our programs from others.

Vision

To establish a university in Bangladesh that shall be a world-class nucleating center of achievement

Mission

To redefine goals of higher education and sustainable economic growth of the country through a tripartite relationship between itself, industries, reputed universities and institutions at home and abroad.

Goal

To develop a skilled, competent and innovative pool of youths who are to exploit emerging opportunities, invent new technologies in selected fields of development, and at the same time be employable at home and abroad.

Commitment to Quality Education

Foremost to the University's existence is providing quality and the best education to its citizenry and the rest of the world. By quality education, we mean development or enhancement of one's free mind, attitude and human values, provision of correct information, and the endless quest for truth and knowledge. With this perspective, the University is committed to provide quality education through diversified and responsive content of its curriculum, well trained and experienced faculty members using appropriate teaching methods and processes, well-maintained and technologically equipped facilities and quality services. All of these are aimed to shape a complete, more effective, and more efficient, humane person.

Quality Education at affordable cost

There are questions that pertain to the funding and sustainability of the universities in global perspective. The demand for higher education has expanded exponentially and the cost of funding quality higher education has increased phenomenally. UITS is committed to providing quality education at affordable cost to all the students regardless of high cost of education. INFORMATION SCIENCE AND TECHNOLOGY SOLUTION LTD. (ISTS), the sponsor of UITS, provides 50% of all the students' tuition so that quality education is affordable to all the students of UITS. Moreover, UITS believes that quality education is accessible to the academically brilliant students regardless of their socioeconomic status. In that context, all meritorious students of UITS receive full free scholarship and students also receive need-based scholarship

Academic Strategies

The principle of education at UITS is that up to the first degree level knowledge imparted must have the potential for immediate application. This means (a) the content is modular and (b) teaching must accompany either project or practice, and in some cases also research. The second feature is that the program is a "staircase" providing recognition at every year or step within the same vertical scheme. It also allows lateral entry or re-entry to complete the undergraduate degree. It allows a student to quit school after successfully completing a number of modules at different stages for any reason, including lack of funds or for employment. Such "drop-outs" shall be employable on the basis of whatever knowledge and skills have been acquired.

Other strategies adhered to are the following:

1. Promote the practice of lifelong learning;
2. Build up an infrastructure for the promotion of advanced and new sciences and technology at affordable costs;
3. Network with institutions and organizations at national and international levels for exchange of knowledge and information;

Liberal Arts Education:

The curriculum of UITS is designed in way so that the students study Liberal Arts education in addition their respective major or program. A knowledge based society cannot develop if the students do not study Liberal Arts courses while they are at the university. “Scholarship is ultimately about the pursuit of truth. Liberal Arts education equips the students with the tools to seek the truth that will free them from ignorance, superstitions, prejudices, narrow mindedness and bigotry. Liberal education frees the student from the existence of a robot whose mind parrots the inherited wisdom and prejudices (Reinventing Universities: Higher Education in a Global Society – Page 6, Professor Dr. Gowher Rizvi).”

THE SCHOOLS

UITS has three Schools, namely, the School of Liberal Arts and Sciences, the School of Business and the School of Computer Science and Engineering. The degree programs offered by these schools are:

- School of Liberal Arts and Sciences
 - Bachelor of Arts in English
 - Bachelor of Laws (Honors)
 - Bachelors of Laws (2 years)
 - Master of Arts in English

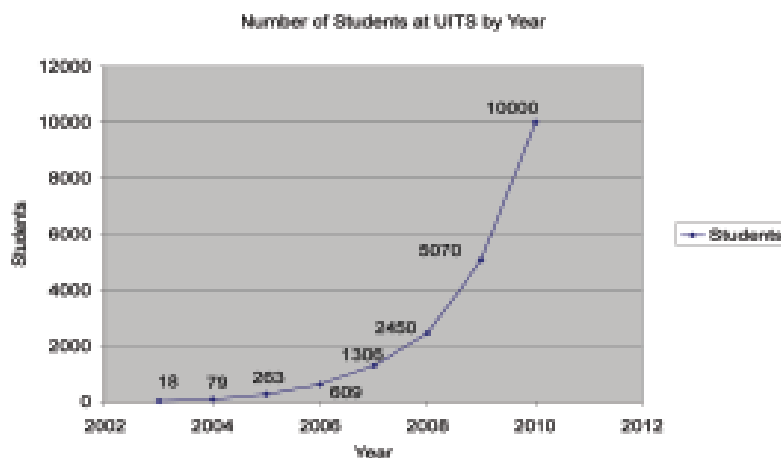
- Master of Laws (1 year)
- Master of Laws (2 years)

- School of Business
 - Bachelor of Business Administration
 - Master of Business Administration

- School of Computer Science and Engineering
 - Bachelor of Science in Civil Engineering
 - Bachelor of Science in Electrical & Electronic Engineering
 - Bachelor of Science in Information Technology
 - Bachelor of Science in Computer Science and Engineering
 - Bachelor of Science in Electronic and Communication Engineering
 - Master of Science in Telecommunications
 - Master of Science in Computer Applications

Number of enrolled students: 10000

Number of teachers: 350



Other Information:

The academic programs of UITS have the following special features:

- a. Information and Communication Technology-based programs. All subjects are taught using current ICT
- b. Flexible in terms of choice and modularity of courses, multi-point entry and exit, horizontal and vertical mobility, interdisciplinary movement.
- c. Market-oriented Internship programs in actual work sites conducted in Bangladesh or abroad.
- d. Socio-Culturally oriented. Students are encouraged to participate in country development and welfare projects in the fields of health, education, judiciary, traffic, environment and other fields.
- e. Previous Learning and experience recognized. Subjects or courses may be validated based on previous learning and experience.

University Relations

The University Relations is aimed to develop the tripartite relation between the University and industries, organizations, other universities and institutions. It is in charge of doing liaison work, public relations, conduct of conferences, alumni relations and the archive. The unit is responsible for initiating and developing external programs, support constituent and affiliated units, among others.

Academic Programs

The academic programs of the University were crafted to develop a total persona. Students are provided with general and specialized knowledge, development of humane values and ethics, and yearning for lifelong learning. Moreover, the curricular programs provide for flexibility in terms of choice of courses, modularity of courses, multi-point entry and exit, horizontal and vertical mobility, interdisciplinary movement and a combination of classroom, laboratory work, technology invention and patenting.

All curricula have four critical foci:

1. **Market orientation:** In different modules and sets, all courses are to meet the needs of students and guardians regarding employability;
2. **Accreditation:** The credits and certificates are “pegged” to overseas qualifications and recognition. The current trend of credit transfer and joint degree is leading to a perception of “academic hostage” as was experienced in Malaysia and Singapore. The same practice can be seen here. The UITS proposes another approach, which is of seeking overseas recognition of the program and the course modules by adopting a significant part of overseas syllabi and course monitoring. The UITS constantly collaborates with national and international institutions to adapt and modify its course structure and contents.
3. **Multi-credential approach:** Students require “saleable knowledge and skills, thus the University awards different levels of certificates and diplomas with the same vertical degree protocol, culminating in four-year bachelor’s degree within the same cost and time.
4. **Recognition of previous learning and national talent:** In order to encourage national talent in IT entrepreneurship, management and human relations, there is provision to recognize prior learning as well as individual initiative in scholarship and practicum.
5. **Industry/Commerce recognition:** The UITS fosters direct links and inputs from trade and industry and their association into course work/projects and practices. The university also undertakes tailored courses for industrial and commercial manpower to fulfill its policy obligation. Some of these courses may be incorporated in the University’s graduate and post-graduate programs.

Convocation 2009

Convocation 2009 of UITS was held at Bangabandhu International Conference Centre on July 20, 2009 and 460 students graduated during that convocation. Prominent Nuclear Scientist and former President of India His Excellency Dr. APJ Abdul Kalam attended the Convocation 2009 of UITS as a Convocation Speaker. Professor Dr. Gowher Rizvi (Adviser to the Hon'ble Prime Minister of Bangladesh for International Relations and Vice Provost for International Programs & Professor of Global Affairs, McIntire School of Commerce, University of Virginia, USA) attended the Convocation 2009 of UITS as a Special Guest. His Excellency Md. Zillur Rahman (Honorable President of Bangladesh and Chancellor of UITS) was also present during the Convocation 2009 of UITS



Picture Caption: His Excellency Dr. APJ Abdul Kalam is presenting books written by him to His Excellency Md. Zillur Rahman (Honorable President of Bangladesh and Chancellor of UITS) during the Convocation 2009 of UITS at Bangabandhu International Conference Center. Al-Haj Sufi Mohamed Mizanur Rahman (Chairman of UITS & PHP Group) and Dr. Gowher Rizvi (Adviser to the Prime Minister of Bangladesh on Foreign Affairs) are seen on the left and Professor Dr. Mohammed Abdul Aziz (UITS VC) is seen on the right.

Creation of knowledge, its storage and dissemination in the international context are seen as the primary task of the 21st century universities. UITS is seeking ways to further connect their faculty, students and outside communities in a strategic infrastructure where ideas flow, new initiatives blossom, flexibility abounds and global reputation expands to meet the growing challenges of the current world.

Prof. Dr. Muhammad Masoom Yasin Zai

Vice-Cancellor of Quaid-i-Azam University, Islamabad, Pakistan



Higher Education Reforms: A Perspective from a Developing Country

Prof. Dr. Hikmet Koçak, Rector of Atatürk University, fellow rectors, vice chancellors, ladies and gentlemen, a very good afternoon to all of you.

I will try my level best to keep you awake with my presentation. I will take you through a very short journey of the higher education reforms in Pakistan, the steps that we took, the challenges that we had and then briefly talk about my own university that is Quaid-I-Azam University.

This is where the major problem laid, that Pakistan, the entry into higher education is only 5% as compared to the rest of the countries and it was in 2002 that the HEC, the higher education commission was established in Pakistan and they took up this challenge. There were 3 areas, which were addressed by the higher education commission and that was the area of quality, the access and the relevance, these were the 3 challenges we faced at that time and all 3 were addressed. Now first of all, these are how we responded to the challenges that we had. We concentrated on the faculty development on improving access and learning by establishing certain new universities and giving access to the people of Pakistan from every corner of that country, the access was given. Then to address the area of relevance, we established in the country certain centers of excellence, which were concentrating on the regional issues and on the issues of the country, and then we found the relevance to the national priorities. For the quality issues, this was supported by the quality assurance agency, which was established by the higher education commission and these quality enhancement cells; they were established in every university of the country. There are 120 universities in the country, in every university it has been made mandatory that they will have the quality enhancement cells and they are complying strictly with all these standards, which are set by this quality assurance agency through the HEC. Then through the good governance in management and the infrastructure development both physical and technological we have addressed these challenges that we faced. This is how we took the quality assurance program, these qualities as I said quality enhancement cells were established in the universities complied strictly with all the regulations set by the HEC and at every step these are being monitored and evaluated.

The standardization of the degree programs previously in Pakistan was not in line with the international degrees like 4 years Bs Program but with the establishment with the HEC the very first step that they took was the introduction of the 4 years Bachelors degree program, so this bought us in line with the other international degrees and now our universities could easily internationalize because then our masters degree also became 18 years of education, which previously was 16 years of education. With the in lining of this bachelors degree program the post graduate degrees like Ms and M.Phil they were also streamlined we had lots and lots of reforms in our doctoral and PhD programs which I will talk about later on when I come to my university as well.

The major emphasis that the higher education placed in Pakistan was on human resource development. Almost very close to 10.000 scholars are pursuing their PhD studies today.

50% of them are abroad in technologically advanced countries and 50% of them are pursuing their PhD studies in the best institutions through indigence PhD program in the country. You can see these figures over there; these figures are now enhanced because these are the old figures. You can see that in infrastructure development so much emphasis was placed on this infrastructure development that we jumped from something like 25 universities in the public sector to 63 universities in the public sector.

Similarly the private sector was also given the opportunity and the private sector also flared up and new institutions were opened in the country and now we have go in total 120 universities and degree awarding institutions. You can see these ones and some of the universities like this one you can see Kohort University of science and technology, this is the area in which we are now fighting the war against the terrorists and these universities are in those difficult areas playing their role over there. Similarly these are some of the examples like this is one university, Ust Bannu, is very close to Waziristan area where the war is going on these days and you can see that these universities the government is trying its level best to help these institutions to the door steps of the people so that we can change their mind set. These are some more ones. You can see that in the entire country we have given them the pern, which is the Pakistan education and research network and through this network all the premier educational institutions are now connected and they are getting 1 GB connectivity and through this connectivity they can use the net and 23.000 full text journals, they are also made available to the researchers over there.

Now as I told you that to address the problem of the challenge of the relevance, in these 8 years the government of Pakistan through the HEC, higher education commission, established certain centers and these centers were over there as centers of excellence which were only addressing the areas which were local, based on the local needs. You can see over here whatever funds we have spent over the last 8 years in our reforms. On our reforms agenda you can see over here that 55% of that is spent on human resources development and we do understand that this is the most important for our universities. Once we have these human resources established in the universities then these universities can easily become internationalized and can find the place which they deserve. And similarly on the academic infrastructure, the second largest spending that is made in this area, similarly on the research equipment and access, as I told you through pern, giving access to our scholars and others on all those areas. This is the sector wise distribution we have done, 62% of the spending is made in all the general universities of the country and these are covering all the natural science subjects and social sciences and the biological sciences while in the engineering section also a great emphasis has been placed to that and we have bought some new engineering science universities and the already existing universities also have been strengthened.

So in conclusion, I would say that in the last eight years the attention of the government toward higher education reforms has not only changed the landscape of the old universities or pre existing universities but also has changed the landscape of the new universities and the facilities in the new universities they are further advanced over there.

Now we come to Quaid-I University, that is the university which I am leading and this is one of the premier national universities, the federal university because it is situated in the federal capital of the country and the identity of Quaid-I University is research because this is a very strong university as far as research is concerned. We produce something like 100 PhD's annually and the intake is mainly for the PhD studies for the M-Phil and masters studies but soon we will be starting the graduate studies as well. But our identity is the research productivity. You can see over here that we have got a total of something like 635 PhD students; they are there on campus the three faculties, faculty of biological sciences, natural sciences and social sciences. These are the 3 strong faculties of the university and in the 24 departments and different schools; these students are engaged in research and productivity. So on the faculty development, we have concentrated on these four aspects that we have got the foreign scholarship program for our students where we send our students abroad to technologically advanced countries and we place them. We make their placement so that they are in whichever area we want to train them. We send them to that particular lab and particular group where they are trained and come back to us. Then there is another scheme of the HEC, which is one that has supported us and I would invite the attention of the honorable rectors and vice chancellors to this that in Pakistan we do have this scheme of the foreign faculties where we hire the services of the foreign faculty from any country in Pakistan in the field which that university is strong. Then we have got another system also operational in the universities that are faculty spared on the basis of their performance, it is not one salary for all, it is performance based. Those who are most productive get more salary, a salary which is almost equal to one that can be paid to a teacher or professor in Europe or in America the same salary we pay to our professors if they are productive.

And if they come up to that level apart from that one to retain our faculty in the university we also give incentives to all those faculty members who are on the regular schemes over there. Quaid-ı Azam University is already on the process of internationalization not only in terms of curriculum or students but we are also interested in the exchange of faculty but more interested in having the faculty going to Quaid-ı Azam University rather than going from Quaid-ı Azam University and we will also be very much interested in the joint ventures.

We have also established on the campus the university development offices like the quality enhancement as I said, the financial aid office; we give something like scholarships to some 1500 students. On the campus the poor students, those who come from low social economic status are given scholarships if they get the admission on merit then money is not a problem, the university supports them. We also have the university advancement office on the campus. So in our future planning we focus on the faculty development and the training and research, we focus on hiring faculty from outside, we are focusing on starting the Bs program in some of the disciplines and also because of the financial strains we already have the impression from the government that we should depend less on the national exchequer but generate our own funds. So through the agenda of this public/private partnership arrangement we are establishing some of the schools on our campus and these schools will be financed and run by the private sector but under the logo of our own university under the statutory bodies of our own university.

There will soon be two schools like the school of economics and the school of mathematics on our campus. So these are the challenges that we face over there. The first challenge is that of Terrorism, financial constraints as I mentioned, the inability to involve industry, one of the things I learnt from here which was a remarkable thing that the Turkish government has done it through its ministry of science and technology that with the academia they have also involved the industry. Here we have failed to do that and we must concentrate on that. And we also need to link research to the local needs, which we have already taken up on the agenda. And the difficulty to attract and retain the quality researchers, this is one thing we much concentrate, with all these reforms and the attention given to higher education in the Middle Eastern countries and that has made it difficult for us because they are offering salaries four times higher and those high salaries are attracting our good researchers over there and it is difficult to stop them and that has become a challenge for us too.

So Quaid-ı Azam University is ready to develop linkages with our foreign partners, we are already on the agenda of internationalization, we are ready. If you stretch this Silk Road slightly towards the east I am sure that then that line is going to pass through the cricket ground of my university, so I would request that is stretched a little bit further and we are ready for any type of the linkage program, for any type of collaborative program, for any type of joint ventures for the joint PhD programs, split PhD programs, and things like that.

One thing more, I would like to let the audience know that very recently his Excellency, the President of Turkey, Dr. Abdullah Gül visited us and we conferred on him a doctoral degree in International relations and soon in our school of international relations and political studies there will be a chair which we will establish after his name, Dr. Abdullah Gül Chair of international relations.

With this I thank you very much; I thank the organizers for inviting me and giving me this opportunity, Atatürk University and also I thank Harun, for making all this effort to bring us over here and give us this opportunity to me the Excellencies in this gathering.

Thank you very much

Prof.Dr. Ahmet Çetin Can
Rector of International Black Sea University, Tbilisi –Georgia
Prof.Dr. Natela Doghonadze
Vice-Rector of International Black Sea University, Tbilisi –Georgia


The Effect of International Black Sea University on the Relationship of Georgia and Turkey

International Black Sea University (IBSU) was established in 1995 in Tbilisi, Georgia. The mission of the International Black Sea University, besides providing high-quality education on all three levels (Bachelor, Master and Ph.D.) is to strengthen friendship between Georgian and Turkish Nations, as well as other nations, and prepare a labor force that can conform with contemporary market economy standards IBSU is situated in Tbilisi, the capital of Georgia. Historically and geopolitically Georgia has always existed on the crossroads from Europe to Asia, which was beneficial to its economic development, especially trade (it was, in particular, one of the countries where the famous Silk Road passed). It is quite natural, that in such circumstances Georgia has always been multicultural and tolerant, hospitable and friendly. IBSU, from the day of its foundation, has always paid much attention to the realization of its mission, which deals with promoting the development of Georgian and global cultural values, establishing and maintaining friendly relationships between nations.

Educational programs taught at IBSU are selected as, on the one hand, those on which there is a great demand and, on the other hand, those that provide the development of international relations. In the table below you can see the list of these programs.

Table 1. Programs taught at IBSU

Faculty	Directions	
	BA	MA and Ph.D.
1- Business Management	1- Management 2- Finance and Banking 3- Marketing 4- Accounting 5- Tourism Management	1- Management 2- Finance and Banking 3- Marketing 4- International Tourism
2-Social Sciences	6-Law 7-Economics 8- International Relations 9-International Economic Relations	5-International Relations and Politics
3-Education	10- English Language and Literature 11- Primary Education	6- English Language Teaching 7-Pedagogy
4-Computer Technologies and Engineering	12-Computer Technologies	8-Computer Sciences
5-Humanities	13-American Studies	9- American Studies 10-Turkish Language and Literature

IBSU students are a friendly and multicultural mix. All students are treated equally and fairly, irrespective their gender, race, ethnicity, religious belief or scientific viewpoint. Below find some information about the composition of students.

Admission of students:

- For Georgian citizens - through Unified National Exams. This exam is especially beneficial for students from regions. It permits to avoid corruption. However, students' real abilities are not quite reflected in results.

- For foreign citizens – no admission exams to Bachelor studies, for Master and Doctoral studies - “inside” exams (specialty and English). Package of documents (main - certificate/diploma with Apostil and photocopy of whole passport) is checked by Ministry of Education/Accreditation.

This makes it easy for foreign students to enroll in IBSU programs. Tuition fees do not differ for Georgian and foreign students, however, Georgian students can obtain grants as result of Unified national exams.

Table 2. Student profile: gender composition

	BA	MA	Ph.D	Total
Male	477	29	9	517
Female	399	33	13	443
Total	876	62	22	960

Table 2. Student profile: citizenship

	BA	MA	Ph.D.	Total
Georgian	812	56	16	884
Foreign	64	6	6	76
Total	876	62	22	960

Figure 1. Composition of IBSU alumni

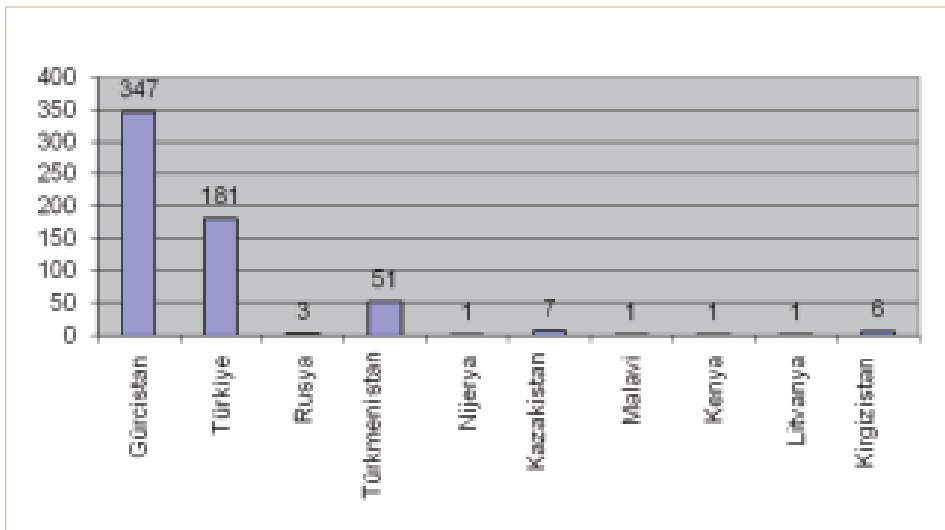
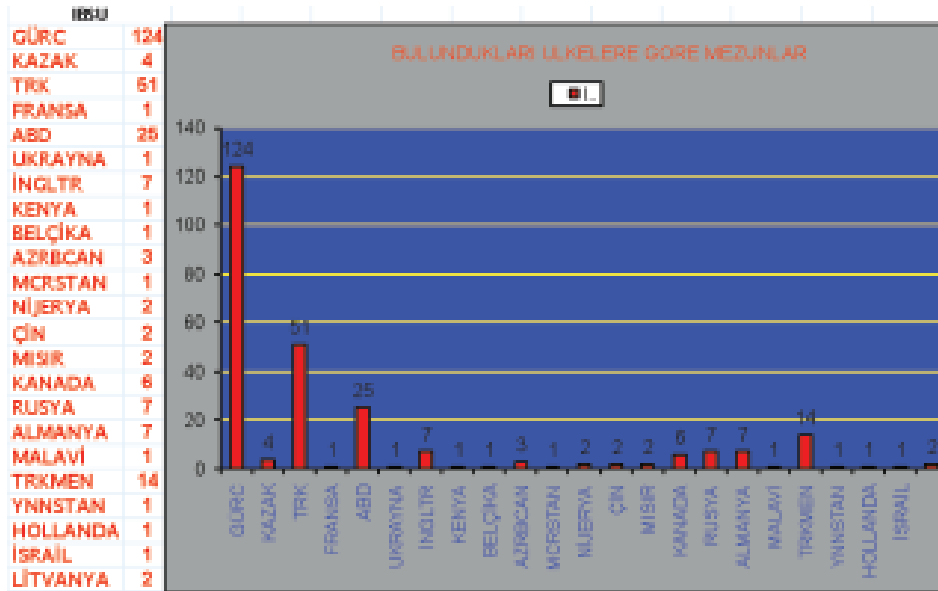


Figure 2. Countries where IBSU alumni work



IBSU staff, like its graduates and students, is international, friendly and helpful, their English skills are native-like level, their professional qualification is also high (most of lecturers possess a Ph.D. degree), which is provided by a strict election procedure. Our lecturers' professionalism answers to international standards, most lecturers have some Western job experience or part of education obtained in the Western countries. This especially concerns MA and Ph.D. lecturers.

Table 4. : IBSU personnel

Prof., Dr	Assoc. Prof., Dr.	Other academic personnel	Administrative personnel	Total
16	20	50	55	141

IBSU is probably the best place in Georgia where you can meet so many top level officials from Georgia, Turkey and other countries. IBSU was opened by the President of Georgia and the Prime Minister of Turkey in accordance with the decree of the Council of Ministers and the License of Opening given by the Ministry of Education of Georgia in 1995. Since then meetings between top officials, academic staff and students has become a tradition. Some meeting are rather informal, so that students can benefit from personal acquaintances in their future careers. Also, students get freshest information at first hand. In October 2007, for instance, IBSU was visited by President of Turkey Abdullah Gül, President of Georgia Mikhail Saakashvili and a group of Georgian and Turkish Parliament members.

As Georgia is a Silk Road country, IBSU has as its component a Scientific-Research Silk Road institute, which annually organizes Silk Road International Symposia. The first symposium was held in 2003. Outstanding politicians and scientists from Georgia, Turkey and many other countries take part in this scientific event dedicated to various economic, political, educational and cultural issues.

IBSU international students and staff study and work together, which creates a good environment for personal friendships and professional links which do not stop after they leave IBSU. All foreign students and staff help Georgian students and staff to better understand their cultures. After they return home, they become people's ambassadors of Georgia to other countries, and, frankly speaking, they are doing this job well. To provide still deeper mutual understanding, IBSU arranges cultural trips in Georgia and in Turkey for students, academicians and staff for strengthening their relationships. Various social events (excursions, concerts, picnics, performances, sports competitions, etc.) are organized with participation of Students' Council, where cultural values are shared in a natural, informal environment.

During last three years especially, IBSU has become a mediator, which connects various Georgian and Turkish universities, helps them meet each other and establish agreements on cooperation. Tbilisi State University, for example, this year has opened a Turkish Study Master program, supported by Ondokuz Mayıs university in Samsun. IBSU arranged a trip for Rector of Tbilisi State University Mr Giorgi Hubua to Ondokuz Mayıs university where they signed an agreement for Turkish studies program for master students. IBSU helped the Rector of Sukhumi university and rector of Telavi university to visit Aydın Adnan Menderes University.

IBSU arranged summer training courses in Turkey in banking and Turkish Language:

- 50 students, summer of 2008
- 90 students, summer of 2009

- This year more than 100 students will go on training to Turkey.

IBSU has opened 5 friendship language centers in some Georgian universities:

- Sukhumi State University
- Telavi State University
- Rustavi Rvali private University
- Gori State University
- Georgian Technical University

IBSU is planning to open two more friendship language centers next year where students will have a corresponding learning environment, educational materials and highly qualified teachers to learn Turkish, English and other languages.

IBSU is a member of International Universities Association: 5 universities in Georgia (IBSU), Azerbaijan (Kafkaz University), Turkmenistan (International Turkmen-Turkish University), Kazakhstan (Suleyman Demirel University) and Kyrgyzstan (International Atatürk-Alatoo University).

IBSU has agreements:

- Of double diploma with:
- Troy University (USA)
- Zürich Technical University (Switzerland)

Of co-operation with the following Georgian Universities: I. Javakishvili Tbilisi State University, Sokhumi State University, Telavi State University, Rustavi Rvali University. It is continuing signing such agreements. IBSU admitted free of charge, as exchange program, two students for spring semester from each university with which it has agreements of friendship. In 2009-2010 spring semester 10 students have taken courses from IBSU. 5 students from each friendship university, totally 30 students will go to Ondokuz Mayıs university for Turkish language practice this summer through IBSU mediation. Ondokuz Mayıs university, in its turn, will send 30 students to IBSU for English practice.

IBSU arranges for its students an extracurricular Georgian language certificate program for Turkish students and an extracurricular Turkish language certificate program for Georgian students free of charge.

Thus, for its short 15-year history, we hope IBSU has done its best in fulfillment of its mission of establishing and maintaining friendly relations between Georgia, Turkey and many other countries. Now IBSU has grandiose plans – in our scale, of course. A university which started from a few dozens of students and has reached the number of 1,000 students, which started from sharing a floor with Demirel College and has moved to two buildings, these plans are grand. We are building a new campus for 5,000 students which hopefully will start functioning in one year and we hope that even its site is symbolic – not far from Tbilisi International Airport. This campus will enable us to make even a more impressive takeoff in the job we have been doing all this time – in the matter of developing friendly relationships between neighboring countries.



Tbilisi, the capital of Georgia



Current campus of IBSU



The visit of President of Turkey Abdullah Gül, President of Georgia Mikhail Saakashvili

Prof. Irine Darchia

Vice-Rector, Tbilisi State University, Georgia



Innovative Education and Perspectives of International Collaboration at Ivane Javakhishvili Tbilisi State University

Ladies and gentleman, Dear friends and colleagues,

It's my pleasure to represent Tbilisi State University, TSU as we call it, which is the first Georgian university, since 1918. This is the first higher educational institution in the south Caucasus, not only in Georgia. It is a big owner and a big challenge at the same time.

In order to understand the educational system of Georgia, its current situation, the challenges we face, the perspectives for further development and international collaboration we should have a quick look to the reforms done by the country, the educational and research area during the last 5 and 6 years.

In 2004, the new and revolutionary we should say law of the higher education of Georgia has been adopted by the parliament of the country and we started the new era of development. Georgia became a member of the Bologna Process in May 2005 up to the ministerial meeting Bergen. And we started the preparations for 2010 when building of achievements, so far in the bologna process we have just established and announced a virtual European higher education area based on the principals of quality and transparency, but it is a big process, a big challenge and it still continues. Not only in Caucasus, a region between Asia and Europe but also in most Western European countries there are many opponents of the Bologna Process, and we had a small discussion at the beginning of the conference, but in any case we should remember that the Bologna Process is a discussion, a problem, sometimes it's an obstacle, but at the same time it is a challenge and a hope. It is a unique chance for Georgia and for some other countries of the former soviet pasts to become a member of a Europe of knowledge. Up to the new law of higher education of Georgia and after the Bologna process some fundamental changes have been done in my country.

In my speech I will try to point out some most important changes. The new admissions system for the students of Bachelor and Master Studies at all accredited universities organized by the national examination center, which guarantees the transparency and objectivity of the admissions process, there is no chance for corruption. The new admission, the new funding system for the state universities; Student orientated not university orientated funding system that we had before. That is the state money goes not directly to the university budget but indirectly through student state scholarships, so called vulturous. The new system increases the possibility of the university to become better, in order to attract more students with state scholarships or with private tuition fees. The new funding system of research in all fields; project based, research outcome orientated, and not researcher or scientist orientated approach as it was before. Implementation of internal and external quality assurance systems; start of so called institutional accreditation, organized by the national accreditation center and preparation of so called program accreditation, which will assure the high quality of all our study programs according to European and generally to international standards. Our further institutional accreditation; the number of the universities reduced from 200 to 70, you can imagine what happened in the country. Implementation of ECTS credits as

a main tool for student's mobility, the new 3 level structure of curriculum, increasing of student mobility on national and international level, Implementation of so called high professional study programs, in the frame of Bachelor studies, and implementation of lifelong learning.

What can be said about our university and the contacts of the Bologna process and national reforms in higher educational system of Georgia? We have close academy contacts and bilateral agreements with over 100 universities of the world and we put special emphasis on international collaboration, teaching and research quality developments. TSU is one of the largest research universities in Georgia, with over 18.000 students and 6 big faculties; faculty of humanities, natural sciences, social and political sciences, economics and business, law and medicine. There are approximately 700 full time and approximately 600 part time professors, more than 600 administrative staff. After the reforms, the university management system has been changed. The academic ward and council representatives with their chairman the rector and the speaker, the head of administration, so called chancellor and the administration staff and the administration of itself, the quality assurance service, the student self government are the main and democratically governing bodies of the university.

We are running more than 50 bachelor, 100 master and 60 doctoral programs, 3 high professional study programs in arts, more than 20 lifelong learning programs, offering certificates for adults in teacher education, economics, business, arts, languages etc. We have the biggest number and variety of study programs, from one side traditional fundamental disciplines, from the other side new labor market orientated curricular, offering good possibilities for employment. According to the official statistics, TSU is in the first place in Georgia according to the number of student applications for first choice. At the same time we have the biggest number of state scholarships for bachelor and master studies. It means that the Georgian students with the highest intellectual potential are coming to our university. We offer good opportunities for our students for their personal developments. There are 2 students' theatre troops, groups of folk music and dance, basketball teams, etc. At the same time we have our own newspaper, publishing house and the biggest university library in Georgia, more than 4 million books and e-journals as well.

I would like to pay your attention to the so called junior university or Kids University, where lectures in different fields are offered by our professors to the pupils of different high schools of Georgia. As mentioned before, TSU is the biggest research University of Georgia, with the biggest number of scientific projects founded by the national scientific foundations and in general, we run more than 150 scientific projects funded by different national and international organizations. More than 80 international conferences have been organized at our university during the last 5 years. Our academic staff has the highest index of citation in the country, according to Thompson and other official scholar statistics. We are the leader with the number of members and corresponding members of the academia of sciences of Georgia.

I would like to pay your attention to the quality assurance strategy that the university has. There are program specifications that are some strict regulations for development and approval procedures for all study programs. The anonymous peer-review made by Georgian international scholars and experts open discussion with potential employers with the stakeholders concerning the contents and structure of the curricular frequently used in order to improve the teaching process. We also use the student's questionnaire for the evaluation of all courses done by our professors.

Since this semester, we have special software which allows us to have a student's feedback on line, electronically. For all students TSU puts emphasis on the following; in-depth knowledge on the major field of study, inter disciplinary and multi disciplinary approach to teaching and research, skills in communication and critical thinking, global perspectives gained from international exchange programs and we are lucky to have quite a good number of such exchange programs in Turkish universities as well, responsible citizenship, and the understanding of ethical norms.

What can be said about the structure of our curricular and why they should be attractive for international collaboration?

Our study programs tend to be as flexible as possible, offering a big number of compulsory and elective courses and modules. We shifted from professor orientated teaching to student centered curricular. Each student has the possibility to prepare himself or herself his or her individual study plan based on curricular framework of course. Each student has a possibility to choose not only some courses or modules but the whole study program or programs combining so called major and minor field of studies. The content of the curricular tend to be orientated on learning outcomes on so called subjects specific and general transferable skills or competence scales and requirements of the labor market. But in this point there are still many things to do. We made a big effort to implement the so called tuning methodology development in the framework of the Bologna process. Nowadays TSU is running 17 international programs, study programs in different foreign languages in order to attract international students. Some of them are in collaboration with famous European universities and are offering so-called joint dual degrees.

I give you some examples; on bachelor level, the computer sciences in French, Partner is the University of Paris 8 and University of Versailles, Caucasian studies, Russian language, this program in computer science is offering joint so-called dual degree with the University of Versailles. Other programs in Russian, they are Caucasian studies, Russian language and literature and journalism. On master level; Economics and Tourism and hospitality management; partner is the technological University of Thessaloniki, public administration, partner is the public university of public administration, Speyer, Germany; European studies; Partner University of Grenoble, France, University of Innsbruck, Austria, Pandion University of Social and Political sciences of Athens, Greece. Gender studies; Partner is Central European University, Hungary; transformation in south Caucasus, Partner is Oxford University; Medical molecular biology by flexible learning, Partner is the University of Westminster, UK and this program is also offering dual degree. General Law; partner is University of Koln, LL.M of Koln at TSU, this is a degree offered by this program. Social work; Partner is University of Sheffield, UK, offering also a dual degree. Language of instruction of all these are in English. On doctoral level: Law in German, Tourism and Hospitality management, economics, computer sciences in English, European literature in French and many subjects such as this offering dual or multiple degrees.

I decided to mention all these study programs as an example of best practice, some kind of success story. To show the positive experience already existed at our university and point out one of the possible priorities and future directions of the collaboration with universities of the Silk Road. Our university is open to identify the possible fields of such collaboration and to find ways of development and implementation of joint study programs offering joint dual or maybe multiple degrees with the universities presented at the conference of Erzurum.

The administration of our university puts emphasis on IT technology, in teaching, research and management. There is one computer for 12 students, while the national standard requirement is 1 computer for 25 students. The electronically learning management system, so called LMS model, an open source, a very good tool for universities of not so rich countries, as Georgia. Nowadays we have more than 100 e-courses, and we developed all of them during the last 2 years. These courses are very good basis for the development of distance learning, which is a necessary tool for international collaboration and joint study and research projects. The doctoral education is one of the priorities of TSU. We have quite strict regulations for our PhD candidates in order to assure a high standard education and internationally recognized degree. For example, publication in widely recognized journal with a so-called high impact factor or international peer review journal or a positive peer review of an anonymous foreign expert is obligatory, prerequisite to obtaining a PhD at our university.

Nowadays we are going to establish the regional doctoral school. While concluding my speech I would like to say a few words about it. The objectives of the regional doctoral school are as follows; supporting south caucuses' states and implementing western systems in vocation, technology and management. Supporting south Caucasus' region in a reforming higher education system, development of some sustainable doctoral vocation in our countries, establishment of multi cultural atmosphere of teaching and research which is crucial for the region, improvement of the inter regional communication between fresh researches and initiative involvement in academic discussions, improvement of interdisciplinary communications on the regional level, major of teaching research components, quality assurance of regional doctoral vocation, deepening international cooperation, raising the trust of international community toward regional science. Expected results of the doctoral school will be as follows; creation of PhD curricular, including more than research

methodology, creation and launching of transferrable skills, organization of disciplinary round tables and conferences for the regional PhD students, formation of the regular regional scientific peer-review journal, establishment of joint, double or multiple degrees and collaboration with other universities, establishment of special quality assurance procedures and mechanism with full doctoral studies. I think that the idea of the graduate school is absolutely applicable for the Eurasian Silk Road Universities and maybe this conference can be used as a good starting point for the collaboration in this direction as well.

I tried to point out the strong side of the innovative education we are offering to our national and international students. But there are some weak points which should be mentioned as well. A sufficient connection with the labor market of our curricular, we are fighting for this but we still have to do many things. Small number of international students because of the political problem we had in the new future, fortunately these problems are solving now, Georgia is a peaceful country but it was quite difficult 2-3 years ago. And there is another problem, a lack of national funding for doctoral studies due to the economical problems of the country. Despite the existing problems the 3 level reformed curricular, internal and external quality assurance mechanisms, use of IT technologies and teaching research, dual degrees recognized internationally, intensive courses done by prominent foreign professors, joint research and collaboration with the best research universities makes TSU an attractive partner for intensive international collaboration.

Now I would like to point out so called collaboration with so called universities. Joint study programs offering joint, dual or multiple degrees, joint research project and international regional doctoral schools in different fields, student and academics staff mobility, collaboration in internal and external quality assurance mechanisms. I think that this idea of a consortium of Silk Road universities has a big future and I am very glad and happy that I had a chance to take part in this process from the very beginning.

Thank you very much.

MAY 30, 2010 SUNDAY

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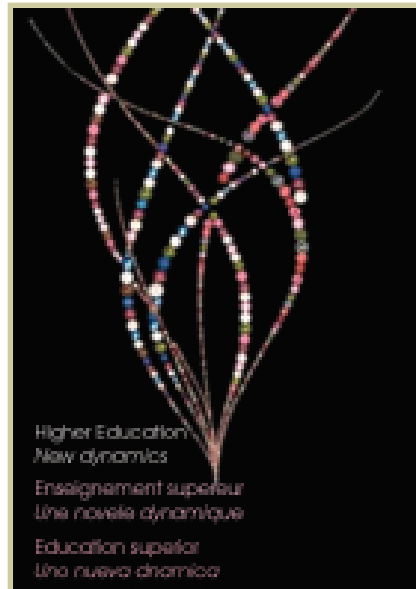
New Dynamics and Trends in Higher Education

Abstract:

This paper will focus on the New Dynamics and Trends in Global Higher Education and will mainly rely on findings of UNESCO's "2009 The World Conference on Higher Education" which held at UNESCO headquarters in Paris on the theme of "The New Dynamics of Higher Education".

The conference identified important and emerging trends in Higher Education in the world. Therefore, I will discuss the findings of the conference and compare and contrast it with the other relevant studies.

During four days conference, which I participated in person to the discussions, many new trends and issues in higher education identified and underlined. However, I shall focus on just eight major dynamics and trends in Higher Education.



The poster of the conference

I. Introduction

As the globalization's forces shakes the world and especially their economies, it is an imperative for higher education institutions and governments to understand the realities of globalized world and the new dynamics of higher education in the 21st century. In fact, when EU leaders, convened in Lisbon in 2000 to draft what we call today as Lisbon Strategy, their major aim were to make the EU "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion," by 2010.¹

Today, witnessing the global economic crisis in the world and in Euro zone, we can understand and appreciate the vision of EU leaders. Therefore, UNESCO "2009 World Conference on Higher Education" was very timely and important. More than 1,000 participants, including about 100 ministers or vice ministers of education participated the Conference and discussed the latest developments in higher education, namely, the increasing demand for higher education, diversification of higher education sectors, impacts of information and communication technologies on education and research, globalization, and issues of access and equity. More important, with the number and diversity of participants, the conference gave voice to regional and national specificities. In fact, the World Conference was preceded by six regional conferences over the last decade. These conferences were held in Cartagena de Indias for Latin America and the Caribbean; Macau for East Asia and the Pacific; Dakar for Africa; New Delhi for South Asia; Bucharest for Europe and North America; and Cairo for the Arab States.

The south Asia region countries, for example, focused mainly on "social responsibility and higher education" and on "the importance of community-based research". Inter-disciplinarity was described as a key to knowledge advancement. Both the Latin American/Caribbean and African presentations, on the other hand, focused on "the development of academic networks within their respective regions".

Philip G. Altbach, professor and director of Boston College's Center for International Higher Education, presented a trend report prepared by the center at UNESCO's request. The report is titled "Trends in Global Higher Education: Tracking an Academic Revolution." Interestingly, at the outset of his report, he underlined a definition of globalization, which he hopes can help us to understand the "Trends in Global Higher Education".

He considers "globalization" as "a key reality in the 21st century" and has already profoundly influenced higher education. He defines globalization as "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". Moreover, he defines internationalization as "the variety of policies and programs that universities and governments implement 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". He argues that although "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", the dynamics of "21st century realities have magnified the importance of the global context".²

In the conference communiqué, it is underlined that higher education is "a public good and a strategic imperative for all levels of education and as the basis for research, innovation and creativity". Therefore, "higher education must be a matter of responsibility and economic support of all governments". It declares that "at no time in history has it been more important to invest in higher education as a major force in building an inclusive and diverse knowledge society and to advance research, innovation and creativity".

¹ European Union Parliament Website Lisbon European Council 23 and 24 March Presidency Conclusion:
<http://www.europarl.europa.eu/summits/lis1_en.htm>

² Philip G. Altbach, "Trends in Global Higher Education: Tracking an Academic Revolution".
< <http://www.unesco.org/tools/fileretrieve/2844977e.pdf> >

Moreover, the evidence indicates that "higher education and research contribute to the eradication of poverty, to sustainable development and to progress towards reaching the internationally agreed upon development goals, which include "the Millennium Development Goals" and "Education for All".

Therefore, it called all participants, decision-makers and stakeholders that their strategies and proposal regarding "the global education" in general and "higher education" in particular, should reflect "these realities" of globalized world of 21st century.

2. Eight Dynamics of Higher Education

It was interesting and eye-opening to observe that many national and international institutions, also conducted similar studies and to our surprise they almost reach similar findings regarding the changing nature of higher education and the forces behind this change. A good example is OECD's studies on the subject.

Angel Gurría, OECD Secretary-General summarized the OECD's perspective. According to Gurria, three simple tasks of Higher Education are "Ensuring access and equity, improving efficiency and effectiveness, and raising quality and relevance".

He underlined that "higher education should be available to all who can benefit from it. It is one of the best investments one can make". Furthermore, we have to "ensure equity between social groups".

The second priority area is efficiency and effectiveness. In this context, he also brings to our attention "the international dimension" of higher education institutions are which are not confined by national boundaries.

Gurria also underlined the global character of change and underlined that "globalization of higher education can foster an exchange of cultures and ideas, opening minds, creating mutual understanding. It can also lead to closer economic links, more trade, more investment".³

However, here, we will identify and discuss the eight dynamics that came out of the UNESCO's conference debates.

1. Rising demand and massification
2. Diversification of providers and methods
3. Private provision
4. Distance education
5. Quality assurance
6. Cross-border Higher Education
7. Teacher Education
8. Academic profession

2.1. Rising demand and massification

The first dynamic is rising demand for higher education's role in constructing the knowledge society in a globalized world. A good and quality university degree and diploma have become passports to a good future. Therefore, the demand for higher education has been growing rapidly in developing and developed countries alike. This is why massification was regarded as a "dominant trend" It is indicated that, globally, "age participation rates in higher education have grown from 19% in 2000 to 26% in 2007. There were 150.6 million students enrolled in tertiary education worldwide in 2007, which represents a 53% increase over 2000".

³ http://www.oecd.org/document/16/0,3343,en_2649_37455_43264400_1_1_1_1,00.html

The African Ministers of Education underlined during the debates that their average participation to higher education is about 6%, however, there were also optimism regarding some improvement. Even in low income countries these percentages were much lower and "rose from 5% in 2000 to a modest 7% in 2007. This means we can expect continuing rapid growth in those countries".

Sir John Daniel, President & CEO of Commonwealth of Learning, make a considerable contribution with his concept of the "iron triangle" of PSE -- the demand for Access (higher), Quality (higher) and costs (lower). He argued that to insist on "the revolutionary role that technology can play in ensuring that the massification of higher education occurs with higher quality and lower costs".

According to him "the nature of the challenge is clear when you create a triangle of vectors. With traditional methods of face-to-face teaching this is an iron triangle. You want to stretch the triangle like this to give greater access, higher quality and lower costs".

This iron triangle, Daniel argues, "has hindered the expansion of education throughout history. It has created in the public mind – and probably in your own thinking – an insidious link between quality and exclusivity. This link still drives the admission policies of many universities, which define their quality by the people they exclude".

"But today there is good news. Thanks to globalization successive waves of technology are sweeping the world – and technology can transform the iron triangle into a flexible triangle. By using technology you can achieve wider access, higher quality and lower cost all at the same time. This is a revolution – it has never happened before".⁴

2.2. Diversification of providers and methods

Underlining the rising demand for higher education in developing and under-developed countries, it is also emphasized that we cannot respond to these challenges just "relying on traditional approaches based solely on public universities". As a result of this global demand, "a multitude of new providers of higher education is emerging". As a result, many governments regulated their system to encourage the foreign direct investment for education. A good example of this is India, which allowed 100% foreign direct investment in education in 2001.⁵

Another major recent trend is the creation of so-called 'World-Class' Universities. In some countries these are designated by governments; the China 211 and 985 projects and the Brain 21 programme in South Korea being examples. India also allowing foreign universities - such as Harvard, Yale, the Massachusetts Institute of Technology (MIT), Stanford, and the London School of Economics - to open campuses in India, thus establishing inexpensive (because of competition from Indian institutes) but excellent educational institutions. Most of these institutions have already declared their interest in setting up campuses in India. Denmark-based Egmont Imaginations has already submitted a proposal to the Indian government to set up 200 playschools.⁶

2.3. Private provision

Another dynamic is "*the corporate structures of higher education*".⁷ Private higher education is now the fastest growing sub-sector and some 30% of students are enrolled in private higher education institutions globally. Some countries (Japan, South Korea) enroll 80% of their students in private higher education institutions and in parts of Latin America these percentages reach 50%. In Turkey, there are also a mushrooming of foundation[private] universities in recent decade. Presently, we have 94 public universities and 51 foundation

⁴ Sir John Daniel, "New Dynamics of Higher Education; New Dynamics of Distance Education": <<http://www.col.org/resources/speeches/2010presentation/Pages/2010-05-21b.aspx>>

⁵ Siddharth Srivastava, "India's million-dollar education question", <http://www.atimes.com/atimes/South_Asia/HI22Df02.html>

⁶ *ibid.*

⁷ Wissema also underlined this dynamic of higher education in his book: *Towards The Third Generation University: Managing the University in Transition*, Edward Elgar Publishing: Cheltenham, 2009.

universities. However, the percentage of students registered to foundation universities is still around 5%. the Conference call to decision-makers was "to include the private sector in all quality assurance arrangements".

2.4. Distance education

Modes of teaching and learning are also identifies as a new dynamic in higher education. Needles to say, "applications of ICTs have impacted higher education significantly" in recent decades. On the other hand, "open universities are multiplying around the world and are increasingly powerful players in national higher education systems". In Turkey, for example, Anadolu University's Open programs, with students and inclusive and dynamic curricula is an important response to growing demand for higher education at home and abroad alike. Surprisingly, 44% of students in Turkish Universities registered to Anadolu University. Moreover, Turks who live outside of Turkey, on six different continents and 12 different countries registered to the programs of Open University. Let me remind you that approximately 3 million Turks live in Germany.

2.5. Cross-border Higher Education

Another dynamic and trend is "a steady increase in cross-border higher education" which defined as higher education that occurs when *'the teacher, student, programme, institution/provider or course materials cross national jurisdictional borders'*.⁸ However, cross-border higher education can take different forms, ranging from branch campuses and franchises of universities offering courses abroad to eLearning across borders, as we witness in many parts of the world.

Sir John Daniel, who also participated the conference and debates, underlined that "cross-border Higher Education, if regulated properly, as it is in China, offers great opportunities for capacity building at institutional level both in teaching and learning". He gave as the good example of the University of Nottingham, Ningbo, China, a cross-border provider representing a partnership between the University of Nottingham in the UK and the Zhejiang Wanli Education Group – University in China as.

He also cautions that "in the absence of regulation as in China CBHE easily lends itself to fraud and low quality provision, the most striking example being degree mills that sell diplomas for money".⁹

2.6. Quality assurance

As a result of above-mentioned dynamics, quality assurance (QA) is considered as "one of the most striking new developments" since UNESCO held its previous World Conference on Higher Education in 1998. This new emphasis on QA was reflected not only in the conference Communiqué but also in both political and academic debates during the Conference. Moreover, UNESCO has prepared the ground for this process of internationalisation through the standard-setting tools, i.e., "the Conventions for the Recognition of Degrees" and "the 2005 Guidelines for Quality Provision in Cross-Border Higher Education".

2.7. Teacher Education

The growing challenges of teacher education within higher education were highlighted as one of the global trends and underlined in Conference Communiqué in these words: "Our ability to realise the goals of EFA is dependent upon our ability to address the worldwide shortage of teachers. Higher education must scale up teacher education, both pre-service and in-service, with curricula that equip teachers to provide individuals with the knowledge and skills they need in the twenty-first century. This will require new approaches, including open and distance learning (ODL) and information and communications technologies (ICTs). (Article 11)"

⁸ the 2005 UNESCO-OECD Guidelines for Quality Provision in Cross-border Higher Education. <
http://www.oecd.org/document/29/0,2340,en_2649_201185_35793227_1_1_1_1,00.html>

⁹ "New Dynamics of Higher Education; New Dynamics of Distance Education": <
<http://www.col.org/resources/speeches/2010presentation/Pages/2010-05-21b.aspx>>

The teacher shortage is the core challenge for underdeveloped and developing countries alike. According to UNESCO's Institute of Statistics, a global total of 10.3 million teachers should be recruited between 2007 and 2015. To achieve to targets of "the Education for All" by 2015 which governments committed to achieve, more teacher needed eradicate illiteracy and also provide lifelong learning for all. The number of teachers needed may vary greatly from country to country. However, the 96 countries that have not achieved Universal Primary Education will need to recruit 1.9 million teachers for this purpose alone. In Turkey, we need 72.668 more teacher as declared by Minister of National Education Ms. Nimet Çubukçu recently.¹⁰

2.8. Academic profession

The last but not the least dynamic was "the teaching force in higher education". As a result of above-mentioned and some other factors, we witness the expansion academic staff in various ways. Sir John Daniel enumerates the major ones as follows:

First, pressure of student numbers has required the hiring of less qualified faculty. For example, in China only 9 % of academic profession has doctorates, while in India it is 35%.

Second, the use of part-time professors is becoming more widespread. For example, in Latin America and the Caribbean, up to 80% of the faculty have part-time status.

Third, part-time faculty seek adequate salaries by working in several institutions. In particular, private higher education institutions tend to rely heavily on part-timers, some of whom are moonlighting from public institutions, which can cause tensions between the two sub-sectors.

Fourth, the academic labour market is now global. Academics migrate from poorer to richer countries. Singapore, the Gulf States, Western Europe and North America tend to import faculty whereas regions like the South Asia, the Caribbean and Africa are exporters.

Fifth, one side effect of the rapid spread of technology is that young people who are used to using digital devices in everyday life expect to use them as students – whereas many faculty continue to teach in traditional ways.

Sixth, however, ICTs provide new opportunities to expand access to quality learning and facilitate the tasks of teachers. In particular, the growing trend to develop Open Educational Resources means that academics and students will be able to draw on a worldwide pool of excellent teaching and learning material that can be fully adapted to local needs.¹¹

3. Conclusion

To sum up, the old good and golden days are over for academia. The universities which are funded by public finds cannot live in their ivory-towers. We are living in a different and ever changing globalized world.

According to Wissema, who coined the term "Third Generation University (3GU)", today our "universities are changing in a fundamental way, moving from the model of the science-based university that emerged after the Napoleonic period into what [h]e calls the Third Generation University. He argues that "the science-based university model does not function anymore" and universities are experimenting with new forms. In his book Wissema demonstrates that universities are subject to fundamental change, evolving from science-based, monodisciplinary institutions into transfunctional, 'international know-how hubs' named 'third generation universities' or 3GUs.

¹⁰ For Ms. Minister's press conference consult Turkish Daily Newspapers, May 10, 2010.

¹¹ Sir John Daniel, *ibid*.

Some of findings of Wissema also are similar to UNESCO's findings which are summarized above. To mention just few of Wissema's arguments: 1) fundamental research was and will be the core activity of the university, 2) 3GUs operate in an internationally competitive market. They actively compete for the best academics, students and research contracts from industry. Previously, universities had a de facto regional monopoly, 3) 3GUs are cosmopolitan; they operate in an international setting with a wide and diverse range of staff and students; in this respect, they are close to the Medieval Universities. They employ the English language for all courses as the new lingua franca, rather than the national tongue as used in the science-based university, 4) 3GUs will become less dependent on state regulation. State financing will no longer be direct but the state's funds will be transferred through independent institutions that finance research and education.

In short, there is no doubt that we are witnessing new dynamics and trends in Higher Education in the world. Any institution or government which do not understands these dynamics and trends cannot compete with "the most competitive and dynamic, knowledge-based economies" of developed countries. Moreover, higher education is "a public good and a strategic imperative for all levels of education and as the basis for research, innovation and creativity". Therefore, "higher education must be a matter of responsibility and economic support of all governments".

Moreover, the evidence indicates that "higher education and research contribute to the eradication of poverty, to sustainable development and to progress towards reaching the internationally agreed upon development goals, which include the Millennium Development Goals and Education for All.

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Collaborative Learning in Higher Education

Al-Azhar University, since the fourth Hijri year, is the oldest Islamic University in the world. Not only is Al-Azhar University concerned with the religious syllabus but, it also teaches all the modern scientific fields of science. It aims at providing the world with scholars and experts, well equipped with Islamic culture and moral, and well prepared to serve their societies, and play their role in building their countries on faith and scientific basis.

In the age of globalization, new approaches are pursued for improving the quality of higher education. In Al-Azhar University, we adopted the collaborative learning approach.

So what is collaborative learning?

Collaborative learning (CL) is a team process where members support and rely on each other to achieve an agreed upon goal. CL is a personal philosophy, not just a classroom technique where people come together in groups in a way which respects and highlights individual group members' abilities and contributions.

The entire focus of collaborative learning is to actively involve students in the learning process. Whenever two or more students attempt to solve a problem or answer a question they become involved in the process of exploratory learning. They interact with each other, share ideas, seek additional information and present their findings to the entire class.

Rockwood (1) describes the difference between collaborative and cooperative learning as follows: "The major difference lies in the fact that cooperative learning deals exclusively with traditional knowledge while collaborative learning ties into the social constructivist movement" And further: "Most importantly, in cooperative learning, the authority remains with the instructor, who retains ownership of the task, which involves either a closed or a closable problem. In collaborative learning the instructor once the task is set-transfers all authority to the group. In the ideal case, the group's task is always open ended. So, the instructor becomes a facilitator instead of a director and the student becomes a willing participant instead of a passive follower. Accordingly, to improve our education system, we focus on the collaborative method rather than the cooperative one.

This is for example applied during a lecture where an instructor begins by facilitating a discussion and suggesting alternatives but does not impose solutions on the team. The team members work collaboratively in order to resolve conflicts and all group members are actively involved. So, this method enhances positive interdependence, individuals' accountability, interpersonal skills and face-to-face interaction. Through the interaction with students in each class, the teacher gains a better understanding of each student's learning style and how he/she performs.

Collaborative Learning: Group Work & Study Team

Students learn best when they feel actively involved in the learning process. Regardless of the subject matter, students working in small groups tend to learn more of what is taught and retain it longer than when the same content is presented in other instructional formats. Students who work in collaborative groups also appear more satisfied with their classes ⁽²⁾. There are some distinctions among various names which have been given to this form of teaching including: collaborative learning, collective learning, learning communities, team learning, study circles, study groups and work groups. However, there are three general types of group work, namely, informal learning groups, formal learning groups, and study teams ⁽³⁾.

Project-based collaborative learning

Project-based collaborative learning is an active, problem-entered approach to teaching and learning. As the name implies, it is a fusion of two related approaches: Project-based learning and collaborative learning.

Project-based learning requires the student to engage in design, problem-solving, decision-making, and investigative activities, often resulting in an artifact or product. Collaborative learning involves joint intellectual effort by groups of students who are mutually searching for meanings, understanding, or solutions ⁽⁴⁾.

Both approaches require organization and driving activities and to encourage application, analysis, and synthesis of course material. The fusion of these two approaches can be characterized simply as people working together to create something and to meet certain learning objectives through the process. This context yields an ideal yet complex territory for support with technology tools. Tools are currently available that can:

- Facilitate real-time and asynchronous text, voice, and video communication.
- Assist in basic project management activities, like task management, calendaring, world flow planning and routing, and time tracking;
- Facilitate consensus building through group discussions and pooling;
- Support co-creation by enabling groups to modify output in real-time
- Simplifying and streamline resource management in terms of basic file sharing, in addition to more advanced features like search, tagging, version tracking, privilege management, and so on.

While the landscape of technology that can be used to support central activities of project-based collaborative learning is vast and varied, it is often lumped together under a single label: “Collaboration tools” ⁽⁵⁾.

Collaborative provision

Collaborative provision provides valuable opportunities for students to experience higher education in their local area. The benefits were weighed against the cost of investment in collaborative links in both terms of money and “opportunity costs”. The success of collaborative provision depends in part on the quality of learning materials available and the support provided by academic staff; hence it is important that staff is properly trained. In addition, the use of virtual learning environments and other elements of e-learning technology, for example on-line libraries, were thought useful in supporting students on such programs. Student representation and feedback was regarded as an important mechanism in terms of assuring the quality of student learning opportunities. Different mechanisms for achieving this include questionnaires, staff-student liaison committees and feedback through program committees ⁽⁶⁾.

Al-Azhar sends some of its staff from time to time, to catch up with the most recent discoveries and developments in all the different scientific and academic fields. It also provides periodic workshops to ensure that the staff is properly trained. The university provides virtual learning environments and other elements

of e-learning technology such as online library. And to further involve the students in the education improvement process, different mechanisms are used such as: questionnaires which evaluate courses and professors and also through feedback committees.

Collaboration in higher education and its benefits to information communication technology ICT

Collaboration within higher education, particularly in research, has long been part of accepted practice, often driven by the scale of the challenge but usually from a desire to impart knowledge and experience as widely as possible. The information and communications technology (ICT) community in higher education shares in and benefits from this spirit of collaboration both in terms of creating leading-edge infrastructures and through a free exchange of knowledge and experience ⁽⁷⁾. This has been the case since the early days of computing, but the Internet and the World Wide Web have greatly enhanced this beneficial interchange. More recently, the open agenda has promoted benefits to research, education, and society in general through open sources software, open standards, open access to search outputs, and open educational resources. Many opportunities lie ahead for more open, extensive collaboration and accompanying benefits for ICT, including through use of virtual research environments and computing services. The growth in research collaboration, usually international, stimulates developments in ICT infrastructure, for example the internet, the World Wide Web, high-performance computing, and data mining techniques. Virtual communities of researchers, formed from groups of sometimes over a hundred and occasionally many more, rely on a common network infrastructure and access to common resources such as large-scale computers, remote instruments and sensors, data bases and software tools and applications – variously referred to as virtual research environments or laboratories.

It is necessary to build a new profession of research technologists to support collaborative research, identify generic approaches to collaborative research, provide training for researchers and enhance appropriate technical infrastructures beyond the existing network, communication tools.

Group decision support systems GDSS are a relatively heavily investigated category of collaboration technology. They combine communication, computing, and decision support technologies to facilitate formulation and solution of unstructured problems by a group of people ⁽⁸⁾. Research has shown that these systems increase the quality of decisions, facilitate more equal participation, and encourage groups to stay focused on tasks. However groups using GDSS take longer to reach a decision, achieve less overall consensus, and less satisfaction with the decision – making process and outcomes ⁽⁹⁾.

Higher Education in the age of globalization

The aspect of the current internet-driven wave of globalization may be described as the educational policy internationalism by the increased convergence of policy approaches of national governments, which is nowadays facilitated by the rapid ease of global communications. The spreading of policy imaginaries by national decision-makers and the widespread borrowing of education policies by the developing countries predicated on global comparisons support global convergences in governmental policy prescriptions.

The inclusion of higher education in the globalizing policy agendas of multilateral organizations opens up the possibility for an increasing measure of convergence in higher education policy discourses. Policy convergence under the pressurizing influence of emerging global “templates” may be an even greater challenge for new higher education systems and institutions in developing countries. This is because of the frequent lack of capacity to contextualize and mediate relevant elements from powerful global “Prescriptions” for social and economic development. The potential of such templates for distracting attention from pressing local challenges is also great.

The politics and practicalities of connecting the local and the global higher education becomes an even richer field of research as higher education change spreads beyond countries of high and middle income to the least developed economies of the world ⁽¹⁰⁾. To benefit from the scientific activities and contribute towards scientific progress, it is necessary to establish academic relations between AL-AZHAR University and the Universities of the entire world. It is also required to have such relations with research centers and to exchange academic visits with other universities, inviting the best of scholars in their fields to deliver lectures and conduct research in all different specializations.

We already have agreements with various international institutions. The latest one was with Yamaguchi University in Japan. Our aim in the near future is to widen the scope of exchange programs to include more and more institutions.

Benefits of Collaborative Learning

There is a long list of benefits of collaborative learning. Some of these advantages are as follows:

1. Develops Higher Level Thinking Skills

Students working together are engaged in the learning process instead of passively listening to the teacher present information. Pairs of students working together represent the most effective form of interaction, followed by threesomes and large groups ⁽¹¹⁾. When students work in pairs, one person is listening while the other partner is discussing the question under investigation. Both are developing valuable problem solving skills by formulating their ideas, discussing them, receiving immediate feedback and responding to questions and comments by their partner ⁽¹²⁾.

2. Promotes a positive attitude toward the subject matter

Collaborative learning promotes a higher level of performance by students ⁽¹³⁾. Their critical thinking skill increases and their retention of information and interest in the subject matter improves. When students are successful they view the subject matter with a very positive attitude because their self esteem is enhanced. This creates a positive cycle of good performance building higher self judgment which in turn feeds to more interest in the subject and higher performance yet ⁽¹⁴⁾.

3. Encourages diversity understanding

Understanding the diversity that exists among students of different learning styles and abilities is a major benefit of collaborative learning. Lower level students benefit by modeling higher level students and they benefit by forming explanations and tutoring other students ⁽¹⁵⁾.

4. Promotes innovation in teaching and classroom techniques

Collaborative learning processes include class warm-up activities, name recognition games and group building activities, and group processing. Students work in pairs or larger groups depending upon the task at hand. Group work on content takes many forms, including pairs or groups working on individual questions, problem assignments, projects, study activities, group tests etc. Collaborative learning effectively addresses modern students to being exposed to information in short, entertaining sessions ⁽¹⁶⁾.

5. Creates a stronger social support system

Collaborative learning uses students' social experience to encourage their involvement in the learning process. Warm-up exercises and group building activities used throughout the course build a social support. The teacher plays a very active role in facilitating the process and interacting with each student. Administrators, school staff and parents become integral parts of the collaboration process, thus building into it many possibilities for support for any individual who develops problems, both academic and social ⁽¹⁷⁾.

6. Test anxiety is significantly reduced.

Competition increases anxiety and makes people feel less able to perform; on the other hand, collaborative learning creates the opposite response from students. It provides many opportunities for alternate form of student assessment as described above. This situation leads to a reduction in test anxiety because the students see that the teacher is able to evaluate how they think as well as what they know. Students are not locked into a testing format which requires memorization and reproduction of basic skills. Through the interaction with students in each class, the teacher gains a better understanding of each student's learning style . An opportunity

is thus afforded to provide extra guidance and counseling for the students or to establish alternate forms of assessment ⁽¹⁸⁾.

7. Builds self esteem in students

Collaborative efforts among students result in a higher degree of accomplishment by all participants as opposed to individual, competitive systems in which many students are left behind ⁽¹⁹⁾. Competition fosters a win–lose situation where superior student gain all rewards and recognition and mediocre or low-achieving students profit none. In contrast everyone benefits from a CL environment. Students help each other and in doing so build a supportive community which raises the performance level of each member. This in turn leads to higher self esteem in all students ⁽²⁰⁾.

8. Enhances student satisfaction with the learning experience

People by their nature find satisfaction in activities which value their capabilities and include them in the process. Effective teams and groups assume ownership of a process and its results when individuals are encouraged to work together toward a common goal, often defined by the group. This aspect is especially helpful for individuals who have a history of failure ⁽²¹⁾, passive educational experiences where the student is the receptacle for information presented by the expert teacher inherently dissatisfying.

9. Promotes students-faculty interaction and familiarity

The collaborative process enables the teacher to move around the class in order to observe students interacting ⁽²²⁾. An opportunity is created whereby the teacher can talk to the students directly or in small groups. Teachers may raise questions to help direct students or explain concepts. In addition, a national tendency to socialize with the students on a professional level is created by approaches to problem solving and about activities and attitudes which influence performance in class.

10. Develops social interaction skills

A major component of cooperative learning includes training students in the social skills needed to work collaboratively. Students do not come by these skills naturally ⁽²³⁾. Quite the contrary in our society and current educational framework, competition is valued over cooperation. By asking group members to identify what behaviors help them work together and by asking individuals to reflect on their contribution to the group's success or failure, students are made aware of the need for healthy, positive, helping interactions where they work in groups ⁽²⁴⁾.

11. Promotes positive race relations

Research into the effect of using collaborative learning with students of varied racial or ethnic backgrounds has shown that many benefits accrue from this method ⁽²⁵⁾. Alongside the Egyptian students who are studying at Al-Azhar University, there are many other students from various Islamic and European countries. Collaborative learning techniques are particularly important to those students.. Because students are actively involved in exploring issues and interacting with each other on a regular basis in a guided fashion, they are able to understand their differences and learn how to resolve social problems.

12. Encourages student responsibility for learning

Promotive interaction, a foundation principle of collaborative learning, builds students' responsibility for themselves and their group members through reliance upon each other's talents and an assessment process which rewards both individuals and groups. Students assist each other and take different roles within their groups. An emphasis on student involvement is created in the development of the processes which the group follows. The empowerment of students produces an environment which fosters maturity and responsibility in students for their learning ⁽²⁶⁾. It will be clear that collaborative learning fits very well in a constructivist approach of learning when students become actively involved in defining questions in their own language and working out answers together instead of reproducing material presented by the teacher or the text book. Only when students formulate their own constructs and solutions are they truly thinking critically.

13. Develop oral communication skills

International students, especially in the faculty of Foreign Languages and Islamic studies, benefit from collaborative learning by developing their oral communication skills through conversations and discussions with their national partners and professors. When students are working in pairs one partner verbalizes his/her answer while the other listens, asks questions or comments upon what he/she has heard. Clarification and explanation of one's answer is a very important part of the collaborative process and represents a higher order thinking skill ⁽²⁷⁾.

So, we can conclude that collaborative efforts among students result in a higher degree of accomplishment by all participants as opposed to individual, competitive systems in which many students are left behind.

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How Accountability Politics Relate with the Quality Assurance in Higher Education

ABSTRACT

Global economies have been changing rapidly for tens of years. Moreover, these changes have been taken place in unconditionally different ways and in unestimated patterns. From the point of internationalization of universities, many more students and professors have achieved mobility and activation recently. This situation establishes intercultural campus environment and multicultural learning scenes.

As culturally multi-perspective universities have been introduced by many countries, learning, living and socialization activities would be more accountable for the mobilized students as well as all academic people. Accountability has been a concerned issue in education for a long time, specifically related to the governance of educational institutions. Many researches reveal that development of higher education institutions may lead to some sophisticated accountability mechanisms and processes. This is to be regarded as one more upgraded level from that of quality feature and identification of quality for the related educational institutions.

Accountability for the Turkish universities has been a new political application. As universities in Turkey establishes accreditation acts and follow Bologna process schedules, there has been many issues for the Turkish public universities, total number of 94 now, which have been attracting international students from all over the world. Total number of international students studying in the Turkish universities in 2009-2010 year is nearly 17.000.

It has been a long time that all Turkish public universities follow quality assurance processes which is led by the Higher Education Council (Y.Ö.K). Recent improvements in Turkish higher education awaken all that, it is time for the Turkish universities to a heightened competition with several accountability mechanisms for their assessment and governance bodies as well as for their learning environments.

Keywords : Educational accountability, Governance, Quality assurance, Internationalization, Market competition.

ACCOUNTABILITY AND HIGHER EDUCATION INSTITUTIONS

Academic presidents have faced and continue to face any number of issues that produce stress, regardless of times in which they serve (Vaughan & Weisman, 1998). The presidency has grown more complicated today than in the 1960s and 1970s as the multiple roles associated with a president's position and the expectations related to those roles continue to evolve. Today, governing boards have become more intrusive in the management of the college and more political in the past, often demanding answers that past presidents were not required to answer (Fisher & Koch, 1996).

Simultaneously, the globalization of the economy and demand for highly trained workers has placed a new burden on our current academic leaders. No longer it is acceptable to the public for higher education to proclaim that their students have completed the educational process and met the requirements for a degree unless those graduates have the knowledge and skills to compete in the marketplace. Indeed, today's college presidents are held accountable for how well graduates perform at a time when they must simultaneously strike a balance between the mission of the institution and the demands of their constituency in an environment with a continually shrinking pool of resources (Kerr, 1998).

Speaking from the community college perspective, Vaughan & Weisman (1998) offer their view on the current demand for accountability on our current college administrators:

“ While accountability is a bandwagon that has made the community college trip many times before companies employing graduates want proof that graduates can perform the jobs for which they are employed. Presidents now know that, up to a point, their effectiveness can be measured by the effectiveness of the college's instructional program. They also know that legislators, employers and members of the public are asking more questions and demanding more answers regarding how the colleges are preparing a competent work force. The demand for accountability, while positive for the most part, can make the presidency more complicated than it was in the past.”

Answering the demands for a competent, skilled workforce is no simple task. However well the university or college administrator may have accomplished this lofty goal in the past, today's leaders must produce a more highly skilled graduate while responding to the demands of the marketplace and a complex democracy crying out for more participation and input into higher education policy and procedures (Birnbaum, 2000 ; Couturier, 2003).

Most importantly, these challenges must be met in an economic atmosphere in which there is a prevalent cry of inadequate resources due to the dismal states funding in our public universities and colleges ; quite simply, presidents are expected to tap new sources of funding and continue to fulfill their public mission. This translates into presidents moving into a more externally focused role since their institution's survival may depend on seeking and securing new partners from all segments of society including business and industry.

Birnbaum (1999) states, in accordance with previous scholars, a same way points :

“To strengthen academic leadership, we are told, we must reform structures, adopt more rationalized management systems, and increase the power of executive leadership to make faster, more efficient and more effective decisions...First, society is facing unprecedented crises. Second, weakness in higher education have contributed to these crises and improvement in higher education will help solve them. Third, academicians are part of the problem...”

The demands on higher education have never been higher. Prognosticators are not painting a very bright future for higher education. Colleges and universities will be so overwhelmed by growing numbers of students and stagnant public funding in the next 20 years that they will be forced to reject millions of potential students (Benjamin, 1998).

The accountability issues are multifarious as Benjamin predicts that the exclusion of these millions could seriously damage the welfare of any nation, increasing economic and ethnic inequality, lowering productivity and international competitiveness, and undermining social stability.

Kerr(2001) agree with his descriptions the escalating demands on the public universities over the next 15 years. Signs of the future change seems to be emerging as:

- More privatization. Greater reliance on tuition...the land grand university may become the private grand university.
- More federalization. The federal government, increasingly, is held accountable for higher skills for national and international labor markets.
- More cultivation of general public support.
- More attention to effective use of resources.
- More pluralistic leadership.
- More attention to longer-term directions of movement...External conditions can change rapidly, and there are so many uncertainties.
- Consideration of protection for the non-market functions. Higher education is becoming more market-oriented.

QUALITY AND ACCOUNTABILITY

The current preoccupation with educational accountability appears to have begun in most developed countries in the 1960's, acquiring significant new energy during the mid-to-late 1980's. The reasons for these calls for greater accountability, furthermore, are to be found in the wider economic, political and social context of which Higher Education Institutions are a part. These context are not uniform across all countries.

The change occurred earlier in the United States where public policies combined with market mechanisms particularly in the 70's and 80's when political accountability overtook professional judgment in universities as the quality mechanism.

In Western Europe, however, it happens through governmental control by legislation and procedures to ex-post justification by quality assurance and accountability measures. This development visible in the Western Europe in 1980's and in Central and Eastern Europe in the 1990's.

There are policy networks at every level that are influencing the production of quality agendas that are similar to each other. Yet have unique attributes that significantly relate to their geographic and historical context. At the same time, there are overriding influences that determine major shifts in higher education policies. To ideological shift towards the New Right led to greater privatization of higher education and was a major influence bringing market forces to bear on universities. In addition, following global trends influencing higher education systems from 1980's to the present have affected type of quality assurance programs and several accountability mechanisms established in different national systems.

There has been continuous issues and concerns related with the quality in Higher Education Institutions. These concerns have been focusing around some questions:

- 1) Higher Education Institutions explicitly planning and organizing to produce the graduates required by society; are their objectives appropriate ?
- 2) Is the money being spent well; are the higher education institutions operate efficiently ?
- 3) Are the Higher Education Institutions producing the desired graduates; are they operating efficiently ?

By quality assurance programs, HEI want to make sure that they are doing things well.

- In the past 20 years, the number of agencies, networks and initiatives focused on quality assurance at the national level has grown.
- OECD member states have an increasing number of accreditation and quality assurance systems

- External quality assurance and accreditation of cross-border education needed for international comparison
- Besides, lack of comprehensive frameworks produces gaps in the quality assurance of higher education

Accountability, in the future, will be right at the center of the debate. By delivering equity and justice to individuals trying to access to the Higher Education Institutions, accountability should be realized by the university systems as well.

Trends in Education and Higher education, also, try to push educational accountability politics:

- Decentralization
- Autonomy
- New governance popularity
- International competition

Accountability mechanisms to be urged because, universities should adapt themselves to the new changes and developments in 21st century:

- i) The relationship between governments and universities is changing
- ii) Efficiency and value for money changing
- iii) Internationalization of higher education and globalization is on their way
- iv) Information and communication technologies changing

In this paper, it has been shortly underpinned that accountability and quality assurance are in a position of chicken and egg duality. We don't know which one comes first. But however it is, they are the mutual needs of any Higher Education Institution and without both, any university cannot achieve the basic international standards.

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University Collaborations Addressing Community Services

Abstract

The mission of the universities involve among other higher education programs community services which focus on integrating the aims of higher education with students education, preparing selected professionals and trained faculty and staff for service advocacy, taking responsibilities and understanding community needs. The university will then set the tools and resources for problem solving efforts depending on the nature of the community need, availability of resources and opportunities and setting the expectations from the beginning ahead of any program of serving the community. Identifying problems and community needs are essential in establishing short-term and long-term plans for directing potential collaborations among universities in order to serve the community. Projects of collaborations among various universities would take advantages and special points of strength of each university to be involved in community services and thus maximizing benefits gained by local communities.

Potential collaboration projects could include but not limited to language teaching, health care, development of animal welfare and resources, revitalizing low income communities, sharing the knowledge of advanced technology. Taking into account the concept of “train the trainer” will definitely maximize the benefits gained and widen the scope of community services and efficiently uses higher education resources and facilities. Collaboration programs among universities will strengthen their relationships as well as those of the related communities with potential opportunities to promote service-learning and citizenship education in higher education institutions. Further, such programs will pave the road for designing and implementing sustainable models of community services which address the needs of local communities.

Introduction

Community service is an important aspect of the mission of the universities. It focuses on integrating the higher education with students education, preparing specially trained faculty and staff to know and understand community needs for better community services. The core areas of educational emphasis of higher education institutes include teaching and educating students, capitalizing various research programs, information services and continuing education programs to create a thriving higher education sector in the local communities which encompass the institutes. Collaborations among various universities are ways of establishing educational contacts, academic exchanges, complementing each others needs and identifying weaknesses and strengths of the local community services. The collaborations without political interferences that might hinder academic prosperity and scientific advancement, eventually serve the needs of the communities with higher educational standards.

Higher educational programs of collaboration

Protocols of agreement or memorandum of understanding usually signed between two universities or more focus on general academic, educational and scientific areas of mutual interest. These agreements usually include the following:

1. The exchange of faculty members and researchers among the universities.
2. The exchange of undergraduate and postgraduate students.
3. Joint research programs and scientific activities which include conferences, seminars , workshops, meetings, training courses.
4. The exchange of information and scientific publications.

Specific needs of the local community in which a university exists could be easily overlooked if not ignored in implementing such programs of mutual agreement between two universities. This is specially true when the main emphasis of the agreement focuses on pure academic thrives. Therefore, subdivisions of collaborations should originate from any mutual understanding or agreement. These should be stressed upon, well organized and pinpointed to involve community services with utmost benefits to individuals concerned.

Community services to be addressed in university collaborations

Some regional universities may impose, as a result of their policies or those of the central government, several forms of restrictions on scientific programs that include the research activities, educational curricula, teaching methods, application of information technology and extracurricular programs. These restrictions could be subtle and not feasible. To bring the attention to community services, consolidated protocols should be included in any mutual scientific and academic agreements among universities. It is after all the community services which are needed from the universities!

Academic freedom should of course encompass such agreements, and the universities are expected to maintain highest academic integrity, professional independence from any political influences to reform and consolidate their mission in serving and advancing their communities. Specific emphasis on certain, albeit urgent, community needs in any future collaboration programs among the universities in our region are listed below with suggestions (that could be modified) to implement them:

1. Teaching languages

There are local demands to learn regional languages in addition to English, French and German. This is mainly related to the commercial ties, sponsoring translation programs and tourism that began to flourish and expand in the recent years. Academicians themselves would benefit from the programs of language teaching and would enrich their performance and help them in their communications when implementing academic visits and scientific communications. Establishing language centers with proper equipment and possibly telecommunication facilities would certainly benefit the students, staff, faculty and individuals from the local communities.

2. Health care services

In spite of the medical advancement in health care profession, there are still local needs for highly specialized medical experts and/or clinics that would serve local communities. Scheduled visits of the experts to universities would help this aspect of the medical need of the society and they can be engaged in training of selected faculty and staff. Establishing teaching hospitals as well as specialized clinics are in urgent demands by lowl income individuals of the societies.

3. Animal welfare development

Animal resources flourish in agricultural societies. However, mutual collaborations are needed to combat, control and eradicate animal diseases and help in preventing disease spread across the borders. Regular continuing education programs involving selected faculty and local veterinarians of the community as well as selected farmers and animal breeders could be involved in such services. Future expansions of advanced scientific and technical collaborations would involve vaccination and disease control programs.

4. Sharing advanced technology

As the societies need advanced technical information and their applications, mutual workshops and seminars with on hand training protocols can be implemented. Computer-dependent programs and their practical applications and related skills can be transferred to communities which need them. Some areas that would benefit immediately from advanced technical programs include areas of marketing, management, administration, news media as well as printing and publishing sectors.

5. Engineering

Various branches of engineering and interior decoration expertise are on demand by local communities.

6. Training the trainer

Training the trainer in any exchange programs are indeed very useful and economic in transferring the information and technology. The trained personnel would in turn take their roles in helping the society and individuals who need close and time consuming trainings. Organizing inter-university telecommunications would certainly facilitate such training programs and widen the audience.

7. Extension education programs

Enriching extension education programs that focus on community services and upgrade the technical and scientific information of higher education graduates would help in rehabilitating and revitalizing individuals in local communities. Continuous education programs can invest in and train the academicians and staff to upgrade their scientific knowledge and improve university curricula. This would have inputs on globalizing educational sectors and improve the quality of community services universities offer.

8. Enriching the campus life

Extracurricular activities such as those related to sports, fine arts, hand crafts, local folklores, fairs and news media are ways of enriching student life and insure community involvement in such activities. Planning for the youth success in the community will also promote university partnerships.

Volunteers from the community will further strengthen the ties between the university and the society.

Conclusion

Community service is potentially an effective way of helping the society to be improved and to advance in various aspects of the life. It would also strengthen the relations among universities involved in the programs of serving the community. Projects of collaborations among various universities would take advantages and the unique points of each university to be involved in community services and thus maximizing benefits gained by local communities. Community service programs will pave the road for designing and implementing sustainable models of community services which address the needs of local communities in our region. The channels will be open among the universities and their communities for continuity of the collaborations. Establishing community service centers and expanding the existing ones with highly motivated coordinators in the universities would certainly help the institutes to launch various programs of serving the community.

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Kairat Zhunis

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Development of International Cooperation in the Field of Education : The Case of Kazakh National University

Dear Colleagues!

Thank you for the invitation to deliver presentation at the Ataturk University which is highly esteemed university around the world.

Ataturk University prepared many prominent politicians, outstanding public figures throughout its history. Therefore, the credibility of your university is undeniable in the world academic community.

First let me say a few words about al-Farabi Kazakh National University. Last year, our University celebrated its 75th anniversary. University became the first institution of higher education in our Republic.

Today 18 thousand students, masters and doctoral students in 180 specialties are studying at the Kazakh National University.

There are 14 faculties, 102 divisions. The teaching staff consists of almost 2 thousand specialists. There is own campus on the territory of 100 hectares.

In the scientific potential of the university there are 22 research institutes and centers, technology parks, two modern national laboratories which involved in more than 300 research projects, including 60 international projects. University performs the same number of scientific works, as all the rest of Kazakhstan higher educational institutions together. University issues large number of scientific journals.

Research centers operate in the Kazakh National University. Typically, they are created with the participation of foreign countries and international organizations. Among them - the Confucius Institute, the European Information Center, Resource Center of NATO and American Center for Democratic Studies, and others.

International cooperation is broad and includes areas such as research, cooperation in the field of education and procedures directly in the preparation of specialists at all levels, informational cooperation, and so on. In general our university has more than 400 agreements on cooperation with leading universities and research centers in Europe, Asia, Africa, USA, and so on.

As you can see, Kazakh National University has a sufficiently serious scientific and educational potential. It offers a real opportunity to transform our university into a global center of quality of higher education in Kazakhstan, and we consistently implement these opportunities.

Republic of Kazakhstan is a young nation, committed to building an open economy and democracy, and full integration into the global community. One of the main directions of this integration is the entry into the world scientific and educational system.

The President of Kazakhstan Nursultan Nazarbayev's task is to prepare specialists, competitive not only locally but also in the global labor market.

To do this, we carefully study the experience of leading universities and experience in the development of science and training at the highest level, as they say - the people of the effective action. But one thing is the theoretical study and quite another is to see it with own eyes and to talk with people who manage this process.

Therefore, this meeting is very valuable to us. I hope for you such contact would be of interest in terms of more detailed information on Kazakhstan, its higher education and science.

I can say very clearly - our country has a definite course of training in the best traditions and techniques of world-established system of higher education.

Major landmarks, we are guided in this direction, but I'm not just talking about the Kazakh National University, but the entire system of higher education in our country, the following.

First, the transition to the world adopted a three-stage education of qualified personnel in the system "Bachelor - Master - Doctor of Philosophy {PhD)".

At present time almost all universities in Kazakhstan have accepted the first two of these stages. Two leading universities have got already the third step - training the doctors of philosophy. For two years our university which has become a leader in this business as well as in the Eurasian National University located in the new capital of Kazakhstan (Astana) carried Issue PhDs with a three-year program in accordance with international standards.

Today Kazakhstan science is considered as an essential condition of forced industrial-innovative development, which the President of the Republic of Kazakhstan Nursultan Nazarbayev put at the forefront the post-crisis period. It means that our science must meet basic standards, adopted in the developed world, including those on academic degrees.

German Accreditation Center accredited 10 programs in science learning cycle, an additional 10 programs for humanities prepared for such accreditation. KazNU is the first and still the only institution of higher education to be awarded the Prize of the President of the Republic of Kazakhstan "for achievements in quality."

This already allows us to say that the quality of training in the Kazakh National University actually goes to the international level. Currently we are making great efforts to ensure that another important component of such training - academic mobility, which is one of the fundamental principles of the Bologna process. Accordingly, we and the entire system of higher education in Kazakhstan to significantly revise the structure of state educational standards. We will seek to provide the university more opportunities to use their own flexible curriculum. So real progress to the international quality of training we have, and these processes will continue.

In order to intensify research created a foundation of science, formed and equipped with modern facilities, five national laboratories open and fifteen engineering laboratories. Two of them -the National Engineering Laboratory and Nanotechnology - operate in our Kazakh National University. Combining science and educational process which will boost the quality of training - it clearly says on the practices of the largest universities in the world, including your university.

In the field of education the most important event was the acts of the lecture the President of Kazakhstan N. Nazarbayev "Kazakhstan in the post-crisis world: intellectual breakthrough to the future". This already allows us to say that the quality of training in the Kazakh National University actually goes to the international level. So real progress to the international quality of training we have, and these processes will continue.

Famous American General Douglas McArthur said: "In this world there are no guarantees, only opportunities." We now have great opportunities - thanks to a new vision of the development model of higher education and science, as well as the invaluable experience of the major universities and research centers in developed countries, and your university as well, your experience, dear colleagues. And we will try to realize these opportunities.

I sincerely thank you for the opportunity to meet with you. I wish you excellent health and new successes in the sacred business -preparation of modern professionals, for whom the future of our country, the future of the world.

Thank you for your attention, ready to answer your questions.

Prof.Dr Cafer Özkul

Rector, University of Rouen, France



French Higher Education: New Developments with respect to the Bologna Process and New Reforms for a More Effective Cooperation between Universities.

Abstract: First, the French higher education system is presented, covering all the stages of lifelong learning. Then, the structures of cooperation between the universities, the research establishments and the industry world are briefly described. The main characteristics of the Rouen University are given at the end of this paper.

The French Education system is divided into three main stages: primary education which starts at age 6 and lasts 5 years, secondary education that takes place in junior high schools then in high schools (i.e., lycées) up to approximately age 17, and finally higher education.

One main characteristic of the French secondary education is its highly centralized administration. Another characteristic is that the curricula are standardized. Secondary education is divided into 2 cycles, made up of 4 years of junior high schools, plus 3 years in high schools (i.e., lycées). The end of the junior high cycle is completed with the “brevet” and the end of the high school with the 1st national examination called the Baccalaureat or Bac as it is shortened. The Bac is also considered as the entrance exam to the university. Today 85 % of an average age group get the “baccalaureat” and at that point the students have started to major in either sciences or humanities, social sciences or technology, for example.

The higher education system is a dual system composed of both “grandes écoles” and universities. The French universities are public institutions that deliver national diploma, even they have a growing autonomy in the administrative, academic and research areas.

The universities are constructed on a 3 cycles: this is a system of 3-5-8 years of the study, it is also called the L-M-D system. Following the Bologna process which consists in a relatively new effort to harmonize qualifications in France with the rest of Europe, the L-M-D offers to students 3 years of studies for a Licence or Bachelor’s degree, 5 years total for a Master’s and a total of 8 years for a PhD. The Licence is awarded for 180 credits of study while the Master is awarded for a total of 300 credits of study. The Doctorat is awarded for a total of 480 credits of study, it requires the successful defense of a dissertation but does not require qualifying examinations.

But this national and now European system knows some exceptions: one of them is the specific case of Medical and Pharmacy. There the first cycle is called PCEM and is completed in 2 years, the second cycle is called DCEM and is completed in 4 years of both classes and hospital internship. These 6 years lead to vocational qualification but only in Dentistry and Pharmacy.

Indeed a 3rd cycle culminates in state diplomas, in 3 years for the national diploma of practitioner in medicine or the national diploma in specialized medicine in 5 years.

Another point is that the University, along with some high schools, is also home to vocational degrees: after 2 years a student can complete an Institute of Technology in a University or a BTS, in a high school.

A very specific property of the French higher education is the “grandes écoles”. In contrast to the universities which are strictly public institutions, the “grandes écoles” can be either public or private. They are selective and generally offer a more specialized 3 year course of study with majors in business, public administration or engineering. They lead to a Master's degree along with an engineering diploma.

The French universities have a long tradition of openness and accessibility. Because it is financed by the state via the taxes, the tuition fees are quite inexpensive.

The different structures of cooperation between universities, research establishments and industries are being presented hereafter.

Different types of cooperative work exist: first of all are the mixed research units (UMR).

This is an original feature of the French higher education and research system: in one laboratory you find university professors working side by side with research organization researchers (for example CNRS, INSERM, INRIA, IRD, INRETS, CEA, ONERA, IFREMER and so on) on one specific scientific field. The units are located inside university labs and are jointly operated.

The second type of cooperation was born in 2002 out of the spring of a new industrial strategy based on the development of clusters to increase the French industrial potential: they are called competitive clusters.

This strategy relies on an active partnership between manufacturers, research centers and training bodies and is also conducted at the European level. When in place and scientifically recognized a “competitive cluster” label is granted and financing is attached. There are 2 main types of clusters: either very high tech clusters with an international profile or clusters based on an industrial base in French areas of specialization or development.

The third type of cooperation is called PRES. The French government has reacted to the world university ranking and notably to the Shanghai ranking by inviting French universities to regroup with local schools and hospitals on a regional scale in order to be stronger by mutualizing forces. The main objective of the PRES is the acquisition of costly equipment to be shared between labs as well as the training of PhD students. Moreover, the PRES can help promote and transfer research and reach an international visibility. There are 19 existing PRES today on the French map and some others to come.

Last but not least, GRR are extended research networks: they are thematic and work on a regional scale. They are supported by local administration with grants either for PhD students, scientific equipment, conference organization and are aimed to impulse collaboration between labs working on the same field. The Higher Normandy Region counts 6 GRR.

The aim of all these collaborative structures is to favor the innovative research and higher education actions in order to contribute to the local, national and European economic development.

To say the truth, part of these new education and research organization were originated from the international ranking objective, especially from the highly criticized “Shanghai ranking”. This motivation also impacts the federative projects supported by European funds.

* Rouen is a city in the region of Normandy (France), located north west of Paris, at a distance of 80 miles. The University of Rouen stands as a medium size multidisciplinary university in the French national landscape. It counts 24500 students (900 PhD level students), 2500 lecturers, researchers and staff who work in 43 laboratories. Our outstanding academic departments and programs are offered in 6 faculties and 5 Institutes.

The faculties are: Sports/ Sciences and Technology/ Health Sciences, Medicine and Pharmacy / Sociology, Psychology and Education Sciences / Law, Economics and Management/ Humanities, Letters and Art.

The institutes are: the Institute of business and management / the Institute for general administration / the Institute for teacher training / 2 Institutes of Technology.

Here are some words about the University governance. The University is headed by an elected president and 3 boards: the administrative board, the scientific board which is only consultative and the education and student life board, also only consultative.

In addition to the general administrative services, several services are dedicated to academic goals. Among these services, one should mention the teaching quality evaluation cell, the vocational insertion service, research, international relations, long life learning, sandwich courses, distant learning.

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Expectations From Today's Universities

ABSTRACT

This study deals with the expectations and duties of universities as universal institutions. In particular, suggestions on the system, resources and relationships for quality assurance are given.

INTRODUCTION

Today`s most valuable treasure is knowledge. Universities are universal entities where knowledge is produced and shared with the society. The world is moving towards information society and it is experiencing a rapid transformation. That is why the educational process has become central to economic and social processes and to growth itself. It is a major strategic input. Individuals are seeking advancement while whole societies are looking to higher education and research to underpin economic growth, improve the quality of life and strengthen the social fabric. Universities have a vital role in helping to set new goals and directions for human development while maintaining a rich and cultural heritage.

Today`s universities roles are embraced well in the triangle: Education, Research and Contribution to the Society(Fig. 1). Universities are ranked and chosen according to their success in carrying out these duties.

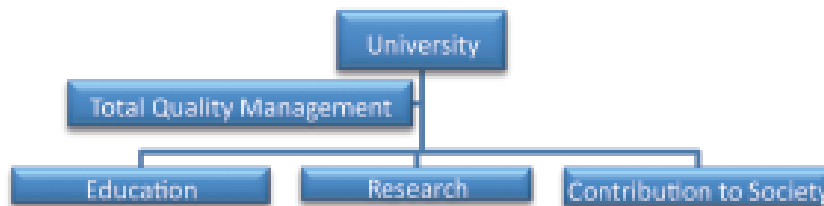


Figure 1 University's Duties

At the same time the challenges such as increase demand for education, for quality in qualifications, the globalization and internationalization process as well as the tremendous development in information technology are demanding a number of immediate actions by universities such as opening the system, accountability, links with the business community and society rewarding excellence and success and matching the skill acquired during universities studies with the labor market requirements.

EXPECTATIONS FROM TODAY`S UNIVERSITIES

The demands and expectations that are being placed on higher education institutions by Government, industry, social partners, parents, students, professional bodies and other interested parties are formidable. It is essential therefore that we assess, review and explore performance and chart strategies so that our higher education system is equipped to deal with the new challenges of this century.

The Expectations from the Universities can be seen from two points of views those of the students and those of the society as a whole:

Student`s expectations

The reason of existence of many universities is the students. In order to ensure quality at universities, the proper education of students as well as their satisfaction should be the main element. Students should be able to participate in all processes. Students should embrace the University as well as have an attachment to their university throughout their lives. In order to ensure this, it is important that students be satisfied during their education and also that the gained knowledge be useful to them in everyday life.

Generally, students come to university with a mix of expectations that can be categorized into four major areas, as follows:

- To become “human capital”. According to this perspective, students come to university in order to obtain a qualification, which will get them a job.
- To gain general benefits from becoming educated, meaning the inherent rewards that result from developing an understanding of specific subject matter from becoming broadly educated. Students are at university to develop and grow intellectually and also to develop general competence.
- To mature and develop the personality. University is expected to be an arena for students’ general personal development and a place where they can “grow up” in a rewarding and enriching way.
- To gain competitive advantage. Students’ expectations are that they will work hard at university - and succeed in the sense that they will achieve high grades - or at least pass: this will enable them to move into rewarding careers and/or further study.

Societies’ Expectations

The University's obligation to society is to produce and share knowledge and serve as a catalyst of development for the region where they operate and beyond. Universities, whether public or private are now expected:

- To prepare necessary human capital
- To uphold standards and high quality with reducing unit costs;
- To be more opened to partnership in the development of the learning society;
- To provide guidance and service at local, regional, national and global levels;
- Manage themselves effectively to achieve performance targets in teaching and research, and be publicly accountable and transparent;
- To demonstrate ability to obtain new and additional sources of income.

The pressures on universities and their responses to the abovementioned expectation have brought about a shift in direction: not just a teacher as a source of knowledge but also a learner, investigative student; not an enclosed static entity but a center part of a vast network of intellectual, social, economic, cultural relationships. Most of the university leaders and policy makers now question the survival of the university in its nearly stagnant form as it often nowadays.

The today`s university must inevitably be different and innovative in the introduction and production of knowledge. Yet people talk about the university as if it were an ageless static entity. The university has long been evolving, even if slowly, in both its values and its organizational forms. And we are in the process of major change today.



Since both students and societies turn their eyes toward universities to develop them respectively as individuals and as whole society, the university must reform itself before it can hope to reform society.

A university gains its universal status by producing knowledge at the international level, by effectively sharing and innovating itself as an education and research institution. The most important duty of universities is to raise individuals sensitive to the world's truths; investigative, productive, professional, competent and with a researching spirit.

Universities serve the society by teaching knowledge and technology and supporting the work in this area. They contribute to the development of knowledge and technology in the country where they are established and contribute to the training of human resources.

University as teaching institution

Education and research activities of the academic staff are a cornerstone for the University. The duty to raise well-qualified persons falls upon the academic staff, who should make use of the University infrastructure, should cooperate with the administrative staff and have close contacts with students by carrying out the defined relations within the system. In this context, a well-qualified, innovative and prolific academic staff represents the main element of quality at the University.

Continuous interaction with teaching and learning environment should be created. However, between teaching and learning, principles of love and respect must occur in a dependency-based information. The staff who manages the relations between the teaching staff and the students should be well aware that these relations are directly connected to quality at the University. Academic staff, by educating the students, also demonstrates the quality of the university, and determines its future.

Academic staff must be highly motivated. Personnel should be provided necessary training facilities. Success and quality of the staff is very important for the image of the University. It is necessary that the standard of leaving of the academic staff be high and it is also very important to have a fund that can be used for research activities when necessary. Improving the situation of staff salaries and satisfaction are important to ensure productivity.

Performance criteria should be determined within the system of academic staff, and must be taken care to ensure these criteria. In the academic incentives, performance and productivity should be kept in the foreground. The salary of the academic staff with a high performance should be even higher.

The applied contribution of academic staff is indeed an essential condition in increasing the quality of university teaching-learning process. The teaching staff learning and being coherent with what happens in practice will be more successful in theoretical courses. This kind of opportunities should be offered to the academic staff.

Payments received by the contribution given in application-oriented activities directly increases the staff motivation. This will also encourage the social contributions.

Academic staff must understand the goals and objectives of the program, and should be eager and sufficient for teaching-learning and research. It should also have good use of information technology in order to pass information to students in any environment conditions.

University as research institution

One of the university's missions is contributing to the development of society. What are the characteristics of the successful systems? First, they all have some useful knowledge to deliver. Therefore, research is a necessary prior input. A good-quality research infrastructure should be established in universities. The research potential should be published through an accessible database. A medium for cooperation at the national and international level should be created.

For researchers access to resources at any time and location should be easy. The use of electronic databases should be spread; the research must be published in databases in order to produce new research.

The university research should meet social needs, the development of new technologies and techniques. Necessary measures should be taken for the dissemination of research; researchers should be encouraged. Routed in the university should be departments where research can be coordinated. The area of the university's research must be pre-determined in order to contribute to the region. The results obtained in the research should be disseminated both locally and internationally.

Thesis research conducted in the graduate programs must be indexed. Research projects that do not lead to publications or that do not contribute to application should be avoided. At the same time, it should be known from the research staff that these approaches, which constitute a moral problem, represent a waste of resources.

Universities as socially responsible organizations

Universities are global institutions. Universities all over the world can be resembled to a science house. Assuming the house walls are composed by bricks` and every university is a brick of science house. Thus, we would define the social responsibility of the university as those activities that involve corporate commitment to some role in the problem solving efforts of society and focused on the developing of human, national and community resources. It involves a purposive delivery of the university's special competence and resources to organizations and individuals outside the university.

To realize their mission, universities must set their strategic aims and goals. All the activities of the universities must be planned, applied, evaluated and checked based on these aims. The continuous improvement of quality must be better looked, and this is possible only by using the strategic management approach. Universities must give great value to the strategic management in order to improve quality.

Carrying out activities for the benefit of the society, all the processes in the universities must be transparent, monitored, measurable and reported. Saying I am good; I have quality is not enough. This must be shown with data and be proved. This is possible only through accreditation. In order to ensure accreditation and quality, a knowledge-based system must be established and the best quality must be constantly searched.

The world is moving towards information society and is experiencing a rapid transformation. The countries in order to enter into the world rankings, based on knowledge, must establish a dynamic social and economic structure. This is why today we are living an information-driven restructuring in all areas. Universities are leading this change.

QUALITY AND QUALITY ASSURANCE

In order to identify the level of success, the Universities must evaluate their situation, they must enter the process of external evaluation and they must be accredited.

In order to increase the quality and success, Universities must adopt the Total Quality Management and based on the information technology systems, adopt the Knowledge Management System. Only in this way universities can be in the process of continuous development.

“Quality” is defined as ability to meet the expectations and demands of the clients in products and services. In the universities quality can be defined as the level of success of the work, meaning the ability to train human resources in the areas needed by the society, to perform research activities driving forward the society and dissemination of quality. At the same time, quality is the characteristic which distinguishes among other service providers offering the same services. The University`s Quality is the performance to reach the previously set institutional goals by the appropriate people, distribution in appropriate manner, in the set time and obtaining of the clients satisfaction.

In order to materialize these goals, the trends adopted in the management of the university are recognized as quality policies. The quality management on the other hand consists of the: quality policy, definition of the aims and responsibilities and planning of them within the system of quality, organization of all the activities towards the application and control (Figure 2). The Total Quality Management is known as the process of knowing the university, definition of the role of human resources, organization and receipt of feedback during a continuous improvement and search for excellence.

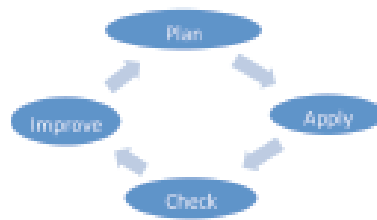


Figure 2 Quality Cycle

The quality assurance in universities is known as planned and systematic activities aiming at the fulfilment of the previously set standards of quality in the products or services offered by the university and provision of adequate confidence. The program`s quality assurance consists in all the planned and systematic activities accomplished towards the fulfilment of the quality/performance indicators of the universities education program. In the context of the quality assurance of the university, the Organization Handbook must be published, and all the activities must be administered in this framework as well as reported and evaluated in order to reach a continues improvement.

Accreditation

Periodic evaluations and quality certification of a department / program carried out by a competent authority in accordance with the academic quality standards is being defined as accredited.

COMPONENTS FOR QUALITY AND SUCCESS IN UNIVERSITIES

Universities must define their objectives and strategies. Each university has different advantages according to their location, target group and institutional characteristics. By taking into account these characteristics efforts should be made to get the best position.

The quality of university in general can be evaluated on three main components. These are system, resources and relations (Fig. 3)

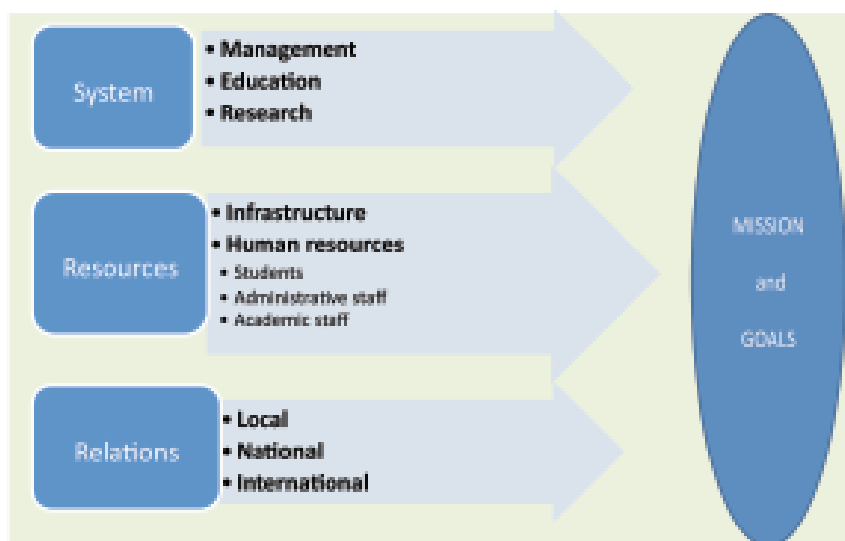


Figure 3 Components of quality and success in University

System

The most basic component of quality and success in the university is having a system. A University must have its own system where the dynamics are defined, controlled and evaluated. The system should be established on the continuous improvement of the quality cycle.

The university system can be divided into three categories, management, education and research system (Figure 4)

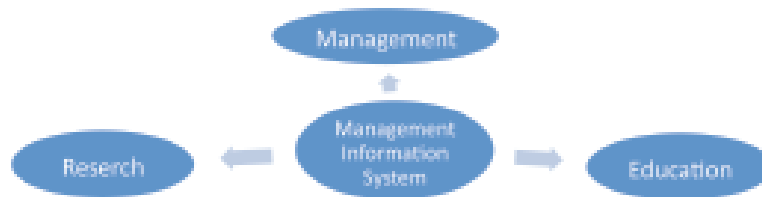


Figure 4 The System in Universities

Management System

Based on the information systems and on universal effective principles, Universities are places where Management Systems and sets of rules should be implemented. Universities together with their staff should be a dynamic and continuously learning organization. In the Management System, the involvement of all parties to the latter should be provided. All the activities should be transparent, auditable and evaluable. Decision-making in the university administration should take place within a system (Figure 5)

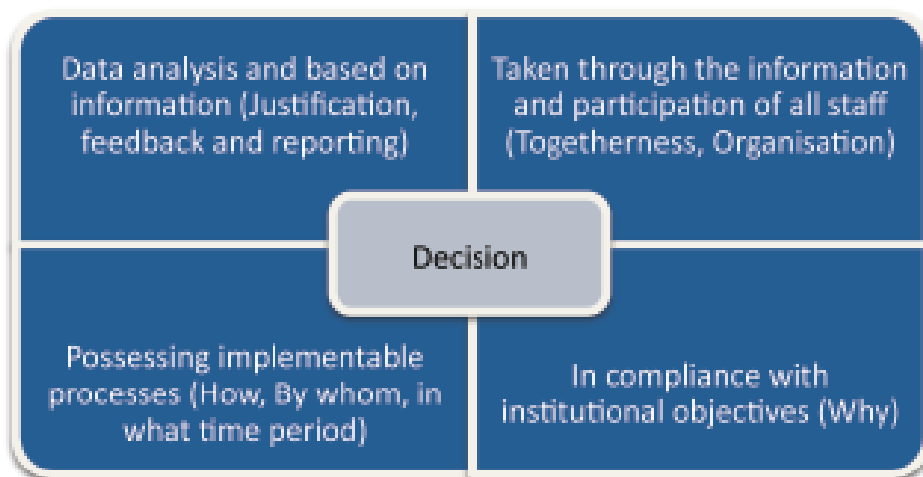


Figure 5 Management decisions in universities

Educational System- Learning outcome Based Education System

In the universities a quality-oriented educational system should be adopted. With the participation of stakeholders the goals, objectives and learning outcomes should be determined. At the same time, all activities should focus on outcomes(Fig 6-7).

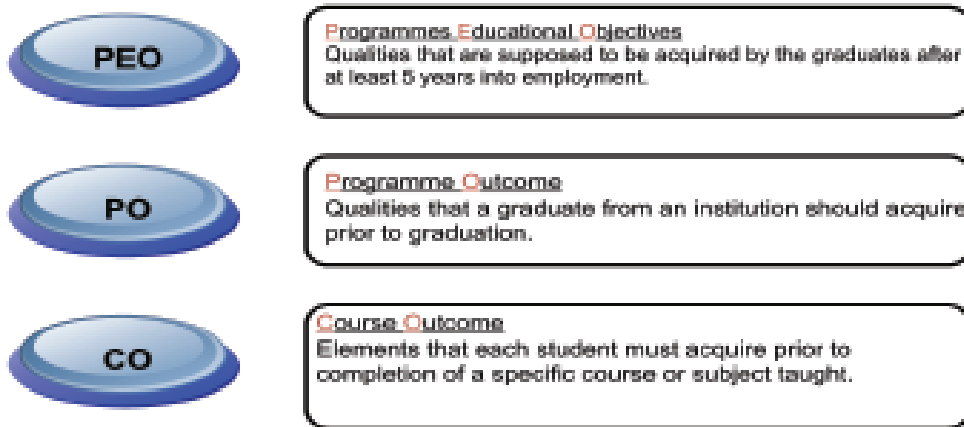


Fig.6. The outcome is set by setting the PEO, PO and CO

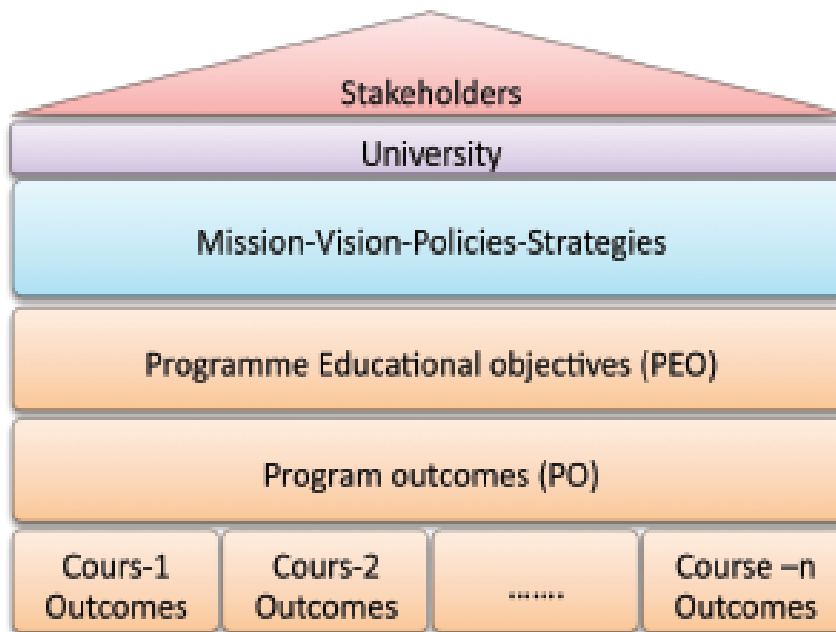


Fig. 7. Outcome Based Education Structure(Education House)

In the universities, continuous innovative and dynamic educational programs should be implemented, which should be addressed towards the needs of the different sectors (Fig. 7). To achieve an excellent education, the processes should be continuously evaluated and improved (Fig. 8). The students and representatives must be involved in the evaluation processes. According to the gained feedback the curriculum should be reviewed continuously within the quality cycle (Fig. 8). Program qualifications that do not contribute to any activity must not be included in the program.

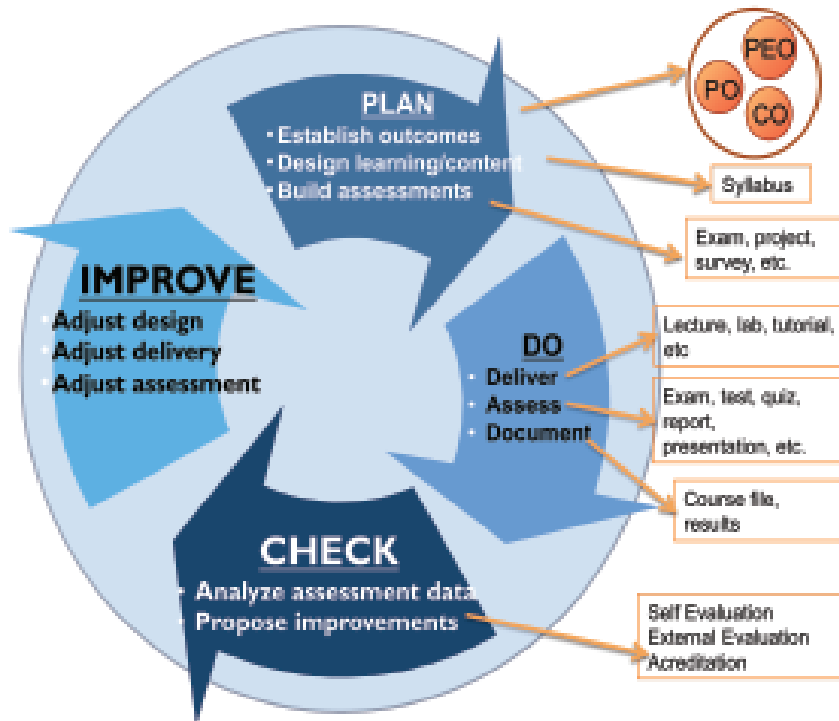


Figure 8 Quality cycle for University Education

Emphasis should be given to the applicative education. For an effective education, it should be ensured that students be present in the work environment as well as meet with their successful colleagues who are involved in the application process.

The quality of an institution cannot be understood if it does not follow the product quality. It is necessary that the continuous evaluation of the qualified human resources after their graduation as well as the analysis of the extent that the received education responds to the application needs be ensured.

Research System

One of the university's missions is contributing to the development of society. A good-quality research infrastructure should be established in universities. The research potential should be published through an accessible database. A medium for cooperation at the national and international level should be created.

For researchers access to resources at any time and location should be easy. The use of electronic databases should be spread; the research must be published in databases in order to produce new research.

The university research should meet social needs, the development of new technologies and techniques. Necessary measures should be taken for the dissemination of research; researchers should be encouraged.

Routed in the university should be departments where research can be coordinated. The area of the university's research must be pre-determined in order to contribute to the region. The results obtained in the research should be disseminated both locally and internationally.

Thesis research conducted in the graduate programs must be indexed. Research projects that do not lead to publications or that do not contribute to application should be avoided. At the same time, it should be known from the research staff that these approaches, which constitute a moral problem, represent a waste of resources.

RESOURCES

World resources are limited. The Universities that generate and use information should assess these resources in the most ideal way. The university's resources can be evaluated according to the "Infrastructure" and "Human Resources" categories (Fig. 9). These are also deal with Financial resources

Infrastructure

To serve to the quality of universities, the education and research infrastructure should be built according to the development of informatics and information technology. To this end, research labs, libraries, classrooms, auditoriums, offices, administration offices and social centers, university campuses are the ideal solution. Both researchers and students should hold the belief and feel that it is a privilege to be present in the campus. All resources based on financial resources.

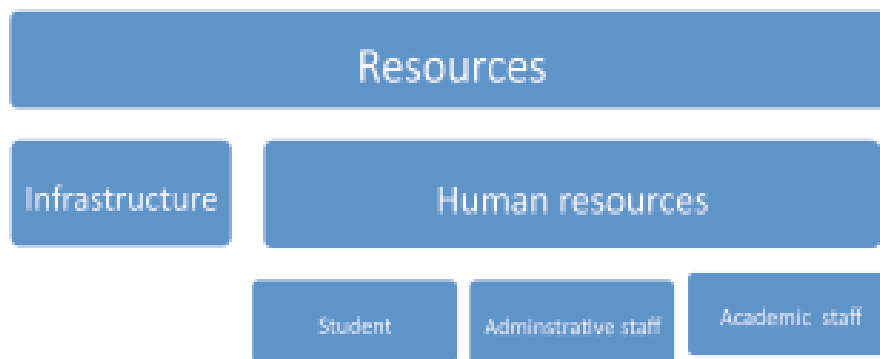


Figure 9. Resources of University

The possession of ergonomic and technological capabilities in the auditoriums as well as in the classrooms will facilitate the learning process. The campus should be designed to serve seven days in 24 hours. Functional spaces that meet both the needs of collective and individual use should be designed.

All spaces of the university must be arranged according to today's technology to meet the daily needs of students and employees.

Every aspect of human life, dynamic construction and environmental organization should be foreseen. Every measure must be taken that aims at the environmental protection and efficient use of resources.

All details must be arranged in the campus. The contact information is also required to be provided at the highest level.

Human Resources

Human resources of the university are the students, the academic staff and the administrative personnel.

Students

The reason of existence of many universities are the students. In order to ensure quality at universities, the proper education of students as well as their satisfaction should represent the main element. Students should be able to participate in all processes. The presence of the University "student council" representatives in teaching process and administration should be ensured in an effective manner. Students must be in the center of all planned activities.

The success of the admission of students, university education and employment after graduation achievements is the most important factor determining the quality of the university. The selection, education and preparation for work life is an indispensable element for the quality and success of the University.

Students should embrace the University as well as have an attachment to their university throughout their lives. In order to ensure this, it is important that students be satisfied during their education and also that the gained knowledge be useful to them in everyday life.

Administrative Staff

The administrative staff is the most important resource who operate in the university system, infrastructure and other human resources to regulate the relationships. The administrative staff within the system should be provided with a focus on job descriptions and the empowerment of governance systems.

Postgraduate studies for the administrative staff, with various opportunities to increase the level of knowledge, will enhance the quality and success of the University. An administrative staff prone to research is a useful element for the conduct of services. Staff that works with passion and that aims at being promoted based on the determined performance criteria should be employed.

Despite the principal duties of the administrative staff academic activities also should be encouraged. The well-qualified staff should be conscious that when necessary, it may be involved in education and research activities. This is very important for motivation and image.

New ideas related to the administrative staff should be encouraged to follow. In mutual trust, appropriate staff should be employed in the appropriate position and continuous improvement based on learning environment should be created.

Academic staff

Education and research activities of the academic staff are a cornerstone for the University. The duty to raise well-qualified persons falls upon the academic staff, who should make use of the University infrastructure, should cooperate with the administrative staff and have close contacts with students by carrying out the defined relations within the system. In this context, a well-qualified, innovative and prolific academic staff represents the main element of quality at the University.

Continuous interaction with teaching and learning environment should be created. However, between teaching and learning, principles of love and respect must occur in a dependency-based information.

The staff who manages the relations between the teaching staff and the students should be well aware that these relations are directly connected to quality at the University.



Academic staff, by educating the students, also demonstrates the quality of the university, and determines its future.

Academic staff must be highly motivated. Personnel should be provided necessary training facilities. Success and quality of the staff is very important for the image of the University. It is necessary that the standard of leaving of the academic staff be high and it is also very important to have a fund that can be used for research activities when necessary. Improving the situation of staff salaries and satisfaction are important to ensure productivity.

Performance criteria should be determined within the system of academic staff, and must be taken care to ensure these criteria. In the academic incentives, performance and productivity should be kept in the foreground. The salary of the academic staff with a high performance should be even higher.

The applied contribution of academic staff is indeed an essential condition in increasing the quality of university teaching-learning process. The teaching staff learning and being coherent with what happens in practice will be more successful in theoretical courses. This kind of opportunities should be offered to the academic staff.

Payments received by the contribution given in application-oriented activities directly increases the staff motivation. This will also encourage the social contributions.

Academic staff must understand the goals and objectives of the program, and should be eager and sufficient for teaching-learning and research. It should also have good use of information technology in order to pass information to students in any environment conditions.

RELATIONSHIPS

The external relations of the University can be considered at the local, national and international level. University services are executed through this relationship. Relationships should be conducted and followed within a system.

Universities are global institutions. Universities all over the world can be resembled to a science house. Assuming the house walls are composed by bricks` and every university is a brick of science house. The binders hold together bricks` unity. In this context it is expected that universities maintain important local and international relations.

Exchange of researchers and students between universities enhance the cooperation between universities. The recognition of the university remains essential for such cooperation. For this reason, universities should possess an easily understandable system. There should be predefined needs that universities are required to possess. Qualifications` framework of the programs should be determined and proclaimed. The best output of the work carried out during the last ten years work in Europe is the intensification of relations among universities.

The scientific value consist in benefiting all humanity so the joint development and presenting the outcome to the society should be targeted.

CONCLUSIONS

Universities must improve their performance, modernize themselves and become more competitive – in short, become leaders in their own renaissance and play their part in the creation of the knowledge-based society.

Some actions considered as priority are as follows:

Facilitate Access – Remove Barriers

Facilitating access to lifelong learning is rightly seen as the most significant challenge by universities and nations. The education system must adapt to the needs of people at all ages, and must be able to attract people of all ages into the learning process. It implies that all parts of the system must become more

Guarantee autonomy and accountability

Universities will not become innovative and responsive to change unless they are given real autonomy and accountability. In return for being free from overregulation and micro-management, universities should accept full institutional accountability to society at large for their results.

This requires new internal governance systems based on strategic priorities and on professional management of human resources, investment and administrative procedures. It also requires universities to overcome their fragmentation into faculties, departments, units and to target their efforts collectively on institutional priorities for research, teaching and services. Universities should build up and reward management and leadership capacity within universities.

Ensure structured partnerships with business community

While the public mission and overall social and cultural remit of universities must be preserved, they should increasingly become significant players in the economy, able to respond better and faster to the demands of the market and to develop partnerships which harness scientific and technological knowledge. This implies recognizing that their relationship with the business community is of strategic importance and forms part of their commitment to serving the public interest.

Structured partnerships with the business community (including SMEs) bring opportunities for universities to improve the sharing of research results, intellectual property rights, patents and licenses (for example through on-campus start-ups or the creation of science parks). They can also increase the relevance of education and training programmes through placements of students and researchers in business, and can improve the career prospects of researchers at all stages of their career by adding entrepreneurial skills to scientific expertise. Links with business can bring additional funding, for example to expand research capacity or to provide retraining courses, and will enhance the impact of university-based research on SMEs and regional innovation. To secure these benefits, most universities will need external support to make the necessary organizational changes and build up entrepreneurial attitudes and management skills. This can be achieved by creating local “clusters for knowledge creation and transfer” or business liaison, joint research or knowledge transfer offices serving as an interface with local/regional economic operators. This also implies that development of entrepreneurial, management and innovation skills should become an integral part of graduate education, research training and lifelong learning strategies for university staff.

Match the skill and competences with the labor market

Universities have the potential to play a vital role in the Lisbon objective to equip Europe with the skills and competences necessary to succeed in a globalised, knowledge-based economy. In order to overcome persistent mismatches between graduate qualifications and the needs of the labor market, university programs should be structured to enhance directly the employability of graduates and to offer broad support to the workforce more generally.

Universities should offer innovative curricula, teaching methods and training/retraining programs which include broader employment-related skills along with the more discipline specific skills. Credit-bearing internships in industry should be integrated into curricula. This applies to all levels of education, i.e. short cycle, Bachelor, Master and Doctorate programmes. It also entails offering non-degree courses for adults, e.g. retraining and bridging courses for students not coming through the traditional routes. This should extend beyond the needs of the labor market to the stimulation of an entrepreneurial mindset amongst students and researchers. At doctoral level, it means that candidates aiming for a professional research career should acquire skills in research and IPR management, communication, networking, entrepreneurship and team-working in addition to training in research techniques.

More generally, universities need to grasp more directly the challenges and opportunities presented by the lifelong learning agenda. Lifelong learning presents a challenge, in that it will require universities to be more open to providing courses for students at later stages in the life cycle. It presents an opportunity for universities which might otherwise risk to see enrolments of students directly from school fall over coming years in view of coming demographic change.

In summary, while the integration of graduates in the labor market is a responsibility shared with employers, professional bodies and governments, labor market success should be used as one indicator (among others) of the quality of university performance, and acknowledged and rewarded in regulatory, funding and evaluation systems.

Reduce funding gap

Each country should strike the right balance between core, competitive and outcome-based funding (underpinned by robust quality assurance) for higher education and university-based research. Competitive funding should be based on institutional evaluation systems and on diversified performance indicators with clearly defined targets and indicators supported by international benchmarking for both inputs and economic and societal outputs.

Enhance Interdisciplinary

Universities should be able to reconfigure their teaching and research agendas to seize the opportunities offered by new developments in existing fields and by new emerging lines of scientific inquiry. This requires focusing less on scientific disciplines and more on research domains (e.g. green energy, nanotechnology), associating them more closely with related or complementary fields (including humanities, social sciences, entrepreneurial and management skills) and fostering interaction between students, researchers and research teams through greater mobility between disciplines, sectors and research settings.

All this necessitates new institutional and organizational approaches to staff management, evaluation and funding criteria, teaching and curricula and, above all, to research and research training.

Activate knowledge through collaboration with the society

Society is becoming increasingly knowledge-based and knowledge is replacing physical resource as the main driver of economic growth. Universities therefore need to communicate the relevance of their activities, particularly those related to research, by sharing knowledge with society and by reinforcing the dialogue with all stakeholders. Communication between scientific specialists and non-specialists is much needed but often absent. This requires a much clearer commitment by universities to lifelong learning opportunities, but also to a broad communication strategy based on conferences, open door operations, placements, discussion forums, structured dialogues with alumni and citizens in general and with local/regional players. Working together with earlier formal and non-formal education and with business (including SMEs and other small entities) will also play a role in this respect.

Such interaction with the outside world will gradually make universities' activities in general, and their education, training and research agendas in particular, more relevant to the needs of citizens and society at large. It will help universities to promote their different activities and to convince society, governments and the private sector that they are worth investing in.

Reward excellence and high quality

Excellence emerges from competition and is developed mainly at faculty/department level – few universities achieve excellence across a wide spectrum of areas. Increased competition, combined with more mobility and further concentration of resources, should enable universities and their partners in industry to offer a more open and challenging working environment to the most talented students and researchers, thereby making them more attractive to Europeans and non-Europeans alike. Universities need to be in a position to attract the best academics and researchers, to recruit them by flexible, open and transparent procedures, to guarantee principal investigators/team-leaders full research independence and to provide staff with attractive career prospects.

The Universities serve the societies expectations by providing an excellent education to the most outstanding students, selected and admitted without regard to their background; to pursue scholarship and research of the very highest quality; and to transmit the results of this work for the benefit of the nation and the world. We must honor these commitments.

Information is a common shared value of the society. The most fundamental task of universities is to train qualified manpower equipped with knowledge, and to produce and spread knowledge also. Universities all over the world are the engine of social development. Like in the economic development also in world peace the leading role belongs to university.

Universities should be leading institutions in quality and in quality development culture. There should be established an information system based on total quality management to achieve university quality assurance. Evolvement of information technology has simplified these tasks.

World resources are limited. And on the basis of all troubles lies down a misuse of these resources. University is based on quality management of the waste resources. Rather than the classic management style of the University in the information age in which we live today, universities are source of information, and should adopt knowledge-based analysis based on participatory and transparent decision-oriented style of governance. To improve the efficiency of the university system, quality management system should be adopted. To be successful in teaching-learning process, research, and social contribution the quality assurance system should be operating in University.

In order to ensure quality at Universities, the institutional objectives should be defined and strategies and policies that should lead to these objectives should be determined.

For institutional objectives to materialize the mission and vision of each unit and staff member should be defined and followed up.

The aims, objectives and learning outcomes of study programs at the Universities should have been defined. All operations should be carried out and announced through previously determined procedures. All processes should also be conducted in a clear, reportable and auditable manner.

Universities are universal institutions. They should be in close contacts with their counterpart institutions both within and outside the country. Cooperation in every area should be ensured and emphasis should be put on the importance of cooperation concerning quality assurance.

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New Initiatives to Enhance Research & Innovation Collaborations at IIUM

ABSTRACT

In line with its vision and mission, the International Islamic University Malaysia (IIUM) has decided to focus on two main research niche areas, namely the Islamic Products and Knowledge as well as the Sustainable Development in the Muslim World. Various research clusters formed at IIUM are aligned in these new directions. The Research and Innovation Office has recently been restructured to include new offices that look after the niche areas as well as the international funding, IIUM press, and the innovation and commercialization. In addition, the Research Matching Grant Scheme (RMGS) is enhanced further to promote international research collaborations.

Key Words : IIUM, research, innovation

Introduction:

The International Islamic University Malaysia (IIUM) was established in 1983 and is a comprehensive university comprising 15 academic faculties covering the following areas: Laws, Economics & Management Sciences, Engineering, Architecture and Environmental Design, Education, Information and Communication Technology, Islamic Revealed Knowledge and Human Sciences, Medicine, Allied Health Sciences, Dentistry, Nursing, Pharmacy, and Sciences. The total student population is about 21,000 (16,500 undergraduate students and 4,500 postgraduate students) with 15% international students coming from 90 countries.

Recently, the university has introduced new initiatives to enhance the research and innovation collaborations among the researchers inside and outside the university. This is in line with the Malaysian New Economic Model adopted by the government as summarized in Figure 1.

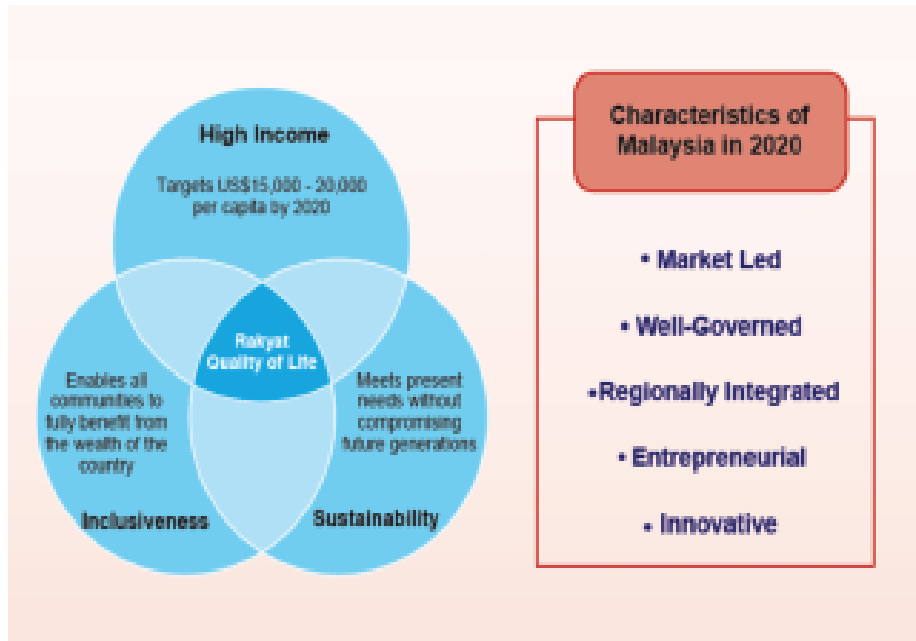


Figure 7. The Malaysian New Economic Model: Goals and Characteristics

Currently, the expenditure on R&D activities in Malaysia is at 0.6% of GDP, well below the United States at 3%, South Korea 3.5% and Taiwan 2.4%. To shift towards a high income economy, there is a need for a strong foundation in research, development and commercialization (R&D&C) activities. Therefore, to strengthen R&D&C activities, the Malaysian Government will undertake the following measures:

First: Rationalising all research funds and grants to be more effective to achieve set targets;

Second: Establishing a National Innovation Centre supported by a network of innovation excellence centres under the Ministry of Science, Technology and Innovation and in collaboration with the Ministry of Higher Education;

Third: Integrating R&D activities with patents, copyrights and trademarks registration to ensure R&D&C processes are implemented more effectively. The cooperation between patent and research agencies will expedite the commercialization of research findings; and Fourth: Providing small and medium enterprises with tax deduction on expenses incurred in the registration of patents and trademarks in the country.

One of the main thrusts of the Ninth Malaysian Plan (9MP), covering the years 2006 – 2010, is enhancing the national capacity for knowledge and innovation and nurturing citizens with “first class mentality”. The country realizes the fact that the most precious assets of a nation are its people. Therefore, there is a need of proper planning and implementation of education and training at all levels, especially when Malaysia aspires to become a developed country with a knowledge-based economy. The following three main strategies are adopted to enhance the human capital development:

- i. increasing the capacity for and the mastery of knowledge,
- ii. strengthening the nation's capabilities in science, R&D and innovation, and
- iii. nurturing a cultured society that possesses strong moral values.



To support the Ninth Malaysian Plan and the Vision 2020, the Ministry of Higher Education has recently unveiled the National Higher Education Strategic Plan that was launched by the Prime Minister of Malaysia. This document discusses the ministry’s vision for the transformation of higher education in Malaysia from now to the year 2020 and beyond. The plan is designed to be broad and comprehensive in its coverage of higher education with high-level plans encompassing both fresh initiatives as well as enhancing the existing programs. The seven strategic thrusts of the National Higher Education Strategic Plan are:

- i. Widening Access and Enhancing Equity,
- ii. Improving the Quality of Teaching and Learning,
- iii. Enhancing Research and Innovation,
- iv. Strengthening Institutions of Higher Education,
- v. Intensifying Internationalization,
- vi. Enculturation of Lifelong Learning, and
- vii. Reinforcing the Higher Education Ministry’s Delivery System

Based on the three principles, knowledge, personal, and interpersonal attributes, the plan has proposed a profile of the desired human capital to be produced by the institutions of higher learning. The model of desired human capital is presented in Table 1.

Attributes of Human Capital with First-Class Mentality*		
<p>Knowledge Attributes:</p> <ul style="list-style-type: none"> • Mastery of core subjects and ability to apply that knowledge • Mastery of Bahasa Malaysia and English, and at least one other global language. • A continuing passion for knowledge through lifelong learning. • Excellent general knowledge and interest in current events. • Appreciation of the arts, culture and sports. • Sound analytical and problem-solving skills. • Awareness of business and management principles and technology. 	<p>Personal Attributes:</p> <ul style="list-style-type: none"> • Goal-oriented, proactive, self-starting, self-disciplined, confident, resilient, motivated, and fiercely competitive. • Intellectually engaging, creative, innovative, and possessing critical thinking skills. • Quick learner, adaptable, and flexible. • Entrepreneurial. • Ethically and morally upright. • Spiritually grounded. • Compassionate and caring (through volunteerism and social services). 	<p>Interpersonal Attributes:</p> <ul style="list-style-type: none"> • Able to communicate and effectively present. • Able to relate and be comfortable with people of all levels. • Able to develop and leverage on personal and professional networks to achieve goals. • Natural leader. • Team player.
<p>* Base attributes. To be customized based on level of study and institutional charter.</p>		

Table 1. Attributes of Human Capital with First-Class Mentality

New Initiatives to Enhance Research and Innovation Collaborations at IIUM

Based on the IIUM 2015 strategic direction “Towards becoming a Research-Intensified University”, the university has recently introduces several new initiatives to promote research and innovation. The first major step is the identification of two main research niche areas, namely, the Islamic Knowledge and Products, and Sustainable Development of Muslim World. As a result, all research clusters, as listed in Table 2, are aligned with the two niche areas. Currently, there are three research and postgraduate institutes at IIUM: the Institute of Islamic Banking and Finance (IIBF), the International Institute of Islamic Thought and Civilization (ISTAC), and The Institute of Oceanography and Marine Studies (INOCEM).

Table 2. List Research Clusters

Women for Progress Research Unit
Quantum Information Research Unit
Electoral Studies Research Unit
Globalization and WTO Research Unit
Basic and Applied Biomedical Research Unit
Bioenvironmental Engineering Research Unit
Functional Food and Nutraceuticals Research Unit
Religion & Science Research Unit
Biomolecular Engineering Research Unit
Halal Industry Research Centre
Land Tenure and Environmental Management Research Unit
Islamic Accounting and Accountability Research Unit
Precision Manufacturing Engineering Research Unit
Testing and Assessment in Higher Education Research Unit
Graduateness Research Unit
Computer Assisted Language Learning Research Unit (CALLRU)
Alternative Dispute Resolution Research Unit (ADRU)
Non-Communicable Diseases (NCD) Research Unit
Environmental Analysis and Virtual Reality Research Unit
Small & Medium Enterprises & Entrepreneurs Development Unit
Mangrove Research and Information Unit (MARIU)
International Law and Maritime Affairs Unit – ILMA
Cyberspace Security
Intelligent Mechatronics Systems Research Unit
KAED Universal Design Unit
Law of Social Obligations Unit (LOSOU)
IT for Development and e-Government (ITDEG)
Family Law and Ethics Unit (FAME)
Qur'anic Guidance for Good Governance Unit
VLSI and System Design Research Unit
Procurement and Project Delivery System Research Unit
Institutional Research on Quality Assurance Capacity Building for OIC Higher Education
Corporate, Securities and Finance Law & Regulation
Advanced Materials and Surface Engineering (AMSERU)

In addition to two new offices handling the two niche areas, the following four new offices are established to enhance the research and innovation activities: International Funding Office, Innovation and Commercialization Office, IIUM Press, and Research Management Office.

The university has also formulated the Research Matching Grant Scheme (RMGS) to enhance research collaborations with international partners. Selected RMGS projects and their partners are tabulated in Table 3. Through this scheme, researches are conducted jointly at two different places and it also allows for researchers mobility.

Another significant initiative is the promotion of patent filing of the new original findings or products by IIUM researchers. More than 31 patent filing was done in the year 2009.

Table 3. List of RMGS Projects

Genetic, bio-chemical and behavioral determinants of neurodegenerative diseases-a multicentre study	Aleppo University, Syria
Zakat Collection, Disbursement and Expenditure: Case Studies of Federal Territory of Kuala Lumpur (FDKL), States of Selangor and Kelantan in Malaysia	King Abdul Aziz University
Distribution of Heavy Metals and their Pollution Effects on Fishes, Green Mussels and Sediments of Coastal Water Pahang, Langkawi Malaysia and Gulf of Oman	Sultan Qaboos University, Oman
Addition of Essential Heavy Metal to Bioactive Components of Aquocous Carica Papaya L. Extract for Improved Wound Healing	Sultan Qaboos University, Oman & University of Queensland University, Australia
Intelligent Autonomous Small Helicopter for Disaster Monitoring	Konkuk University, Seoul Korea
Real-Time Sign Language Analysis, Recognition and Synthesis Based on Image Processing and Multimedia	Messy University, New Zealand
Access Audit In Religious Buildings and Public Spaces in Syria	Damascus University, Syria
Studies on Carotenoids From Local Sources for Food and Nutraceutical Applications	Hokkaido University, Japan
Prediction of Failure Mechanism of Polylactic Acid-Kenaf Fibre Biocomposites Using Acoustic Emission Parameters	Budapest University of Technology and Economics, Hungary
Management Commitment to Service Quality: A comparative Case in Conventional Banking in New Zealand and Islamic Banking in Malaysia	Victoria University of Wellington, New Zealand
Global Metabolite Analysis of Cho Cells Cultured in T-Flasks and Bioreactor using Gas Chromatography Mass Spectrometry	University College Dublin, Ireland
Development of Inorganic Membrane for Microbattery Applications	Centre for Technology of Process Industry, Agency for the Assessment and Application of Technology, Jakarta
An Investigative Analysis of the use of Road Topography Data to Enhance Truck Performance along Roadways	Virginia Polytechnic & State University Blacksburg, USA

Conclusions

The new research and innovation initiatives at IIUM are part of the effort towards becoming a research university in the near future. As a byproduct from this exercise, it is hoped that the university will be able to produce world renowned research institutes that continue to attract high quality researchers and postgraduate students.

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About the Author:

Prof. Dr. Ahmad Faris Ismail is currently the Deputy Rector (Research and Innovation) at the International Islamic University Malaysia (IIUM). He obtained his B.Sc. in Chemical Engineering in 1988 from University of Houston, Texas before getting his Ph.D. in Engineering from Rice University, USA in 1993. He has more than 15 years of university teaching experience and he is currently a Professor of Engineering at the International Islamic University Malaysia (IIUM). He served as the Dean of Engineering from 1997 until 2009, and he was the Co-chairman of the Malaysia Council of Engineering Deans from 2007 until 2009. He has been invited as keynote speakers for various conferences and congresses in Jordan, Saudi Arabia, Sudan, Syria, and Turkey. He has conducted workshop on “Academic Self-Assessment” and “Strategic Plan and Balanced Scorecard”, and he has delivered lectures on “Innovation Ecosystem”, “Curriculum Planning and Management”, “Professional Ethics”, “Towards Outcome-based Education”, and “Research Design and Instrumentation”. He is also a co-inventor for at least seven filed patents of the research products at IIUM. Apart from teaching he has been active in research in the areas of energy and environment, computational fluid dynamics, combustion, simulation and modeling, and engineering education. He has published more than 130 papers in refereed journals and conference proceedings.

Prof.Dr. Arben Verçuni*Vice Rector, Agricultural University of Tirana, Albania*

Agricultural University of Tirana

Agricultural University of Tirana (AUT)

AUT was founded on November 1st, 1951 and given the name “Higher State Agricultural Institute”. It started up with a core subjects in the area of agronomy, therefore this is also the date of establishment of the Faculty of Agriculture.

In 1991, it was named “Agricultural University of Tirana”.

AUT is composed of 5 faculties:

1. Faculty of Agriculture and Environment
2. Faculty of Economics and Agribusiness
3. Faculty of Biotechnology and Food
4. Faculty of Forestry Sciences
5. Faculty of Veterinary Medicine

Part of organizational structure of AUT is the National Center for Professional Training in Agriculture (NCPTA), which was established with contribution of TEMPUS, UM_JEP 17083-2002. So far, this center has organized in the frame of SBCA (USAID component) about 20 training courses with main focus on: Marketing, Management, Production Technology in Food Processing, Production Technology in Greenhouses, Plant Protection, etc.

- AUT has 9581 students:
 - 7129 Full-time
 - 2152 Part-time
 - 300 Master students
- Faculty of Agriculture and Environment (FAE) has:
 - 2349 Full-time
 - 855 Part-time
 - 188 Master students

AUT has 233 academic and 87 supporting staff.

Faculty of Agriculture and Environment has 71 academic and 27 supporting staff; actually it employs respectively 30% and 31% of university academic and supporting staff,.

In the FoA, at BSc level are offered the following study areas and respective diploma:

1. Crop Production-First level Diploma: Agrarian Engineer, Profile-Crop Production
2. Horticulture- First level Diploma: Agrarian Engineer, Profile-Horticulture
3. Plant Protection- First level Diploma: Agrarian Engineer, Profile-Plant Protection
4. Aquaculture and Fisheries Management- First level Diploma: Agrarian Engineer, Profile: Aquaculture and Fisheries Management
5. Animal Husbandry and Livestock Business- First level Diploma: Agrarian Engineer, Profile: Animal Husbandry and Livestock Business
6. Agroenvironment and Ecology- First level Diploma: Agroenvironment Engineer, Profile: Agroenvironment and Ecology

MSc level studies are oriented in the following study directions:

1. Agronomic Sciences:
 - a. Crop Genetic Improvement & Seed and Seedling Production
 - b. Horticulture
2. Animal Production Sciences:
 - a. Technical Modeling & Economics of Livestock
3. Agroenvironment and Ecology

Sources of AUT budget are as follows:

1. State budget
2. AUT own income
3. Industry & other donations
4. International funds

Data related to the respective structure is not available.

AUT Budget

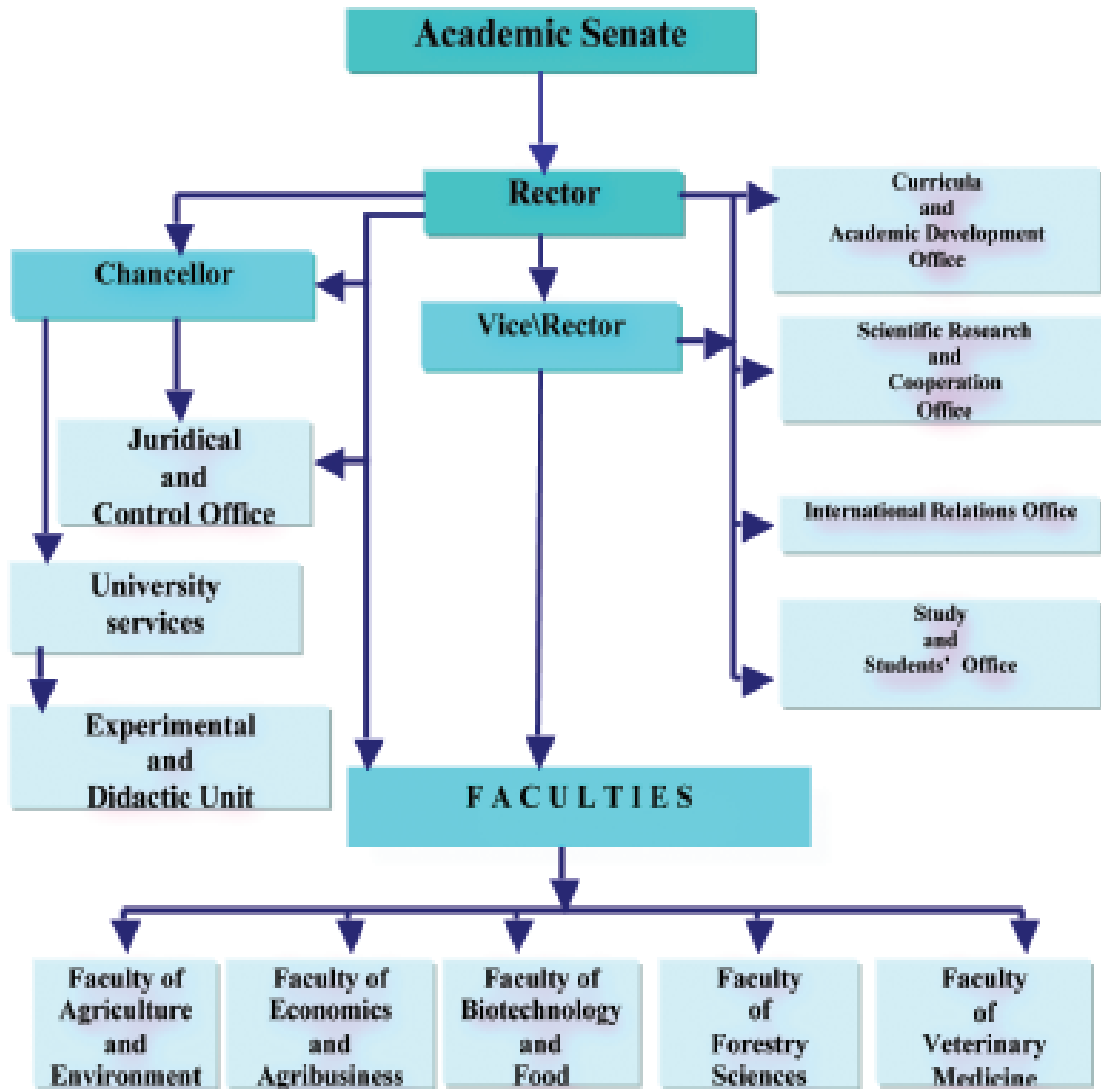
No	Indicators	Planned 2007	Draft budget 2008	% increase in 2008 versus planned 2007
A	State Budget	2.357.258,00 €	5.212.096,77 €	221
B	AUT own income	1.883.064,50 €	1.564.516.12 €	83
	TOTAL	4.240.322,50 €	6.776.612,89 €	159.8

AUT Experimental and Didactic Unit (EDU) owns about 140 ha land. EDU serves to teaching process and scientific research for both students and academic staff.

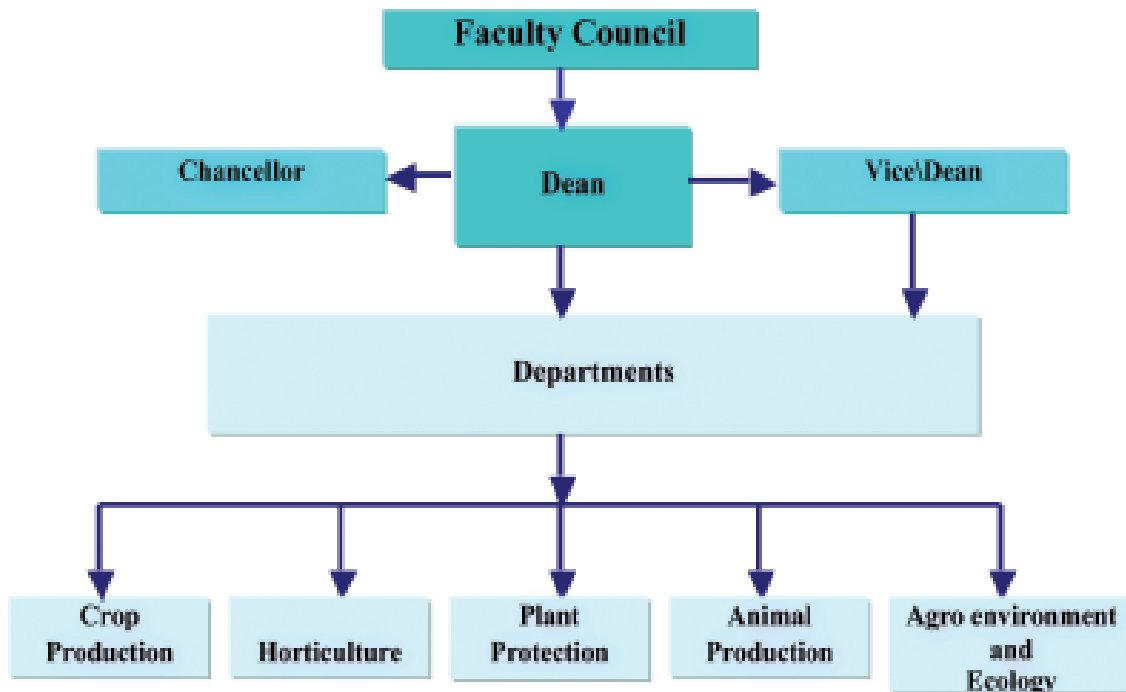
1. Crop production sector
2. Horticulture sector
3. Animal production sector
4. Forestry production sector

All the faculties have different kind of labs for both teaching and research purposes.

Organizational Structure of AUT



Organizational Structure of FAE



National and International Projects at AUE

1. National projects:

- i. "Agriculture and Food" program
- ii. "Biotechnology and Biological Diversity"
- iii. Projects undertaken by the National Environment Agency

2. National projects financed by the government with a special budget starting from 2004. To date, there have been accomplished 12 projects

3. TEMPUS (about 22 during the period 1993-2007)
4. Bilateral Projects with Italy and Greece (30 bilateral projects)
5. INTEREG projects (4)
6. DAAD projects
7. NATO projects

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Benchmarking the Educational Technology Strategies in Higher Education

I. Introduction

‘Technology’ has been an important and main element of societal interactivity and transformation throughout history. Effective developments and rapid changes in the information technologies, especially in the nineteenth and twentieth century, have provided fundamental shifts between the people all around the world. Recent conditions of connectivity have changed the characteristics of geopolitical, economic and cultural sides of lives and most of the change is derived from the rapid advances in information and communication technologies. In the last few years, late-modern societal change is dominantly called as ‘network society’, ‘information society’, ‘knowledge-based society’, ‘shrinking world’, ‘computopia’, ‘digital age’ and so on. In this century, network-based technologies have reshaped the processes and practices of contemporary education, too. Network-based technologies have the potential to dramatically transform higher education (HE) in developing countries and, clearly applicable to science education. With affords of new information technologies, education is tried to be digitalized widely and this connectivity is characterized as the empowerment of individual learners within networks of connected learning opportunities. “In particular, the Internet is often described as underpinning the capacity of individual learners to build and maintain connections with various components of the education system” (Selwyn, 2010:93).

Especially, network-based learning in USA, European Union and China is often seen to embody socio-cultural views and from this perspective, learning is seen as ‘personalization of learning’, that puts the individual’s ability to connect to specialized nodes or information sources. By this way, the learner will be able to have active role –instead of being a passive recipient of learning instruction– in the higher education. Individuals’ self-determination of their learning is the ‘ideal’ way of this structure, but at the same time, wider societal turn towards the networked individualism of everyday life should be criticized and considered. The promise of digital connectivity at the education systems, should be reconsidered carefully by the main actors – educationists at every level of education system, governments, economists and social scientists– about the discussion topics of ‘benefits’, ‘connectivity styles’, ‘reached content’ and ‘relationships between the countries’. In this scope, this study will benchmark the educational technology strategies in higher education of USA, European Union and China, and propose new formulations for the higher education of Silk Road (Central Asia and Middle East) Countries.

II. Renewal of HE Systems

Economic trends of today affected education in different ways. The economic shift from a 'materials' to a 'services and knowledge' base changed the educational needs and areas. Intellectual, innovative, technological and software based economy explode the general information, technological progress rates and changed the directions of knowledge constructions, educational plans and governmental priorities dynamically and constantly. So, in today's world, the basic learning and education aspects are dominantly 'learning to live together', 'learning to know, to do and to be' and, sharply focusing topics are 'ability to communicate', 'work in teams', 'to think critically', 'adopt to change', 'to be innovative and familiar with new technologies' (Guttman, 2003:17). The role of the higher education institutions are changing rapidly and losing the leading position of being research source and knowledge producer. Knowledge access from the Net changed the importance of university libraries and data storage basis. The roles of the academic libraries are rapidly shifting from 'keepers' to 'guides'.

The International Commission on Education for the Twenty-First Century recognized that societies should find solutions to the conflicts between 'global' and 'local', 'universal' and 'individual', 'tradition' and 'modernity' and 'knowledge' and 'capacity of getting it'. As the 1998 World Declaration on Higher Education for the Twenty-First Century stated

without adequate higher education and research institutions providing a critical mass of skilled and educated people, no country can ensure genuine endogenous and sustainable development”

and also stressed

“higher education institutions should lead in drawing upon the advantages and potential of new information and communication technologies by creating new learning environments ranging from distance education facilities to complete virtual higher education institutions and systems, capable of bridging distances and developing high-quality systems of education, thus serving social and economic advancement and democratization as well as other priorities of society” (Guttman, 2003:18)

To reach more student via new technologies means preparing specially timed and sequenced packages for more segments and capture people electronically. New teaching methods –visual effects, various data, interactivity, game effects, different exam styles, etc.– can provide more complex topics to be easily learned. “In delivering educational products, colleges and universities have already used Internet economies of scale to provide online lectures to wider audiences, virtual courses for the public and, tailored lecture and interactive courses for industry” (Quinn, 2001:30). As access becoming easier, recipients of the electronic lessons get more sophisticated and services are changing as strategy, design or model. A very high percentage of advanced skills and formalities are done online. Today's knowledge system implies interactivity and fast access and educational strategies improving for specific opportunities to adapt the new working conditions. Apparent solutions of everyday life restructure research, reference materials, organizations, structures, teaching and learning styles and the dominant role of higher education.

III. Forces Directing New Form of HE

In the the twenty-first century three aspects became dominant in higher education systems: 'Technology', 'Globalization' and 'Competition'. These forces are systematically reshaping higher education. Technology has made its most dramatic impact by enabling learning that can occur either on or off campus, providing students with greater flexibility and eliminating time as a barrier. Because of new technologies arrive with potential applications for online teaching and learning higher education institutions raised their investments for technology and infrastructure supporting. New technologies especially take part in work and social life and higher education systems try to provide new opportunities to the students for their academic procedures and facilities (Armatas, Holt and Rice, 2005:27).

Another important effect of technology is the reshaping of teaching and pedagogic styles. Interests and motivation sources of the students, clear goals, independence and control, interactivity and teaching/learning platforms of multimedia materials, actively participations from different locations are all provided by different communication styles and opportunities. Computer-driven projects transform teacher's role from straightforward lecturer to designer of an active integrated learning experience (Green, Eckel, Barblan, 2002:8). Technology is also driving organizational changes. Partnership is really important in this structure and new offices establishing for coordination and management need to take more responsibilities at the consideration of costs and benefits.

Applied to higher education, globalization creates an opportunity to transfer and export of some developed countries higher education systems. The most important effect of globalization is the intensifying competition across national boundaries. At the scope of higher education, 'brand-name' institutions would eclipse other institutions in the global marketplace and few big, aggressive players would dominate world widely (Green, Eckel, Barblan, 2002: 11). Globalization diminishes the importance of borders and increases the flow of people, ideas and goods around the world. With the new form of higher education, students' demands have changed and these demands carried a wide and sharp competition between universities at the level of staff, resources and reputation. Flexibility, different teaching methods, well-established learning environment, richness of content, user friendly areas and international activity based programs provide greater attendance of students. In higher education, developed countries mostly use new technologies; but, in developing countries traditional technologies are still dominant (see Table 1).

Traditional Higher Education Technologies	New Higher Education Technologies
Books/Textbooks	E-books
Journals	E-Journals
Video	Teleconferencing
Audio-visual broadcasting	IP-TV
Computer	Internet
etc.	Podcasting
	Weblogs/blogs, etc.

Table 1. Traditional and New Higher Education Technologies

In this context, staff and scholars need to be well-educated and ready for the new student profile. Prestige of institutions relies on well-equipped and generally good-working processes. Consultation is getting more important and more complicated instructions of education are need to be simplified and diversified. The universities has gone from the 'center' to 'access node' on the knowledge network. Rapid and constantly interaction possibilities of new communication and education technologies change the education strategies.

IV. Benchmarking the HE and HE Technologies

Human resources are major components of the countries. So, education of the communities raises the potential forces of change. Most of the countries –especially for higher education– realized the importance of developing their students' capacities adaptable to new life conditions. There is significant evidence that qualified and well-planned higher education have positive effects to the communities. To enhance graduates' employability, higher education institutions try to equip them as the practitioners ready for their specific fields. "This integration of the different domains of knowledge, knowing and learning can be seen as a hallmark of excellence in professional education and the design of contemporary learning environments" (Armatas, Holt and Rice, 2005:32). With the potential to serve via Information and Communication Technoligise (ICTs), the ability to take the courses online enables students to bypass their home institution's limited offerings.

ICTs can integrate multiple media into single educational applications and improve the traditional education systems. ICTs are interactive and flexible from time barriers and locational obligations, so both students and education staff can organize the education period and programs efficiently. Low-cost FM transmitting stations and digital radio systems can reach wide lands and most of the populations easily. Via satellite communications, large capacity optical fiber communications and the Internet, open universities and distance education systems offer more opportunities. Digitalization provides storage of huge amounts of texts, images and sound in a same digital form and makes people reach these data easily. Networked learning is founded on access to libraries, scholars, networks and information around the world. Educational software allows the teachers to enrich their presentations. Global classrooms, learning networks and virtual communities can lead to new projects. But to be effective in this kind of education, teachers should be trained in the use of ICTs, there should be systematic management support, integration of existing curricula and learning materials. In this century, ICT based education brings standardization of hardware, software and support services. Information technology needs to be planned comprehensively and coordinated by executive leader and staff. Institutional planning and ICT planning are converging and, information technology is playing an important role as directing and controlling the strategies and goals of institutions. For higher education campus governance structure should include an ICT policy and the campus ICT leader(s) should be effective in all the area to serve seriously (EDUCAUSE, 2003). Some important indicators about these trends are stated in Table 2.

REGIONAL TOTALS FOR GROSS DOMESTIC EXPENDITURE ON R&D (GERD) AND RESEARCHERS								
REGIONS AND COUNTRIES	GERD (in Billions PPP\$)		GERD as % of GDP		GERD per capita (in PPP\$)		RESEARCHERS (Thousands) – (%)	
	2002	2007	2002	2007	2002	2007	2002	2007
World	788.5	1137.9	1.7	1.7	125.5	170.6	5774.3 (100.0)	7093.6 (100.0)
Developed Countries	653.3	864.2	2.2	2.3	546.3	710.3	4023.5 (69.7)	4370.5 (61.6)
Developing Countries	134.0	272.0	0.8	1.0	30.6	58.5	1722.1 (29.8)	2688.6 (37.9)
Less-developed Countries	1.2	1.7	0.2	0.2	1.6	2.1	28.7 (0.5)	34.5 (0.5)
China	39.4	104.9	1.1	1.5	30.6	79.0	810.5 (14.0)	1423.4 (20.1)
European Union	206.1	260.9	1.8	1.8	426.2	531.0	1170.5 (20.3)	1339.9 (18.9)
USA	277.1	368.8	2.7	2.7	952.7	1205.9	1342.5 (23.2)	1425.5 (20.3)
Japan	108.2	147.6	3.2	3.4	848.5	1153.3	646.5 (11.2)	710.0 (10.0)
India	12.9	24.8	0.7	0.8	11.9	21.2	115.9 (2.3)	154.8 (2.2)
Russian Federation	16.0	23.5	1.2	1.1	109.4	164.8	491.9 (8.5)	469.1 (6.6)

Source: UNESCO, 2009; ITU, 2010.

Table 2. Regional Totals for GERD and Researchers

In this part of the study, the educational technology strategies in higher education of USA, European Union and China are considered. New higher education formulations can be effective as tracing the models of developed countries.

IV.1. United States of America

In the long-term growth U.S. plans new education strategies to improve economic-social control and knowledge distribution. The resulting of global technologic convergence reformed the educational needs in all fields. "Today, about 80 % of U.S. employment is in the services industries, and another 12 % of total employment is in service activities (like research, development, design, engineering, accounting, marketing, logistics, personnel, etc.) within product-based companies. The most important elements of both are knowledge-based service activities" (Quinn, 2001:31). These economic and social trends revolutionized educational demands and structures. At first the universities were defined as 'state institutions' and, then they became 'state supported' but, now they are 'state assisted' or 'state located'. With the competitive approach, prestige, quality and priority criteria has changed and directed by the needs of new funding sources. For this reason, most of the U.S. colleges and universities compete for the most academically gifted students (Green, Eckel, Barblan, 2002:11). Technology usage in education is viewed in a broad perspective. Technology is enabling many students in the U.S. to combine their campus-based learning with online courses. Online courses are major form of distributed learning; more than 2,000 U.S. institutions offer them. About 60 % of U.S. universities provide virtual education programmes and many of them are called as 'mega-universities' with more than 100.000 students (Guttman, 2003:45). Some of the enterprises are offering instruction and certificates world widely, training in many languages and operating different from the traditional higher education system accreditation.

U.S. higher education is so diverse and complicated. Because of the competition is the main factor of the institutions, concentrate on teaching in different professional fields are getting more important and most of the universities offer a comprehensive set of undergraduate, graduate and professional degree programs (Eckel and King, 2004). Nearly everywhere the content (information and knowledge) is getting important to compete and universities have a sense of shared intellectual purpose. The Massachusetts Institute of Technology (MIT) launched an open courseware initiative in 2001 to make materials freely available for use. The main aim of this program is to provide access to the materials and, lead an effective-standard model. International higher education strategies include various institutional programs and activities such as student and faculty exchange, study abroad, foreign language programs, joint-degree programs, etc.

IV. 2. European Union

Higher education in EU accession countries is affected by deeper global transformations. Changing global setting for higher education institutions make necessary rethinking of place, role and tasks especially in connection with politics and economy (Kwiek, 2003). The impact of transformations changed the role of higher education to 'knowledge-based societies'. Many distance learning institutions, such as the groundbreaking British Open University founded in 1969, settled with political aims, have evolved with developments in informatics and telecommunications (Guttman, 2003:27). A relatively new emphasis on lifelong learning in Europe is attracting new older and part-time students into higher education diversifying the student population. Computer literacy is in the national agendas of European countries and stressing the changing performance style of education. Open University of Britain has a technology called 'Stadium', allowing thousands of people reach the classes over the Net. Also students use the web for administrative formalities, to consult libraries and to communicate with each other. In the last few years higher education of Europe changed in different ways (see Table 3).

The quantitative-structural change of higher education	Transitions and processes of studies	Post-graduate training and academic staff	Organization, management and governance of higher education
<ol style="list-style-type: none"> 1. the development of social demand for higher education, 2. the consequences of the massive "massification" for the system as a whole and the particular institutions, 3. the institutional structure of higher education and its changes (e.g. through diversification, profiling or vertical/horizontal differentiation), 4. the provision of studies, the interdependencies between the expansion and types of differentiation etc. 	<ol style="list-style-type: none"> 1. access and admission, 2. social inequality and opportunities to study, 3. the social and economic conditions of studying, 4. processes and success of studying and their determinants, 5. teaching and learning, 6. student mobility, 7. early vocational careers. 	<ol style="list-style-type: none"> 1. different stages and paths to a professorship, 2. the effectiveness and quality of doctoral programs, 3. the main activities and time-budget of the academic staff, faculty development, 4. employment conditions and career perspectives especially of young scholars etc. 	<ol style="list-style-type: none"> 1. external relationships between state and university, 2. the internal organization of institutions, issues of efficiency, 3. funding higher education, 4. professional institutional management, 5. new concepts and procedures of steering and allocation, 6. evaluation and quality assurance etc.

Source: Wolter, 2009:3.

Table 3. Changes in the Higher Education of Europe

Ministers responsible for higher education –and European Commission as a full member– have been organizing some meetings in order to establish a European Higher Education Area by 2010 and, this coming together is called as The Bologna Process. This process includes the Council of Europe and UNESCO–CEPES as consultative members, and a range of stakeholder organizations also as consultative members. “There is thus full and active partnership with higher education institutions, represented by the European University Association (EUA) and the European Association of Institutions in Higher Education (EURASHE), students, represented by the European Students’ Union (ESU), academics represented by Education International (EI) and other stakeholder organizations such as the European Association for Quality Assurance in Higher Education (ENQA) and Business Europe representing employer organizations. Since 1998, seven ministerial meetings devoted to mapping out the Bologna Process have been held in different European cities, namely Paris (at the Sorbonne University), Bologna, Prague, Berlin, Bergen, London and Leuven/Louvain-la-Neuve” (EC, 2009:13). The timeline of the Bologna Process is seen at Table 4.



Mobility of students and teachers	Mobility of researchers		Closer links between education and research	Flexible learning paths in higher education	Commitment to produce national action plans with effective monitoring of the social dimension	
		Lifelong learning	Inclusion of doctoral level as third cycle			
		Social Dimension		Reinforcement of the social dimension		
	A system of credits (ECTS)		European Qualifications Frameworks	National Qualifications Frameworks		
A common two-cycle degree system	Easily readable and comparable degrees	Involvement of higher education institutions and students	Recognition of degrees and periods of studies (Diploma Supplement)	Award and recognition of joint degrees		
	European dimension in higher education	Promotion of the European Higher Education Area			Strategy to improve the global dimension of the Bologna process	
	European cooperation in quality assurance		Quality assurance at institutional, national and European level	Standards and guidelines for quality assurance	European Quality Assurance Register (EQAR)	
1998	1999	2001	2003	2005	2007	2009
Sorbonne Declaration	Bologna Declaration	Prague Communiqué	Berlin Communiqué	Bergen Communiqué	London Conference	Leuven/Louvain-la-Neuve Conference

Table 4. The Timeline of Bologna Process

The Bologna Process mainly started with the Sorbonne Joint Declaration on Harmonization of the Architecture of the European Higher Education System, signed in May 1998 by the education ministers of France, Germany, Italy and United Kingdom. The Bologna Declaration on the European Higher Education Area was signed in June 1999 by ministers responsible for higher education in 29 European countries. This declaration became the primary document for the modernization and reform of European higher education. In 1999, the signatory countries increased to the 15 EU Member States, three EFTA countries and 11 EU candidate countries. Also, international institutions –such as the European Commission, the Council of Europe and associations of universities–, rectors and European students participated in drafting the declaration. In the process of the Bologna Declaration, formulating the objective of increasing the international competitiveness of the European system of higher education, with the meeting in Prague in May 2001, main priorities identified and 33 countries participated, with Croatia, Cyprus and Turkey accepted as new members.

“The education ministers decided to establish a Bologna Follow-up Group (BFUG) responsible for the continuing development of the Process. The Council of Europe, the EUA, the EURASHE and the National Unions of Students in Europe (ESIB), later renamed the European Students Union (ESU), take part as consultative members in the work of the BFUG” (EC, 2009:14). At the Berlin Conference, held in September 2003, detailed reports had prepared on the progress and implementation of the intermediate priorities and organizing a stocktaking process and the UNESCO European Centre for Higher Education joined the work of the BFUG as consultative member. By May 2005, the Bologna Process extended to 45 signatory countries and the mid-term achievements of the Bologna Process discussed and the adoption of the ENQA and, the Framework of Qualifications for the European Higher Education Area was marked. The London Ministerial meeting, held on 17 and 18 May 2007, provided a landmark in establishing the first legal body to be created through the Bologna process – the European Quality Assurance Register (EQAR). In this meeting the country membership expanded to 46 with the recognition of the Republic of Montenegro as an independent State in the European Higher Education Area.

The EU tries to organize a universal education qualifications and cooperation among national systems. This push to systematize qualification opens new opportunities to higher education systems. As European countries move to a comparable three-year first degree to provide students a flexible education environment and lead to lifelong learning. “A growing sector in Europe provides attractive alternatives to the traditional university for first degree students who want a more applied approach to engineering and technology” (Green, Eckel, Barblan, 2002:13). Almost all European countries try to renew their staff for new generation students.

IV.3. China

China has a growing system of higher education. In the 1980s China's gross enrollment ratio for higher education hovered around 2-3 %; in 2005, it was 16 % (Kapur and Crowley, 2008:71). These percentages are the results of changes at higher education of China. Chinese higher education was directed by some dominant aspects, as (i) accelerating development of science and technology, (ii) social reform and innovation and, (iii) reform in the economic system and methods of production. Also Chinese, 2003-2007 Action Plan for Invigorating Education stressed five aspects of tendencies: (i) from central regulation to more local autonomy, (ii) from elite to mass education, (iii) from specialization to breadth, (iv) from public to private and, (v) from national to international (Brandenburg and Zhu, 2007:35). For the purpose of renewal higher education, in 1995, the Chinese government launched the Project 211 –the title refers to the aim of building up 100 top level higher education institutions and key disciplines in the 21st century. First of all, Project 211's main target was to improve institutional capacity, and then development of key disciplinary areas and in the end development of public service system in higher education. In 1997, a strong movement of cooperation between Chinese universities and Western Universities began. Today, China established educational relationships with Europe, Central, North and South America, Oceania, Africa and the rest of Asia (Brandenburg and Zhu, 2007:17). In China, the higher education system –programmes, accreditation, methods, etc.– both carries the aspects of U.S. and U.K. systems. In general, China's higher education institutions are as diverse as European and North American countries. There are 1.650 regular higher education institutions, 528 adult institutions and 214 private higher education institutions (Brandenburg and Zhu, 2007:22-24).

In China, the higher education institutions are serving in different ways. In 2004, nearly 4 % of the whole student population were enrolled in graduate programmes, 64 % were enrolled in undergraduate or short cycle programmes. Students in adult learning programmes (20 %) forming the second largest market segment and 12 % of students enrolled in web-based programmes. In 2006 approximately 4.1 million students graduated from universities (Kapur and Crowley, 2008:71). China invested massively in infrastructure and financed educational projects to equip the schools with new technologies. The Application of Modern Educational Technology Project aims to introduce computers and the Internet into schools. Chinese Central Radio and Television University use mass communications technology to reach students who do not have access to conventional universities (Guttman, 2003:46). In 2006, China had almost 6 million more students than the U.S. and 10 times as many students as Britain. To achieve this expansion, over 250 new teacher-training colleges were established and, qualified graduate teachers were offered better housing, remuneration and healthcare by Ministry of Education (Brown and Lauder, 2010:232). Because of its population, China has wide range of e-learning policies and projects. Government identifies the most appropriate, cost-effective and sustainable technology to direct the educational goals.

V. What We Learn and How We Use?

The Silk Road was the information super highway of its age, serving as the conduit not only for goods but also for the transmission of knowledge and ideas between East and West. The Silk Road has had a unique role in foreign trade and political relations. Historical conditions were possible for different nations to develop their own knowledge, culture and use the information of others without well developed mobility schemes for their people. In the 21st century, the Silk Road has a really important characteristic location for the other continents. The main countries at this location –Afghanistan, Iran, Iraq, Kazakhstan, Kyrgyzstan, Pakistan, Syria, Tajikistan, Turkey, Turkmenistan, and Uzbekistan– are in transition process.

Society related improvements were overviewed as a whole at the “Conference on Information Society and Regional Cooperation in Information and Communication Technologies for Development” held in Bishkek, on November 2004. In the conference, there were three important aspects for governments, business and community leaders to consider: (i) the challenges to close the digital divide, (ii) the opportunities provided by regional integration, (iii) the new knowledge-based economy –which has become an engine of growth in developed market economies (Tellan, 2007).

SELECTED SILK ROAD COUNTRIES	TOTAL POPULATION (000) [2007]	GDP PER CAPITA (PPP) US\$ [2006]	PUBLIC EXPENDITURE ON EDUCATION as % of GDP [2007]	PUBLIC EXPENDITURE ON EDUCATION as % of TOTAL GOVERNMENT EXPENDITURE [2007]	GROSS DOMESTIC EXPENDITURE ON R&D as % FINANCED by UNIVERSITIES [2006]
AFGHANISTAN	27 145	n.a.	n.a.	n.a.	n.a.
IRAN	71 208	9 906	5.5	19.5	11.2
IRAQ	28 993	n.a.	n.a.	n.a.	n.a.
KAZAKHISTAN	15 422	9 832	2.8	12.1	14.7
KYRGYZSTAN	5 317	1 813	6.6	25.6	0.1
PAKISTAN	163 902	2 361	2.8	11.2	12.9
SYRIAN ARAB REPUBLIC	19 929	4 225	4.9	16.7	n.a.
TAJIKISTAN	6 736	1 610	3.4	18.2	0.3
TURKEY	74 877	8 417	3.1	n.a.	n.a.
TURKMENISTAN	4 965	4 291	n.a.	n.a.	n.a.
UZBEKISTAN	27 372	2 192	n.a.	n.a.	n.a.

n.a. : Data not available

Source: UNESCO, 2009.

Table 5. Statistics of Selected Countries from Silk Road

Adopting the structural changes is taking time and education as its nature is not a process that is complete. The universities of Silk Road countries are facing challenges to finance the activities. The infrastructure of new technologies is still expensive and has a continuing newness. 80 % of university funds may come from public sources, a rising proportion is coming from private sources. The Ministers who signed up Bologna process, (i) were looking to start a process of convergence in the structures of higher education, (ii) were looking for measures that would build trust between their educational system and, (iii) they were looking for something that would increase the standards and quality of their higher education system.

The universities of Silk Road countries, as most of the countries in the world, mainly try to develop ITC advanced educational technologies to: (i) build a system of knowledge support, (ii) settle a knowledge control, (iii) provide coordination via university management control system and, (iv) making easy the registration system. The Digital Access Index (DAI) measures the overall ability of individuals in a country to access and use ICTs. It consists of 8 variables organized into 5 categories (infrastructure, affordability, knowledge, quality, usage). DAI is ranking between 0 to 1 and 1 equals to highest access. DAI is changing from country to country as following: China 0.79, U.S. 0.78, Japan 0.75 and average of European Union 0.70. When we look at the other countries for their DAI level (Russia 0.50, Turkey 0.48, Iran 0.43, Kazakhstan 0.41, Turkmenistan 0.37, India 0.32, Kyrgyzstan 0.32, Uzbekistan 0.31, Syria 0.28, Pakistan 0.24, Tajikistan 0.21) it can be implied that the Silk Road countries should reach the world average of 0.71 (Sciadas, 2005; ITU, 2010). For this reason, developing a global partnership –preventing digital divide– for development can be the main goal, proposes achieving the world average of DAI.

VI. Conclusion

The notion of connection affects the all aspects of human life. In the twenty-first century, the knowledge systems are heavily relying on using science, technology and innovation. In the case of higher education, usage of new communication technologies should be carefully considered by the policy makers. Because emerging technology-based pedagogies reinforce important academic assumptions, such as learning environments, the changing roles of academic staff, various information and knowledge platforms, actors – including governments and all parts of the society– need to share and discuss the topics of ‘benefits’, ‘connectivity styles’, ‘reached content’ and ‘relationships between the countries’. It’s necessary to plan and direct the infrastructure of this new form of higher education as a governmental project.

Playing a role as a shaper of the future every developing country should think strategically about using their limited resources for science and technology. As a conclusion, there can be some recommendations about the points the entire world face with:

- Joint programs in distance education and open university technologies
- Joint programs for knowledge sharing
- University-industry collaboration at the basis of education technology production
- University-public sector collaboration at the addressing of national technology challenges
- New quality-control standards should be settled
- Forming partnerships with other institutions or organizations to enhance the capacity
- Considering the technology advancement, compatible to local features, cultures and needs of countries
- Supporting the handicapped students’ education by compatible technologies
- Integration with industry and support the new job opportunities
- Convey the national and international provisions
- Increase the student, academic staff and administrative staff exchange programs

The emphasis on science and technology, prerequisite to develop a strong, advanced and innovative higher education plans, programs, directions and staff. And also, to reach an effective higher education system there should be interactions with other countries. Every country has the potential to transform their higher education clearly applicable to the needs of everyday life. For all of the goals regarding higher education there should be effective and practical strategies and support.

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The Extend and Impact of Governance in Higher Education

1. Introduction

There is a demand in higher education system to change. The role and contribution to economic success of the higher education institutions are vital. The higher education institutions such as the universities are expected to create knowledge; to improve equity; and to respond to student needs – and to do so more efficiently. They are increasingly competing for students, research funds and academic staff. Higher education institutions are having to work hard to meet funding and regulatory criteria and at the same time to strengthen their market position. Higher education institutions need to develop a creative balance between academic mission and executive capacity; and between financial viability and traditional values. Governments have to balance the encouragement of excellence with the promotion of equity. The administrations of higher education institutions must be much more than administration in this more complex environment. The assurance of their independence and dynamism of higher education institutions can only be possible with governance.

The concept of "governance" is not new. The word governance derives from the Greek verb meaning to steer and was used for the first time in a metaphorical sense by Plato. It then passed on to Latin and then on to many languages. Governance simply means the process of decision-making and the process by which decisions are implemented (or not implemented). Good governance is an indeterminate term used in development literature to describe how public institutions conduct public affairs and manage public resources in order to guarantee the realization of human rights.

Governance is as the exercise of political authority and the use of institutional resources to manage society's problems and affairs. An alternate definition sees governance as the use of institutions, structures of authority and even collaboration to allocate resources and coordinate or control activity in society or the economy. Governance, therefore, is a purposive act, that is directed by policy and which shapes the policy in order to derive certain ends. Governance also entails the provisions not just of policy, but also of resources, human and material, which are necessary to ensure the realisation of the stated ends. Governance can be used in several contexts such as corporate governance, international governance, national governance and local governance.

Since governance is the process of decision-making, Government is one of the actors in governance. Other actors involved in governance vary depending on the level of government that is under discussion. Good governance has 8 major characteristics. It is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law.



Figure 1. Characteristics of good governance

Participation: A key cornerstone of good governance is the participation of both men and Women, and could be either direct or through legitimate intermediate institutions or representatives.

Rule of law

Good governance requires fair legal frameworks that are enforced impartially and also requires full protection of human rights.

Transparency

Transparency means that decisions taken and their enforcement are done in a manner that follows rules and regulations. It also means that information is freely available and directly accessible to those who will be affected by such decisions and their enforcement. It also means that enough information is provided and that it is provided in easily understandable forms and media.

Responsiveness

Good governance requires that institutions and processes try to serve all stakeholders within a reasonable timeframe.

Consensus oriented

Good governance requires mediation of the different interests in society to reach a broad consensus in society on what is in the best interest of the whole community and how this can be achieved. It also requires a broad and long-term perspective on what is needed for sustainable human development and how to achieve the goals of such development.

Equity and inclusiveness

A society's well being depends on ensuring that all its members feel that they have a stake in it and do not feel excluded from the mainstream of society. This requires all groups, but particularly the most vulnerable, have opportunities to improve or maintain their well being.

Effectiveness and efficiency

Good governance means that processes and institutions produce results that meet the needs of society while making the best use of resources at their disposal. The concept of efficiency in the context of good governance also covers the sustainable use of natural resources and the protection of the environment.

Accountability

Accountability is a key requirement of good governance. Not only governmental institutions but also the private sector and civil society organizations must be accountable to the public and to their institutional stakeholders. Accountability cannot be enforced without transparency and the rule of law.

1.1. Why should governance be so important in public higher education institutions?

It is important in as much as public higher education institutions are not simply owned by individuals as private enterprises, but that they seek to accomplish some stated national development goals. Some of these objectives are to provide the store of knowledge for public benefit and human development. In fact, society places enormous trust and resources in the hands of universities to help ensure the cognitive development and emotional maturity of the learners, to create a new knowledge and information society; in other words, to make the future of the society today. Governance engages in the knowledge enterprise; sourcing, developing, creating and disseminating new knowledge and to advance knowledge which knowledge in turn is critical for societal growth and stability. Higher education institutions are about individuals. It creates individuals of learning and culture, intellectual and civilised society which will make its own contribution to the advancement of society.

Higher Education governance is fundamental to achieving the full range of following purposes of higher education.

- Preparation for the labour market;
- Preparation for the life as active citizens in a democratic society;
- Personal development
- Maintenance and development of a broad, advanced knowledge base.

The range of relevant factors in higher education governance should reflect the multiplicity of purposes of higher education.

Governance is crucial to ensure quality culture in higher education. It would not be possible to achieve quality higher education without good governance. The good governance in promoting social cohesion and in affording equal opportunity to higher Education is extremely important. Besides, allowing sufficient flexibility to take account of the specific contexts and traditions of higher education institutions is within the basic principles of good governance in higher education.

1.2. Spending Strategies regarding the Governance of Higher Education Institutions

Sound and creative financial management is a crucial aspect of a flourishing autonomous university. It is a necessity if the university's teaching and research work is to increase in quality and quantity. Universities are complex institutions, dealing with many services, clients and disciplinary fields. This means that they will constantly have to review their operations with an eye upon the demands placed on them by students, the labour market, sponsors, and society at large. With governments reconsidering their contributions to the higher education sector, universities will find it absolutely necessary to rethink their policies and internal processes, including their financial management. The allocation of resources to carefully selected activities forms an important part of a university's financial management.

1.3. Key concepts

Spending strategies are part of the financial and organizational tools used by university managers in steering their organization. As such, they can be placed within the broad framework of the university's planning and control cycle, which connects the two words strategy and spending which are contained in the term "spending strategy". The planning and control cycle is shown in Figure 2.

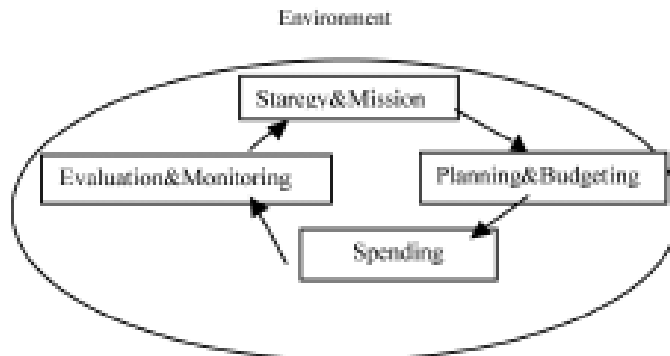


Figure 2. The planning and control cycle

The figure shows that spending forms part of a cycle. Spending is driven by a projection of the institution's planned activities, which are translated into a budget. The budget also includes revenues from sources other than the government. Indeed, some universities have explicit policies for generating funds from a variety of sources. This will all show up in the budget and its accompanying plan. Along with the items contained in the budget comes a specification of responsibilities and spending authority for the units that receive financial resources, i.e. the budget holders. Where a budget normally is a one-year spending plan that identifies the sources and uses of funds, it is important to realize that the institution's planned activities are derived from — or rather, will have to fit in — the overall mission of the university, that is: its purpose, its strategic plan. The strategic plan sets out the organizational goals as well as the general approach adopted by the university to achieve those goals. Whether actual spending conforms to original plans and whether the university's goals are achieved should be monitored on a regular basis. The monitoring and evaluation normally does lead to information which may be used to adjust plans and behaviour in order to enhance the institution's performance in terms of effectiveness and efficiency. All of this is taking place in a process of interaction with the outside world, that is, with the institution's environment.

2. The external environment and its impact on the university

Universities are complex systems. They create, interpret, process, distribute, and store knowledge. They do so by offering a wide range of services, such as offering courses to undergraduate students, training postgraduate students, doing research for different parties, generating inventions for industry, offering consultancy services to businesses, supplying short-term training programmes on demand, and offering cultural and (sometimes) sports facilities to students and the general public, especially those living in the region. Universities, therefore, are multi-product enterprises which operate in a dynamic setting that places a wide range of demands on universities. This is nothing new; the university has always been like this. However, there is reason to believe that, especially where these demands are concerned, important changes are taking place. These changes result from:

- changes in the relationship between government and higher education institutions;
- the effects and manifestations of the emerging knowledge society.

2.1 Changing coordination mechanisms

2.1.1. Fiscal pressure and marketization

The first set of changes comprises two trends, which can go under the headings of fiscal pressure and marketization. The first, fiscal pressure, is a familiar topic which is well-documented in literature and policy documents on higher education. It relates to the trend that governments world-wide are allocating less public funds to universities compared to previous funding levels. Parliaments are cutting back on the tax money invested per student. Other sectors, for instance the health sector, the justice system, and, closer to the higher education sector, the primary and secondary education sectors, have in recent years been put well-above the higher education sector as far as their share in public spending is concerned. Governments are also becoming more selective in their funding. In general however, governments are demanding higher education institutions to "do more with less" and to seek additional non-public funds in order to compensate for the gradual reduction of public appropriations.

2.1.2. Regulatory frameworks

The second trend which also concerns the relationship between government and higher education institutions relates to the shift in the regulatory framework in which universities have to operate. One can speak of a shift from regulation by control towards a setting up of boundary conditions within which universities and colleges have to operate. Some researchers have labelled this a shift from a state control model towards a state supervising model. However, this trend is not just one of loosening the ties between government and universities and thereby increasing the operational autonomy of the (still public) higher education institutions. It also stretches into the areas of accountability for the public funds provided to the sector (through quality assurance) and the way in which these funds are allocated to the institutions (the allocation mechanisms). In short, the conditions and the mechanism for the state financing of higher education institutions are subject to change. As concerns the topic of accountability, reduced state intervention in operational matters is a trend which can be widely observed in Western Europe. However, it is combined with a trend of increased government interest in matters such as quality assurance, which previously was left primarily to the academic community. The soundness of the university's activities and its financial management therefore will have to be ascertained through a system of reporting and monitoring, looking at the quality of the outputs as well as to the institution's inputs and its administrative procedures. Ideally, the university's internal management and its spending strategies should be constructed so as to meet the conditions attached to funding, and should give the state confidence that it can allow the universities the maximum operational autonomy. Manifestations of operational autonomy in the area of finance can be:

- lump sum funding;
- a decentralization of decisions on the terms of employment for university staff;
- a transfer of property and infrastructure from the state to the institutions;
- the freedom to set levels of tuition fees;
- allowing universities to undertake a wide range of income-generating activities

2.1.3. Funding mechanisms

Looking at the mechanism of state funding, one can observe virtually anywhere a change in the relationship between government and public sector-dependent organizations. This change has been labelled as "the introduction of market coordination mechanisms", or "a shift from government to governance" or "interactive governance". Suffice to say that these changes affect both established government-university relationships as well as the traditional mode of operation in universities. Changes in the state funding methodology, and in rules relating to non-state funding are likely, indeed may be intended, to trigger changes in the objectives which the university sets and how it manages its finances. Marketization in higher education is manifested — amongst other things — through an increased competition for funds, the introduction of user charges, and a strengthening of consumer interests.

Universities are increasingly urged to compete for research contracts and students (and the funds — public as well as private funds — that follow from recruiting students). In doing so they are requested to deliver value for money and pay attention to the quality of the services they deliver to their students and the sponsors of their research. In many higher education systems, students are requested to meet a substantial share of the cost of their training, either by paying tuition fees or by having to accept that they will have to rely on loans (instead of grants) to meet their living expenses. This fact should make students more aware of the personal human capital investment they are making by taking part in higher education and, consequently, should make them more cost-conscious and encourage them to ask for high-quality programmes delivered by universities. In national funding mechanisms this requirement for "value for money" is reflected through the use of performance-based budgeting approaches. In this type of funding mechanism, the public funds are allocated to the universities on the basis of some measure (or indicator) of institutional performance (or output). A performance measure for teaching activities can be the number of graduates (i.e. diplomas) or the credits accumulated by students; for research activities it can be some measure of research quality (e.g. a research rating based on some quality assessment or bibliometric measurement). Performance-based funding differs from traditional types of budgeting, like the allocation of budgets on the basis of requests (activity plans) handed in to the budgetary authorities. This is known as negotiated funding. A very common approach is funding that takes place on the basis of some projection of institutional costs. This is known as input-based funding. In fact, negotiated funding is a form of input funding. In contrast to this, performance-based funding (PBF) is believed to stimulate productivity, cost awareness, creativity, and responsiveness in the higher Education sector. PBF is often combined with a policy of deregulation and decentralization from the state to the institutions. A natural question that arises immediately is, if budgeting systems change at the systems level, do similar changes always take place at the institutional level and do the intended effects really show up?. Indeed, one may expect the substantial degree mirroring of external funding mechanisms in the institutional resource management.

2.2 The knowledge society

The second set of factors that affects the "inner life" of universities is originating from now widely held beliefs that our society is rapidly transforming into a so-called knowledge economy. The key characteristic of the knowledge economy lies in the belief that wealth (or productivity) is increasingly dependent on the development and application of new knowledge by specialist knowledge workers. It is not so much physical capital, or human skills (human capital) that determine economic growth, it is the nation's capability to apply knowledge to knowledge itself that is essential to economic development. Economies are increasingly being built on a foundation of information, learning and adaptation. And it is the power of the modern information and communication technology that makes a lot of this possible and which gives the global economy a new technological base.

Gibbons et al. (1994) have identified globalization — in other words the intensification of international competition in business and industry — as the driving force behind a significantly increased supply of and demand for "marketable knowledge". Firms that wish to compete in the global economy will have to possess the organizational abilities (knowledge) that empower them to maintain or increase their competitive advantage in a turbulent market environment. One means of coping with this competition is collaboration (especially through mergers and alliances), including alliances with knowledge suppliers.

This fact places new demands on higher education. It implies that for firms there is a need to have and/or train a flexible and versatile workforce. Firms, therefore, should express a continuous demand for courses in which their employees are retrained and "re-tooled". In other words, lifelong learning will become an absolute necessity. Universities should play an important part in responding to the demand for lifelong learning. One could even maintain that this extends to the employees of the university itself (academics and other staff). The university staff should also be able to work with new and fast-changing technologies. However, where the teaching of the university's students is concerned, the most important implication of the knowledge-driven economy will be that students should be prepared for a labour market in which they could change jobs four times during their working career.

Students should then acquire appropriate skills, a requirement to be reflected in the university curriculum. It could lead to a curriculum which contains an appropriate dose of multi-disciplinarity, meaning that models, concepts and processes derived from different disciplines would be included from early on in the programme. Students can no longer be trained to become specialists. They should learn to combine (or integrate) knowledge from different scientific fields — or at least to communicate with specialists from other fields. This observation — even though it may seem rather extreme — should have enormous implications not just for the contents of the curriculum, but also for its length. Programmes may become shorter in duration. As a result of this, the funding of higher education institutions, their organization and, therefore, their internal resource allocation methods could be forced to change accordingly.

3. Autonomy, Accountability and Flexibility

Flexibility and autonomy are key issues for responding to today's challenges. In short, the challenges are:

- increasing efficiency and effectiveness;
- seeking additional and diversified funding sources;
- adjusting to changing coordination mechanisms (state/universities) aimed at marketization;
- competition and performance-based funding;
- adjusting to the emerging knowledge-driven economy.

To find answers to the challenges above, it is most important to understand autonomy and flexibility the university enjoys.

3.1 Autonomy and flexibility

To determine university autonomy, an important element of assessment relies on institutional spending freedom as regards the basic (or core) funding received from the government. Following factors determine the degree of autonomy:

- the regulation of student places (number of selection of students)
- the right to start new programmes
- the university's personnel policy (especially academic staff salary scales)
- the use of budget surplus at the end of the fiscal year
- decisions to develop university facilities or new property
- membership of external stakeholders in the university's main governing bodies.

In general-and stated in a slightly crude way-the stronger the degree of government regulation and external involvement in these areas, the smaller the room for universities to adjust to changing conditions and future challenges.

3.2 Accountability

Autonomy is always accompanied by accountability. Accountability relates to the fact that the government usually requires the university to demonstrate that it has used public funds efficiently and effectively while trying to achieve national goals. Accountability to the government and the public at large may come from:

- the composition and powers of the governing body
- strategic planning
- academic quality assurance
- government financial audit

Government regulations with respect to the university's governance structure may request for the inclusion of representatives from civil society in the main governing bodies. Next to the usual representatives from the university community (academics, students, support staff) in bodies like the Senate or the University Council, the participation of "outsiders" should guarantee an extra check for the interests of business and society in the university's decisions and strategies. A fact is that almost all countries have students sitting on the Senate as

(elected) members. Decisions often need to be made quickly, if opportunities are not to be missed. This implies a streamlining of governance (getting rid of some of the committees that often have to be consulted before decisions can be made).

When engaging in strategic planning, a university demonstrates to the government and other stakeholders that it has set itself credible goals, of value to society, and that it is deploying resources effectively to achieve them. Often strategic planning exercises translate into so-called strategic plans or development plans. Apart from the attention paid to the primary activities, such as education, research, services to community, part of such plans could be devoted to quality assurance. By implementing a credible quality assurance process, the university should be able to demonstrate that it is continually monitoring the quality of its work.

The "funding contract" between the university and the government, is an important accountability device. In general, the way in which the budget is prepared determines the character and detail in the accountability information the government requires from universities.

Government financial auditing leads to insight into the financial health of the university. It is extremely important for a government to know whether a university is able to "balance the books" and meet its financial obligations in the short as well as the long run. By having accountants yearly check the financial statements (income and expenditure accounts, balance sheet, cash flow statement), the university can show how sound its financial position is.

4. Recommendations

Considering the university of the future, the following recommendations can be made:

1. Legal status and autonomy of universities

- Universities should be granted a non-profit legal entity status. Being a legal entity would allow universities the required autonomy in financial, personnel, and operations management to meet the new challenges. Real autonomy is the key for quality, efficiency, and responsibility.
- Excessive government bureaucracy and old-fashioned governance structures could be streamlined by making universities legal entities that are accountable mainly for their results, not so much for the details of the processes.
- Universities should have clear intellectual property rights and the right to set up separate for-profit companies to commercialize their know-how and patents. The proceeds from university-owned companies could be used to increase the endowment funds of the university.
- Within limits, universities should have the right to charge tuition from students. In a social welfare system, governments may then reimburse the student fully or partly through scholarships and other forms of student financial support.

2. Accountability

- Accountability would be increased by granting universities full financial autonomy and setting up professional, transparent accounting and auditing systems.
- Quality assessment by international peer reviews, and in some fields through accreditation schemes, is an essential part of the accountability system. Cooperation of quality assurance (accreditation) agencies is desirable.

3. Decentralization

- The subsidiarity principle inside the university is recommended. The centre can add value to the university by defining the overall vision, mission, quality standards, and the way of doing things.

- Decentralization is a good way to empower the departments to make initiatives and to become conscious of the financial facts. Strategic initiatives require a balanced "bottom up - top down" approach. Strategic initiatives can be financed by reallocating part of the overhead.

4. Increasing efficiency

- Decentralizing cost cutting and allowing the use of outside services can lead to increase efficiency.
- International benchmarking in specific services and academic fields is a useful tool for improving quality and efficiency. World-wide benchmarking projects would be welcome.
- Focusing in specific academic fields improves the efficiency but at the same time enough interdisciplinary options have to be created through networking.

5. Increasing revenues

- The university needs clear guidelines not to drive out good money.
- Long-term partnership with alumni, regional authorities pays off also financially.

5. Conclusion

This paper discussed issues related to governance and decision-making within higher education. I have placed such decisions in the wider context of trends affecting the university's environment, and a number of general management issues have been addressed.

Higher education is moving towards a new system of governance. Government is generally withdrawing from direct management of institutions, yet at the same time introducing new forms of control and influence, based largely on holding institutions accountable for performance via powerful enforcement mechanisms including funding and quality recognition. Institutions that can no longer take their continued existence for granted are having to work hard both to meet the criteria embedded in funding and regulatory regimes and at the same time to strengthen their position in the marketplace.

It is within this more demanding environment that the internal governance of higher Education institutions is being reassessed. Such institutions need to be able to develop clear organisational strategies backed by decisive and co-ordinated implementation if they are to survive and thrive. The art of policy making will in future involve ensuring that public goals are met in higher Education through influence rather than direction.

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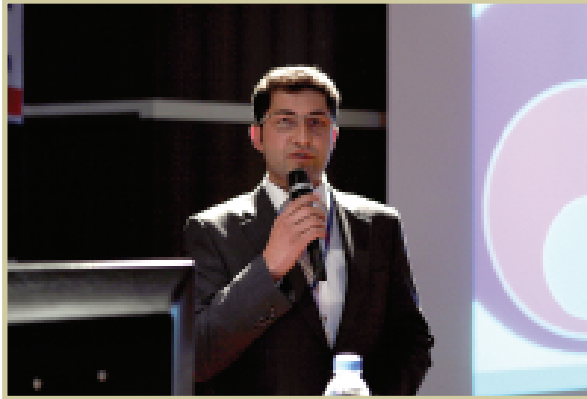
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International Colloboration Opportunities Through E-Learning : Practices at Atatürk University

Collaborations between Universities can be performed on various areas such as research, project and education. Collaborations in instructional activities include faculty and student exchange program, joint programs or shared learning and teaching resources. E-learning provides flexible options for collaborations in education area. Possible collaborations related to e-learning categorized in to three main levels: Shared material, course and program. The important benefits are presented in terms of student and instructor. Both students and instructor may have global and diversity instruction experiences. It is possible to have collaboration in synchronous and asynchronous distance education programs. Atatürk University has High Quality Human Resources on pedagogic and technical issues related to e-Learning. The courses were given through interactive learning packages, lecture notes and videos on the LMS. Atatürk University would like to have and host online collaborations between universities.

Introduction

The mission of the global education collaboration is to bring people together in order to build the professional relationships necessary for effective service and research. Collaboration can be performed in many forms. The basic forms are research, project and education. E-learning provides flexible options for collaborations in education area. As e-learning collaborations between universities increase, there is a concern that little has been done to assess the quality and effectiveness of the resulting virtual courses.

Collaborations between Universities

Collaboration between universities is sharing resources of any type with one or more partner universities. International collaboration and integration initiatives have increased in the framework of organizational cooperation at different levels and in different issue areas (Toprak, 2006). The forms of collaboration between universities are program, project and people (Figure 1). Programs collaboration can perform by sharing courses and programs. Students and scholars make academic projects. All of these constitute global education collaboration.

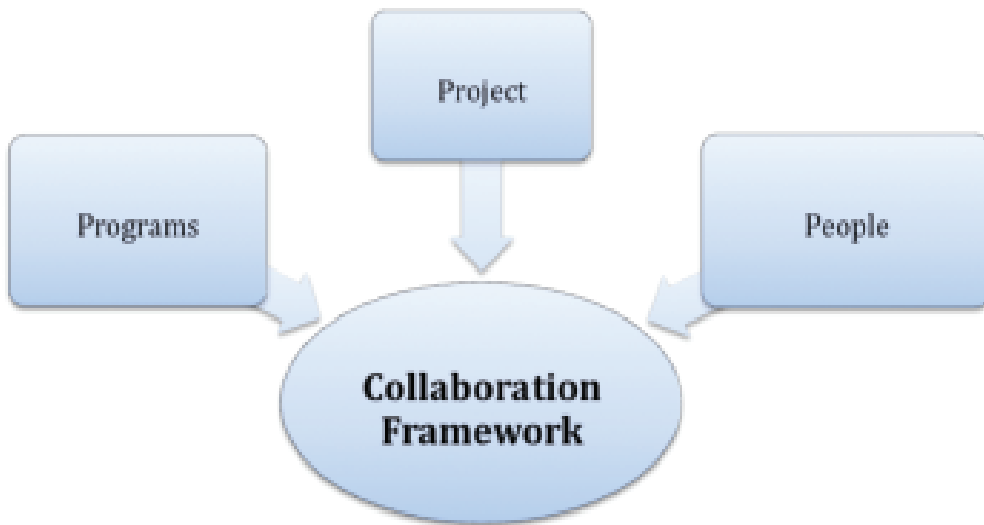


Figure 1. Collaboration Framework

Collaborations through E-Learning

In e-learning, it is possible to have collaboration between universities in the same city, state, country and region anywhere in the world. The possible collaborations related to e-learning may be categorized into three main levels: Shared material, course and program. Universities may share their e-learning contents or they may create learning material repositories together, in context of a consortium or a project. At course level collaborations, one university may serve some online courses for partner. Universities may share pool of e-courses and they may serve live classroom sessions to make another university student to attend its class. Program level collaboration means that offering joint programs by many universities. These programs may be open to international applicants (joint PhD programs, joint undergraduate, joint vocational training etc.).

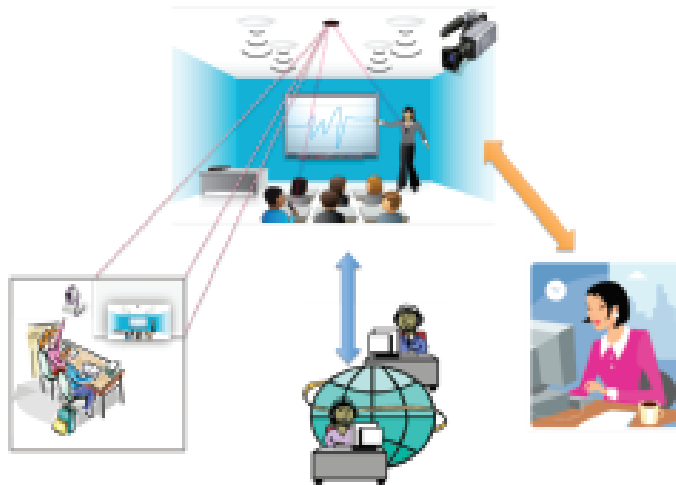
Program	<ul style="list-style-type: none"> ▪ Joint PhD programs, Joint Undergraduate, Joint Vocational Training
Course	<ul style="list-style-type: none"> ▪ Serving courses online for partners, Having shared course pool, Live classroom sessions
Material	<ul style="list-style-type: none"> ▪ Course Contents ▪ Video, Animation, Presentations ▪ Learning Object Repositories-Open Courseware

Figure 2. Collaboration through e-learning

In order for collaborative e-learning to take place successfully, it is crucial that the learner feels part of a learning community where its contributions add to a common knowledge pool and where a community spirit is fostered through social interactions (Bernard et. al. 2000).

Virtual Exchange Faculty and Student

There are many exchange programs over the world (Matijašević&Carić,2009). Collaborative Virtual Environments (CVEs) are computer-enabled, distributed virtual spaces or places in which people can meet and interact with others, with agents and with virtual objects (Redfern & Naughton, 2002). These environments provide another mobility options for both faculty and students.



In synchronous distance education; While a university gives a course, another university students can participate this course from their classroom or homes at the same time. It happens via video conference systems and/or smart classrooms (Figure 3).

Figure 3. Synchronous distance education

In asynchronous distance education; Instructor and students don't have to join instructional activities at same time. Instructor and development team creates learning packages, then publish. Students access them when students are available. Students actively participate to activities like in-class education (Figure 4).

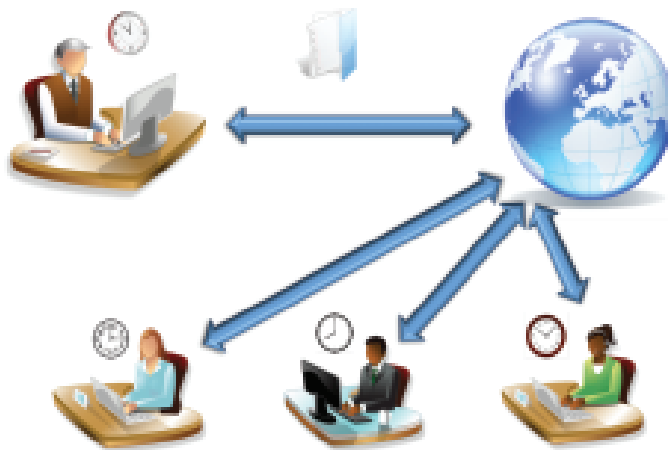


Figure 4. Asynchronous distance education

Benefits of Collaborations by E-learning

Universities can develop and offer a wide range of quality human, academic or technological resources through collaboration for a relatively low cost. For example, many universities cannot afford to offer a program or course if its enrollment numbers aren't enough. However, a low-enrollment program may still be made available to students through an arrangement with another university.

Collaboration helps universities to implement new and often progressive, ideas. The universities could share development costs through collaborating with other universities. They may share their expertise in developing multimedia educational applications. Universities in a collaboration benefit from sharing "quality-building" processes and techniques, such as admissions, course design and learner support (COL,2005).

Another contribution of collaboration is the support given to peaceful coexistence of nations by building multicultural and multilingual societies (Toprak, 2006). Moreover the most important benefits are presented in terms of student and instructor.

Student attending other university courses may have;

- Global learning experience/diversity
- International Social network, Friendship
- Practice of international collaboration

Instructor attending other university courses may have;

- Global teaching experience
- International interactions
- Professional development
- Information Exchange

E-learning at Atatürk University

Atatürk University has wide range expertise with approximately 2.000 professors is one of the biggest universities in Turkey. It has High Quality Human Resources on pedagogic and technical issues related to e-Learning. e-learning applications have Strong administrative support from Higher Education Counsel and Atatürk University. Atatürk University has advanced infrastructure with 200 Mb Uplink Band, multimedia studios and live conference studios (Smart classrooms and web based solutions).

Currently Atatürk University has two big distance education programs:

- Nursing Bachelor's degree: There are 13 500 students in distance nursing bachelor's degree distance education program. This program is for those who are actively working as a nurse.
- Theology Bachelor's degree : This program will begin in this year. This program is the second bachelor completion for those who has graduate from Theology department all colleges or vocational schools. Namely they will have a chance to have bachelor degree online.

Future Programs:

The new distance education programs will begin in the next year.

- Criminal Justice (Collaboration with national police organization)
- E-MBA and Executive E-MBA
- Computer Programming

The Structure of E-learning at Atatürk University

ATAUZEM (Atatürk University distance education center) designs, creates and manages distance education activities. All the distance education programs are offered by the ATAUZEM with the help of various academic departments. Distance education programs have two divisions: Program and Center (Figure 4). The coordinator and faculty members work at program side. There are coordinator, content design and development members, student affairs and assessment at Center. All materials include lecture notes, videos, and interactive e-learning packages. Material at the platform is presented to students on the web. Access, discussion, homework, online exams and projects are presented to students. Interaction is the priority in these activities. Final exam is implemented face to face. There are face to face activities as well.

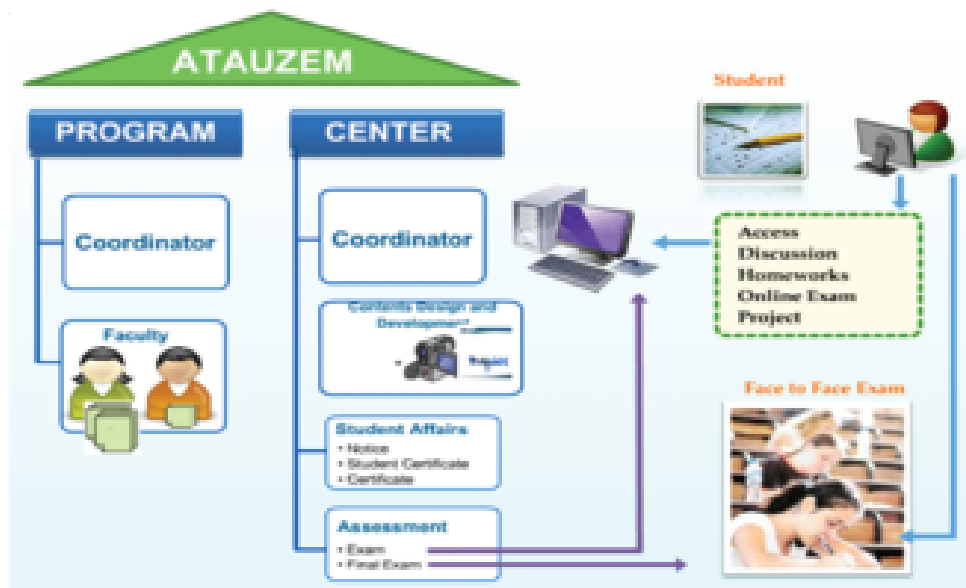


Figure 5. The Structure of E-learning at Ataturk University

Atatürk University would like to have online collaborations as

- Shared Learning objects (content) repositories,
- Shared e-course collections
- Virtual exchange faculty or Student.
- Shared Certification (joint programs)
- Know how, platform- resources sharing (LMS)-Hardware-Software

The university also would like to be hosting all kind of e-learning collaboration with strong human and technical resources. It is willing to share experiences by leading e-learning collaboration attempts

CONCLUSION

Collaboration between universities has to be a win–win situation. . In the globalization age it is inevitable to have connections with other universities. Universities must feel that their interests and purpose for entering the collaboration are well served, and should be able to see actual returns –whether through increased enrollment or improved infrastructure and services – on their investment in the partnership. Universities may have much collaboration through e-learning. For example they may share learning object (content) repositories and e-course collection, platform, sources and certification with online collaboration. Universities may also have virtual faculty or student exchange. According to Redfern & Naughton(2002), e-learning can provide the opportunity for planned and unplanned social encounters to take place, and provide tools for these encounters to enjoy enriched communication and improved synchronous work practices .Experience and evidence show that the success of collaboration depends on the commitment, effort and conviction of the implementing partners (COL, 2005).

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Prof. Dr. M. Shamsheer Ali
Vice-Chancellor, Southeast University, Bangladesh

Tripartite collaboration between University, Industry and Government

1. Introduction

Tripartite collaboration between university, industry and government is indeed the need of the day in the new millennium, especially when the new economy has been dubbed as “Knowledge Economy”. In order that such an agreement produces desirable results for each of the three players involved, it is essential to have a very clear understanding of the roles of each player.

1. (a) Role of Universities

The role of universities has been, from time immemorial, to generate new ideas and thoughts which have been, either immediately or over a period of time, used for bringing about changes in the social or political order, and for producing new products and processes. The universities, being the highest seats of learning, have to have the highest standards in terms of acquisition and dissemination of knowledge.

We have seen, in the last few decades, some phenomenal progress in science and technology in the world. But this progress sprang mostly from the scientific researches in universities which have been regarded as generators of new thoughts throughout the world and throughout all ages. How we are to bring our institutions to play that thought-provoking role is a matter that needs attention.

1. (b) Role of Government

The role of the government is to see primarily that the universities operate in a very healthy environment with a special emphasis on research (either basic or applied) which may be either curiosity based, or for meeting the needs of the society. The government has another role to play, especially in the developing countries where there are scholars, but no appreciable funds. The government can make allocations for need-based research in various sectors of life and environment. The thumb rule is to allocate 10 – 15% of the funds for basic research (which has to be of world class standard, publishable in international journals and hence contributing to the international pool of knowledge). Thus, the role of the government has to be more of a facilitator and not of a controller, for the generation of new knowledge. Needless to say, that this role, which should encourage and support the causes of science and scientists, must be reflected by an adequate allocation of funds to higher education in the national budget, which, in turn, calls for a genuine political commitment at the highest level.

1. (c) Role of Industries

The role of industries is, however, different. Usually, industries use the knowledge that universities generate. Industries must have, however, an in-house R & D component also. It is usual, especially in industrialized countries, for industries to allocate 1% of their budget for R & D purposes. In fact, there has been a two-way flow of information between universities and industry. Industries use knowledge, but also help in the generation of knowledge by referring to some of the technical problems of the industries back to the laboratories of universities and also to advanced research institutions. In the advanced countries, many a research project in universities and national laboratories is commissioned by industries. The industries do this in order to update their products and production processes and to be able to use innovative/ indigenous material existing in the country. In all cases, environmental friendliness of the products and processes should be the key issue.

A partner which is apparently found as a missing link in the agreement among universities, government and industry, is the role of research laboratories. However, if the universities and research laboratories are bracketed together for purposes of creation and dissemination of knowledge, then there will be no missing link. In fact, links between universities and research laboratories have been a common practice in many regions of the world. The interaction between Harwell and Oxford university, between Cambridge university and Cavendish laboratory, between Argon National Laboratory and the University of Illinois, between the Saha Institute of Nuclear Physics and the Calcutta University, between the Atomic Energy Centre in Dhaka and the Dhaka University, are only a few of the many cases to cite. In fact, education and research are inseparable, and hence the activities of universities and laboratories have to be viewed together. Incidentally, many of the scientific innovations which have brought the world to what it is today now, namely, the invention of the transistor, the consequent development of ICT (Information and Communication Technology) and the discovery of DNA and the consequent impact brought out by molecular biology using the recombinant DNA techniques – are results of combined efforts of universities and research organizations.

2. Areas in which collaboration of the partners in the tripartite agreement may be sought.

Now that the roles of players have been identified, it is useful to outline a few specific cases which call for collaboration of the parties under consideration for the overall improvement of life and environment.

2 (a) Quality Control, Standards

The industries, in the face of fierce competition, have to maintain the cutting-edge quality control ever conceived, both online and offline. In the case of online control, (for example, in determining the quantum of substance in a toothpaste tube) the application of nuclear techniques may often be involved. Universities and research laboratories may organize special training programs for the development of these and other techniques of quality control.

Also the various ISO standards recommended by the Standard and Testing institutions, should be strictly followed. The point that has to be kept in mind is that the export promotion, even in poor countries, can get a significant boosting only if issues of control and standard are dealt with at the highest international level of satisfaction.

2 (b) Environmental studies

Environment now forms the role of a common denominator in the manufacture of all products and processes, and in the setting up and running of all industries. The waste disposal, nuclear or non-nuclear, also forms an essential component of the environmental issues. The settlement of these issues requires the combined wisdom of both universities, laboratories and industries, who can, then, advise the government on the framing of appropriate rules and regulations on environmental issues.

Determination of air, water and soil pollution often involves the employment of analytical techniques including the use of trace-element analysis through PIXE (Proton Induced X-Ray Emission) where the sensitivity of detection may be parts in billions, and not just parts in millions. Such detections are proving to be of vital importance in agriculture where the soil can get deprived of micro-nutrients because of irrigation practices. The detection of micro-nutrients needs analysis using PIXE and analytical methods such as Atomic Absorption Spectro-Photometer. Another method, NMR (Nuclear Magnetic Resonance), is equally important in determining type and quantum of active ingredients present in certain plants that are being exploited by medicinal industries in view of the efficacies of Herbal medicine.

In developing countries, it may not be possible for governments to install all the sophisticated analytical methods as well as the electron microscope in all universities. However, industries, national laboratories and universities can make internal arrangements for these facilities to be shared even by remote academic institutions.

2 (c) Use of local material base: value additions

Value addition to local products and processes making them usable globally is assuming greater significance, especially in view of the nature of the Knowledge Economy in the present-day state of world trade and commerce. In the context of Bangladesh, an example could make this point clear. Consider the natural fibre, jute. It has a number of naughty properties, namely, it is not water resistant, not fire resistant, it shreds etc. But it has been gifted with one property, namely, that it is bio-degradable. Thus, net-bags of jute which would be cheap and absolutely environment-friendly, could be a good substitute for the non-biodegradable polythene shopping bags used in the supermarkets of the world. This is an area which calls for interactions between governments, universities and industries, not only locally, but also globally. Such bags have actually been prepared. What is needed is a concerted effort by industries to make them available globally using the market forces. Such innovative practices in the garments section, in the food industry, in the transport sector, and in the energy sector etc. are the demand of the present time; and these can become successful only if government, industries and universities work in tandem.

The above are only a few indicative areas for collaboration, there are many more in respect of in each country's natural and social context.

3. Bridging the gap between Theory and Practice

While the students pursuing subjects like Chemistry, Pharmacy etc. in the universities are studying the course materials carefully, they and their teachers should take some interest in the applications of what they have studied in real life situation. In particular, they should be encouraged to visit the chemical laboratories, Jute and textile mills, pharmaceutical industries, in order to gain a first-hand knowledge of the areas on which emphasis is laid by these production centers. In fact, at the post-graduate level, a system of internship for science students at the practical places of work would be highly desirable, and would act as a bridge between theory and applications.

4. Conclusion

From what has been discussed above, it may seem that the tripartite collaboration should hinge only on education and R & D in science. This is certainly not so. Every branch of knowledge in the Arts, Humanities and the Sciences needs to be nurtured with care and there is a scope for R & D in each of these branches. For example, management of men, machines and materials is a demand of the day, especially in the developing countries, and thus, it is no wonder, that a craze for degrees in management has been created all over the world.



The science of management is being studied in almost all universities around the world, and compared to trends in computer science and technology, the demand for such education is being felt more and more, both in the public and private sectors. Governments and industries would do well to employ people with good managerial skills, but should take care to see that such skills are utilized not merely for indenting purposes but more for manufacturing purposes which call for better communication and marketing skills. Again, the human resource development (HRD) is an area that can produce the greatest dividends from the tripartite collaborations. But care has to be taken to ensure that people are trained with an orientation for serving mankind, through their acts and deeds, rather than for serving themselves. And to this end, a comprehensive study of history, literature, culture and religion may be included in every vocational training for the complete grooming of the individuals. The study of such fine arts will enable our manpower to develop a respect for the local culture and eventually will create a sense of oneness for the human family in order to rise above all communal feelings and to respect the order of nature. As a result, a feature of such studies will be of a multi-disciplinary nature, like the interface of business with scientific methods and emerging technologies, skills in language, understanding of business ethics, promotion of understanding of eco-friendly sustainable development, understanding of the work of WTO, IMF and other international agencies, understanding of human relations, wisdom in the work of Nature etc. Obviously, this multi-disciplinary character of studies in the Arts and the Sciences can be ensured through active collaboration of universities and industries with the government in the role of a catalyst/ facilitator. The sooner the educationists, business administrators and the bureaucrats of the government realize this, the better it will be for the future generations, and for the world at large.

[The author Prof. Dr. M. Shamsheer Ali is Vice-Chancellor, Southeast University and President, Bangladesh Academy of Sciences]

Prof.Dr. Rifkat Talibov

Pro-Rector of Bashkir State University, Bashkortostan



Bashkir State University

The Bashkir State University was founded in 1957 on the basis of the Bashkir State Pedagogical Institute named after K.A.Timiryazev. The University is actually the legal successor of the Ufa Teachers' Training Institute (est. 1919) - the first higher education institution in the Republic of Bashkortostan, which in 1920 was transformed into the Institute of Public Education and later into the Pedagogical Institute. Today this major scientific, educational and cultural center of the Republic ranks among the top ten classical universities of the Russian Federation.

At various phases of its history the University employed outstanding Russian and Bashkortostani scientists and scholars: Academician of the USSR Academy of Sciences N.N. Bogolyubov: mathematicians, Corresponding Members of the USSR Academy of Sciences A.F.Leontyev and A.M.Ilyin, Professors L.I.Rubinshtein, A.B.Shabat, S.I.Pinchuk; linguistics and literature specialists, Professors D.G.Kiyekbayev, L.G.Barag, V.I.Baranov, A.N.Kireyev, I.P.Raspopov, N.F.Cheremisina, Assistant Professor Z.Sh.Shakirov; historians, Corresponding Member of the Russian Academy of Sciences R.G.Kuzeyev, Professors Sh.Kh.Chanbarisov and I.S.Kisselgof; biochemist, Academician of the All-Union Agriculture Academy named after Lenin V.G.Konarev; botanists, Professors Yu.Z.Kulaghin and G.V.Zabluda; physiologist, Professor A.S.Dmitriyev; physicist, Professor M.M.Farztdinov; chemists Professors Ye.F.Zhuravlyov and Yu.V.Svetkin; geologist, Professor D.G.Ozhiganov and others.

The formation of the school of Turkic studies was greatly affected by the works of the Corresponding Member of the USSR Academy of Sciences, Academician of the USSR Academy of Pedagogical Sciences N. K. Dmitriyev - author of the first academic grammar of the Bashkir language. Major influence upon the development of Bashkortostani learning and education was exerted by great scholars, scientists and cultural workers of the Ukraine, who were active in Ufa during WWII: M.F.Rylski, P.G.Tychina, A.Ye.Korneichuk, L.A.Bulakhovski. Great has been their contribution into the creation of schools along topical directions of humanities and sciences, this contribution enabling to solve the task of training national scientific and pedagogical personnel and ensure high standards of instruction and research.

The University currently employs about 1580 instructors, including 226 Doctors and 726 Candidates of Science. 42 Doctors have been elected Full Members and Corresponding Members of various academies.

More than 27,411 students are trained in 86 trades at the full-time department

The University incorporates 15 departments in Ufa and 3 branches located in Sibai, Sterlitamak and Neftekamsk. Instruction is effected by 73 chairs.

Department of Mathematics
Department of Chemistry
Department of Geography
Department of Bashkir Philology and Journalism
Department of Romance and Germanic Philology
Department of Economics

Department of Physics
Department of Biology
Department of Philology
Institute of Law
Department of History
Department of Engineering

The University provides postgraduate training in 57 specialties and doctorate training in 23, there being 13 academic boards for theses defense.

Science is represented by the R&D center, three problem and multi-branch laboratories, the R&D Institute for Sociology, the Bashkir Patent Center, the «Zaryad» experiment and design bureau focusing on building computer systems, measuring instruments and machine-tools for the engineering industry.

The University instructors annually issue 110 titles of monographs, textbooks and teaching aids.

The Bashkir University participates in international integration activities, cooperating on a contractual basis with universities in the USA, Turkey, Germany, France, Italy, Egypt, Hungary, Japan and China in the sphere of science and higher education.

The Bashkir University is a vibrantly growing institution. The transition is currently accomplished to a multi-level system of higher professional training. The high standard of theoretical and methodological background of the professor and instructor staff supported by academic traditions facilitates training highly-qualified specialists.

The University is justly proud of its graduates. More than 60,000 specialists have been trained here since 1957 thus contributing significantly to Bashkortostan's intellectual potential. Widely known are the names of Heroes of Socialist Labour: People's Poet of the Republic of Bashkortostan, Lenin Prize Winner Mustai Karim, People's Teacher of the USSR Kh.Kh.Iskandarova, Merited Teacher of the Republic of Bashkortostan L.Sh.Kamalova, Hero of the Soviet Union Zubai Utyagulov. More than a thousand University graduates have been awarded honorary titles of the Russian Federation and those of the Republic of Bashkortostan, and 67 of them are members of the Writers' Union of Russia.

Prof. Dr. Mammad Rzayev
Nakhchivan State University
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Freedom and Value Problems in the Philosophy of Azerbaijan Education and Bologna Process

Despite the role, the activity, the system of values, the culture, the level of consciousness and the subjective qualities of young generation in the society possess common features for all periods, each occupies specific character in definite historic phases. Herein it becomes clear that in modern period exploring the qualities of the personality from social-philosophical standpoint has very significant scientific and practical importance.

It should be previously mentioned that the philosophically studying of the personality is not a new issue in theoretical thinking, contrary it has adequate rich traditions. However, in open society the principal novelties characterizing the feature of the transition period, the lofty dynamism, the globalism that is very alarming on an international scale and standardized inclinations make it inevitable to approach to a new way in researching the problem of personality.

In present-day condition the economic, scientific-technical and social developmental velocity of the society have made the philosophy of education into a topical issue. The upbringing, education and growth of human have been perceived as a wide educational notion for centuries long in the unity of educational process. For this reason, the moral-spiritual quality values of the upgrowing and forming human were searched in the educational level. The education idea, the aim and meaning of a human life were associated with educational impact attempts, the harmonious and comprehensive development of young generation in any country, region, society were considered as a major goal. It is natural that this philosophy, discerned from the Middle Ages till the XX century, was compatible to the social-economic and scientific-technical level.

At the end of the XX century and at the beginning of the XXI century the speedy development and modernization in the international relations, scientific-technical inventions, political-social views, as well as in the education of Azerbaijan have set up a novel dynamic-developmental level of society. This new level has broken the local frames and regional boundaries forming the integration into the progressive developmental specimen in all activity fields, out of which in education, the standards accepted by united countries, and the concept of free human who can work in any foreign country after having studied in a higher institution of a developed country. From this point of view, nowadays the endeavors regarding the Bologna process arise a special attention due to its topicality. The 45 countries, which have already joined to this process, support just one joint target of the education.

Equality of fundamental-educational activity principles, studying liberty of human, free thinking and activity opportunities, right to education, work skills and freedom to be able to apply them in any country he wants comprise the philosophical base of European higher education zone called Bologna process.



The matter of philosophy encompasses “Human – World” correlations. The substantial disposition of human activity is reflected in its liberty. A human determines himself, his future, his targets and work hard for them. Here knowledge and desire, feeling and mind take part in as two aspects. If a human has the liberty to selection, education and activity, these aspects become functioning and yield real results. Precisely the Bologna process puts forward this kind of liberties and brings a maturing specialist to the world arena deriving benefits from the most modern education, form, and method technologies

In our opinion, in education not only freedom, but also the issue of sensible and thoughtful liberty is included to the philosophy of Bologna process. According to the philosophers, the molding of “a clever, thoughtful individual” is a process of formation of the new culture on the basis of making effort to dominate him and the whole world by gaining knowledge.

The process of Bologna implements the assimilation of knowledge by means of the same programs about the world, life, human, nature of tens of countries citizens, the activity of learning freely and self-confirmation with creative jobs and offers opportunity to realize ability recourses of a “clever, thoughtful individual” in this process. As a result, the process of learners’ being socialized display itself more vividly under the circumstance of activity unity and collaboration of trainers and learners. The desire to have intercourse and contact reinforces the formation of requirements volitionally. The results of getting joint education don’t only provide opportunities for specialized personnel to work in a country, in a continent, but also make a path to a joint participation in the solution of global problems caused by modern technological civilization.

From this view point, the following principles, which identify the essence of the Bologna process, can be specified:

- The meeting of the contents of education, exercises, credits and evaluation the joint educational standards determined by unity countries by acquiring knowledge and specialty;
- The recognition of diplomas of those who study abroad in their home country (any educational papers given to them);
- The possibility of usage of joint educational standards among the same higher institutions through European Credit Transfer system.
- The strengthening of integration into the European education area;
- The participation of a student, who is going to study abroad, at trainings and lectures together with the students of the same university;
- Freedom in education
- The utilization of “a joint language” (of letters) in the determination of students’ class load and in the typing of grades.

Taking all these into consideration the determining of value criterion of the Bologna process plays a significant role.

We think that the research of student mobility through European Credit Transfer system and as well as the term to recognize the results of education acquired successfully abroad in each party’s own country are philosophical fundamentals which characterize the freedom of education. The analysis of Bologna process shows that Europe is not only becoming to a highly economically developed place, but also to a vocational-professional education area conforming to the joint educational standards. The establishing of intellectual, cultural, social and technological base of the European-wide zone will exert influence on Azerbaijan to hold a specific place in the future development of comprehending global world and unity of efforts and actions.

CONCLUSION REMARKS



Final Discussion and Evaluation (Panel)

Prof.Dr. Salih HOŞOĞLU

President of Ishik University, Iraq

Prof.Dr. Md. Abdul AZIZ

Vice-Chancellor University of Information Technology and Sciences, Bangladesh

Prof.Dr. Cafer ÖZKUL

Rector, University of Rouen, France

Prof.Dr. Pirzada Qasim Raza SIDDIQUI

Vice-Chancellor, University of Karachi, Pakistan

Prof.Dr. Kemalettin ÖZDEMİR

Rector of International Burch University, Bosnia Herzegovina

Prof.Dr. Hameed M. AKLAN

Rector of University of Science&Technology, Yemen

Prof.Dr. Sebahattin TÜZEMEN

Vice-President of Atatürk University



Prof. Dr. Sebahattin TÜZEMEN
Vice-President of Atatürk University

**Conclusion Remarks of the
 First Eurasian Silk Road
 Universities Convention
 May 30, 2010,
 Atatürk University, Erzurum,
 TURKEY**

1. The convention was a success because of the following components :
 - a. Large participation and representatives,
 - b. Excellent opportunity for interaction through social programs,
 - c. Very friendly and helpful atmosphere for which the president of Atatürk University and his associates, down to all the volunteers and students must be acknowledged.
- 2- Presentations were mainly focused on
 - a. Introduction and description of respective institutions by their representatives,
 - b. Providing data regarding the higher education, to compare the existing trends, indicating some of the ways to achieve the newer approaches,
 - c. Providing ideas and reflections in the form of proposals for continuing effort for higher education by public and private sector institutions.

These three provided a good mixture of stimulation.
- 3- The signing of Memorandum of Understanding among Atatürk University and participating institutions is a concrete starting point for future collaboration.
- 4- All the participants have positive feelings by the impressive arrangements for boarding, lodging, and site of the convention being in an excellent manner. This was the result of hard work and dedication by the organizing committee.
- 5- It was the common feeling that after the successful organization of the first convention, the whole groups of participants need permanent identity for the future based on knowledge sharing strategic partnership.
- 6- It is proposed that a head office for permanent organization under the title of Eurasian Silk Road Universities Consortium (ESRUC) be at Atatürk University, Erzurum, Turkey. The Consortium will be working in the following areas.
 - a. It is proposed that all participating institutions in the first ESRUC will be the founding members of the consortium and membership will remain open for new entrance.
 - b. Form an Information Technology (IT) based educational research network.
 - c. We will declare that each participating institution will be considered as "sister institutions".
 - d. There should be a joint fund to be created.
 - e. The consortium will have focus groups for interaction. These could be;
 - i. Policy Dialog,
 - ii. Joint research, development and innovation,
 - iii. Academic Collaboration,
 - f. Each member institution will have a sub office.
 - g. ESRUC may have an executive board.
7. The next convention should be held at Atatürk University again to ensure the consortium to be strengthened through focusing on institutionalization and visibility in order to move on to future conventions at other member universities of different countries on the Silk Road.



The community of Ataturk University was honored to be the host of the 1st Eurasian Silk Road Universities convention (ESRUC), which brought together international and national universities.

We look forward to sharing this experience once again and warmly forward you an invitation to the 2nd Eurasian Silk Road Universities Convention due to take place at Ataturk University, Erzurum, Turkey, in 2011.

*Prof. Dr. Hikmet KOC AK
President of Ataturk University*

PHOTO ALBUM



*Hayati YAZICI, Minister of State
(Opening Speech)*



*Prof. Dr. Recep AKDAĞ, Minister of Health
(Opening Speech)*



*Prof. Dr. Muhittin ŞİMŞEK, Executive Board Member, Council of Higher Education
(Opening Speech)*



*Prof. Dr. Hikmet KOÇAK, President of Atatürk University
(Opening Speech)*



First Plenary Session



A View from Thematic Garden 2011



A View from Thematic Garden 2011



An Evening Meal



A Visit to the Old Erzurum Houses



At the Peak of Palandöken (Ejder)



Live Interview by National Turkish Television (TRT)



Live Interview by National Turkish Television (TRT)



Gala Meal



Office of President



Opening of the 1st International Erzurum Paint Semposium



A View from a Meal



First Plenary Session



Presentment of Plaquettes



Presentment of Plaquettes



Presentment of Plaquettes



Presentment of Plaquettes



Presentment of Plaquettes



Second Plenary Session



Presentment of Plaquettes



Presentment of Plaquettes



Presentment of Plaquettes



Third Plenary Session



A Lunck Break



Fourth Plenary Session



Presentment of Plaquettes



Presentment of Plaquettes



Presentment of Plaquettes



May 30, 2010. First Session



Presentment of Plaquettes



Presentment of Plaquettes



Presentment of Plaquettes



Rüstem Paşa Bazaar (Taşhan)



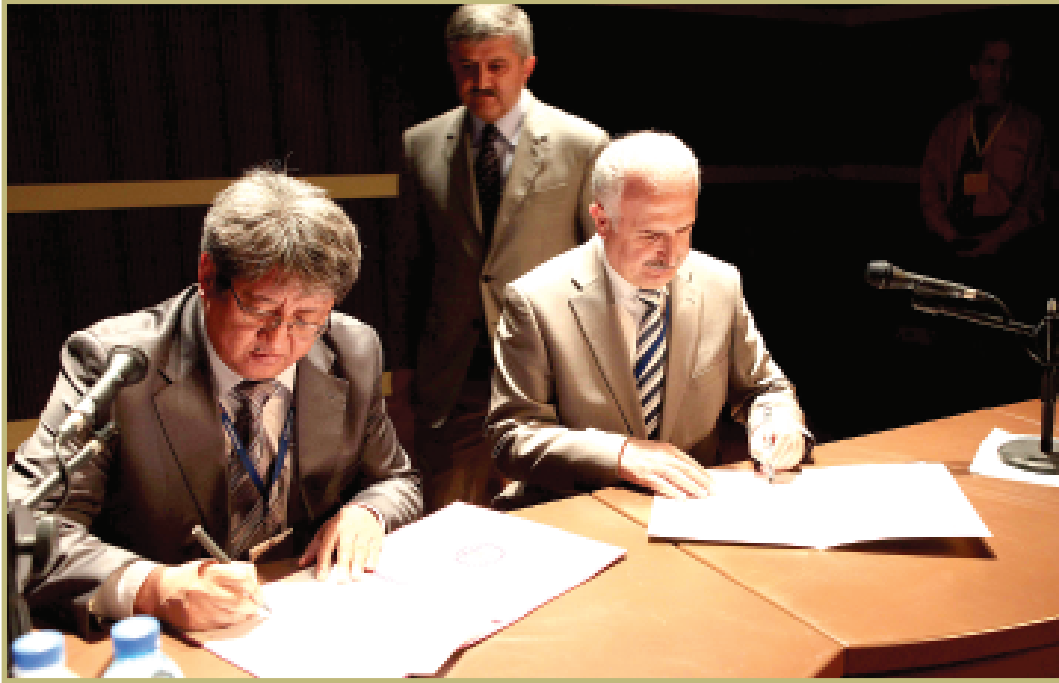
Rüstem Paşa Bazaar (Taşhan)



Presentment of Plaquettes



Signing of Memorandum of Understanding



Signing of Memorandum of Understanding



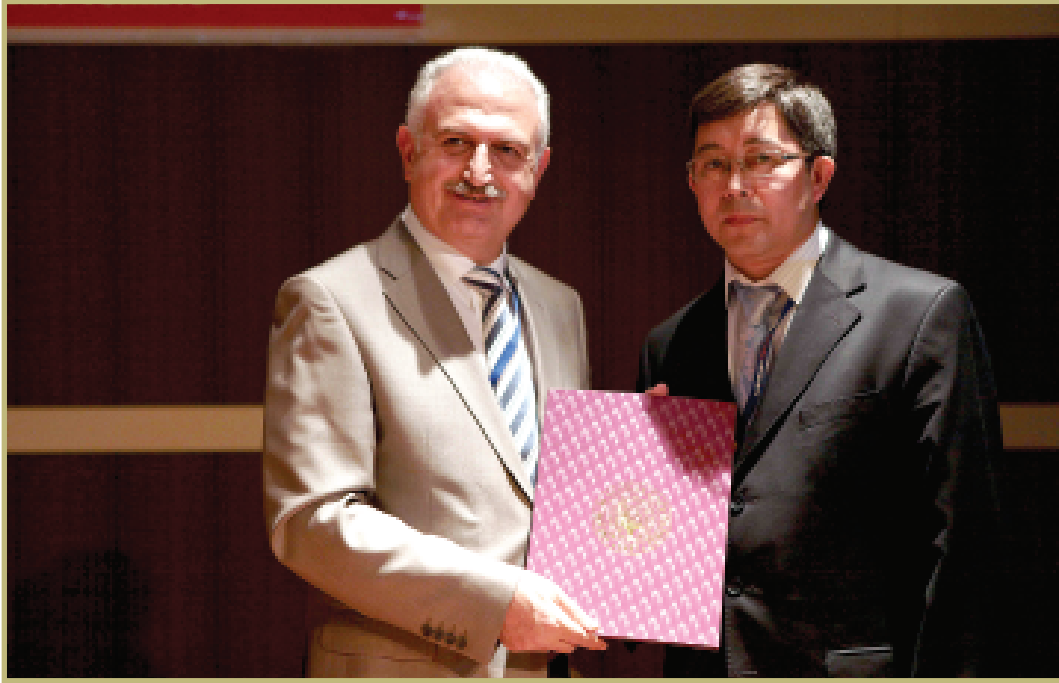
Signing of Memorandum of Understanding



Signing of Memorandum of Understanding



Signing of Memorandum of Understanding



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Signing of Memorandum of Understanding



May 30, 2010, Second Session



Presentment of Plaquettes



A Lunck Break



Presentment of Plaquettes



May 30, 2010 Third Session



Presentment of Plaquettes



Presentment of Plaquettes



Visit to Seven Lakes, Tortum



Visit to Tortum Waterfall

LIST OF PARTICIPANTS

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