

## Internationalization and ex-Soviet Uzbek higher education scenario: A global perspective.

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**Abstract:** From social to cultural set ups, from economic to politics stabilities, and from scientific to technological advancements, Higher education has the omnipotent role. Higher education has solitary value in the contemporaneous knowledge based society which contributes directly and indirectly to the wealth (intellectual and economic) of a nation. In contemporary higher education research, the terms like internationalization and globalisation are dominant themes and frequently used. The advent of globalization and internationalization has brought about a sea-change in the global higher education sector and competitive global education market. To have a good understanding of what internationalization is and how is related to higher education, vis-a-vis the response to globalization. An accurate understanding of the term requires an interdisciplinary conceptualisation to develop a notion of internationalization in such a careful, precise and consist way. The present study is an attempt to highlight and investigate how Uzbek government is designing higher education scenario and how formulating and implementing international policies to meet the demands of the global market economy in the post-soviet era. Internationalization and globalization are examined in the context of contemporary Uzbek higher education scenario; the study starts with the conceptual framework of internationalization, its different rationales supported by famous scholars followed by discussion and conclusion.

**Key Words:** Internationalization, HEIs, Uzbekistan, Globalization.

### ***Internationalization of Higher Education: Conceptual Framework.***

‘Internationalization of higher education’ is not the new phenomenon, is an extravagantly well-documented area of practice. Greater emphasis has been placed on the internationalization of Higher Education (IHE) in our global and knowledge-based society. A vast literature and theories have grown as scholars debate the conceptualization, characteristics, and challenges of

internationalization, and as they seek to unravel its rationales, realities and implications for universities and countries in various world regions.<sup>1</sup> The internationalization of Higher Education is often seen as a possible response to globalization<sup>2</sup> i-e a way to make higher education institutions more efficient in response to the globalizations of societies, cultures, economics, and labour markets.<sup>3</sup> There are different interpretations of what it (Internationalization) means, to some; it is primarily focused on international student recruitment and to others, on establishing an international presence overseas.

UNESCO's position paper interprets internationalization "as one of the ways in which higher education is responding to the opportunities and challenges of globalization. Internationalization includes a broad range of elements such as curriculum, teaching/learning, research, institutional agreements, students /faculty mobility, development cooperation and much more."<sup>4</sup> Internationalization has been defined as the development of business operation process including, strategy, structure and resources within the international environment.<sup>5</sup> Many are however developing or revisiting with a more holistic approach. Knight (1993) describes internationalization of higher education as the process of integrating an international/intercultural global dimension into the teaching, research and service functions of the institution'<sup>6</sup>. More broad definition of the internationalization of higher education is given in the U. Teichler's monographs where this term has been employed in seven themes:

- i. the physical mobility of academic staff and students

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<sup>1</sup> For a succinct overview of the trends in research on internationalization in higher education see Kehm and Teichler (2007). They identify the seven dominant topics that have dominated research, namely, mobility of students and academic staff; mutual influences of higher education systems on each other; internationalization of the substance of teaching, learning, and research; institutional strategies of internationalization; knowledge transfer; cooperation and competition; national and supranational policies as regarding the international dimension of higher education. New trends include the mobility of programs, the role of supranational organizations, the entry of international consortia and networks as new actors, and the geographical canvas now encompasses all world regions.

<sup>2</sup> Globalization is the process of international integration arising from the interchange of world views, products, ideas, and other aspects of culture. In particular, advances in transportation and telecommunications infrastructure, including the rise of the Internet, are major factors in globalization and precipitate further interdependence of economic and cultural activities (Al-Rodhan, Nayef R.F. and Gérard Stoudmann, "Definitions of Globalization: A Comprehensive Overview and a Proposed Definition.", 19 June, 2006).

<sup>3</sup> Karlvermark Torsten, V. D. (1997). *National Policies for Internationalization of the Higher Education*. Europe: National Agency for Higher Education.

<sup>4</sup> UNESCO. (2003). Higher Education in Globalised Society. <http://unesdoc.unesco.org/images/0013/001362/136247e.pdf>.

<sup>5</sup> Calof, J. A. (1995). Adopting to Foreign Markets: Explaining Internationalization. *International Business Review*, 4 (2), 115-131.

<sup>6</sup> J.Knight. (2004). internationalization remodeled: Definitions, Approaches, and Rationales. *Journal of Studies in International education*, 8 (1), 5-31.

- ii. recognition of study achievements across borders
- iii. different modes of transfer of knowledge across borders
- iv. internationality in the substance of higher education
- v. international orientation and attitude
- vi. the similarity of heterogeneity of national systems of higher education
- vii. Internationalization as an argument for almost any higher education reform.<sup>7</sup>

As such, it is an essential set of values which seeks to:

- i. Internationalize the student experience (both on and off campus)
- ii. Enhance the employability of students through international experiences, such as participation in mobility programs.
- iii. Develop the international dimension of the curriculum.
- iv. Increase global competitiveness through international partnerships, networks, collaboration.<sup>8</sup>

The process of internationalization of higher education has vitalized the economic survival of the countries and has led to the increase opportunities for students to enhance their potential at international standards.

One important contribution to the theory, the Uppsala Internationalization Model, could be traced to works published by Carlson (1975), Johanson and Wiedersheim-Paul (1975), and Johanson and Vahlne (2006). According to the Uppsala Internationalization Model (Carlson, 1975), the organization gradually increases its international involvement and lack of knowledge prevents it from entering culturally distant markets. Firms follow a sequence from low to high commitment modes of operation and enter new markets with successively greater psychic distance. The Uppsala model was strongly influenced by the work of Penrose (1959) about firm's growth.

The network approach on the theory of internationalization emphasizes the role of relationships, which are gradually formed in a particular market. According to the network perspective<sup>9</sup>, the internationalization of a firm means that it develops business relationships in foreign networks. This can be achieved through the: a) establishment of relationships in-country networks through international extension; b) development of relationships in existing networks by penetration; and c) connection of existing networks in different countries.

Gabrielsson and Kirpalani (2004) argue that, in order to internationalize, the organizations must utilize large channels provided by networks and the internet. So far, the organizations internationalize in many different ways. These changes require flexibility, adaptation, and faster responses to new contingencies. But what are the effects of internationalization on education? And how can the internationalization theories help to understand the patterns of internationalization of the education system?

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<sup>7</sup> Teichler, U. "Internationalization Higher Education: Debates and Changes in Europe." *Higher Education* 48.5 (2010): 26.

<sup>8</sup> Sheppard, M. & Bellis, P. The Bologna Process: Supporting the internationalization of higher education in the UK. Retrieved January 14, 2013 from <http://eunis.dk/papers/p37.pdf>

<sup>9</sup> Johanson, J. and L. G. Mattsson. 1988. Internationalisation in industrial systems: A network approach. In N. Hood and J. E. Vahlne, editors, *Strategies in global competition*. New York: Croom Helm (287-314). <http://jrdsjournal.wixsite.com/humanities-cultural>

The important rationales for the internationalization of higher education were offered by Knight (1999) in terms of political, economic, academic and social aspects. These rationales help in reconstructing the ambitions and motives of nations and institutions as to why they opt for the internationalization of higher education.

**Political Rationale:** The political rationale relates to issues concerning the country's position and role as a nation in the world, e.g. security, stability and peace, ideology influence etc. Historically, international education was seen as a beneficial tool for foreign policy particularly in respect to national security and speech among nations. While this is still a consideration today, it does not have the importance it once did.<sup>10</sup> Education especially higher education is often considered as a form of diplomatic investment for future political and economic relations. For example, scholarships for foreign students who are seen as promising future leaders are deemed to be the effective way of developing an understanding of and perhaps the affinity for the sponsoring country. This affinity may prove to be beneficial in future years in terms of diplomatic or business relations.<sup>11</sup>

Interestingly, from a political point of view this may be considered as the way for framing foreign policy and diplomatic strategies.

The academic rationale is primarily associated with improving the academic standard of the domestic higher education by putting them into a state of competition with the international higher education standards. For centuries there has been international mobility of students and scholars and an international dimension to research. Today's new trends in internationalization reflect the impact of the market orientation in HE and place the stress on improved quality and accountability. In academic terms, criteria for teaching and research involve standardization and uniformity. Although it may comprise issues of national identity, achieving international academic criteria becomes a mission for internationalizing the HE sector. It is assumed that 'by enhancing the international dimension of teaching, research and service there is value added to the quality of our higher education systems

The political rationale assumes vital importance. The intercultural exchange and understanding is a major factor in acquiring international competencies. Moreover, it is also important for preserving the national cultural identity.

The economic rationale is essentially related to the quest for building the skilled workforce with international competencies. Moreover, the economic rationale is also important for the simple reason that it helps in increasing commercial activities in education and an important source of export and import in education services revenues of the higher education institutions using export of educational services. In this global higher education market billions of pounds, Euros and Dollars are generated from tuition fees and living expenses of international students.<sup>12</sup> Higher education institutions in developed countries are making the considerable profit by charging differential fees to international students. Australia, Canada, The United States, the United Kingdom, New Zealand, the Russian Federation, Belgium, Turkey. Denmark, Poland,

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<sup>10</sup> Knight, J, (1997) Internationalization of Higher Education: a conceptual framework, in L.Knight and H.De Wit (Eds) Internationalization of Higher Education in Asian Pacific Countries.,pp.5-9. Amsterdam: European Association for International Education.

<sup>11</sup> ibid. p.9

<sup>12</sup> Altbach (2008), The Global market bubble. Retrieved from; [www.timeshighereducation.co.uk](http://www.timeshighereducation.co.uk).

<http://jrdsjournal.wixsite.com/humanities-cultural>

Austria, and the Netherlands belong to this category.<sup>13</sup> For, the example in the UK, 37 percent of total resources of the universities came from the international students in 2010.

The HEIs can now utilize specific and diversified international exchanges and cooperation as carriers to absorb philosophy, educational models, cultural traditions, values and behavioural patterns of higher education institutions throughout the world, so as to upgrade the quality of talent education and press forward with the modernization process of national higher education<sup>14</sup> Internationalization, in turn, is given credit as the crucial method of shaping a strong national educational structure with enormous potential for emerging globally<sup>15</sup>.

Internationalization of higher education (IHE) adds the competitive edge to the quality of education, generates diplomatic good will and harmony across borders, and opens up new channels for economic collaborations. The internationalization of higher education is a dynamic process, continuously evolving in the global context in which it occurs. As this backdrop mutates, so do the objectives, implications, and strategies of internationalization.

**Internationalization of Higher Education scenario in the Republic of Uzbekistan:**

Independence had opened new horizons for the republican higher education system. As one of the newly formed and developing nations, Uzbekistan has been demonstrating fair attempts to move from the peripheries of global higher education towards an international network of universities through the student and staff mobility and by hosting foreign university branches. The internationalization process was mainly induced and oriented to the government priorities, and lead by the government and institutions, in order to help the country's development. The growing pervasiveness of the phenomenon of internationalization of higher education in the global arena is becoming more dominant. With the formulation of National Programme for Personal Training (NPPT) in 1997, a new phase of excellence was pioneered and the subject "internationalization of the higher education" in the Republic of Uzbekistan got its legitimate bases. Over and above the structural and transformational reforms in Higher education scenario in the ex-Soviet Uzbekistan, Internationalization of (higher education) and international cooperation is believed to be one of the fastest and most dynamic developing areas of higher education the Republic. Internationalization, in turn, is given credit as the crucial method of shaping a strong national educational structure with enormous potential for emerging globally.<sup>16</sup> The mechanism for internationalization of higher education is in the form of<sup>17</sup>;

- i. IBCs,
- ii. academic collaboration projects involving foreign lecturers in teaching at Uzbek universities,
- iii. joint research work with foreign universities,

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<sup>13</sup> OECD (2004), Internationalization and trade in higher education: Opportunities and challenges. Paris; OECD Publishing.

<sup>14</sup> Altbach, P.G.; Knight, J. „Internationalization of higher Education: Motivations and Realities“. In: *Journal of Studies in International Education*, 11(3-4), 290-305, 2007.

<sup>15</sup> De Prado Yepes, C. (2006). World regionalization of higher education: Policy proposals for international organizations. *Higher Education Policy*, 19(1), 111-128.

<sup>16</sup> Ibid.

<sup>17</sup> Ministry of Higher and Secondary Special Education (MHSSE) of the Republic of Uzbekistan. 2014. <http://www.gov.uz/en/authorities/ministries/130>



- iv. Attracting foreign investment.
- v. support for incoming and outgoing student mobility, and
- vi. International conferences on current issues like world economics, business trends, science and technological innovations, as well as resources and energy saving.<sup>18</sup>



Figure 1: Global Flow of Tertiary-Level Students from Uzbekistan. (2014).

Retrieved from <http://www.uis.unesco.org/Education/Pages/international-student-flow-viz.aspx>.

In 1997, late president Islam Karimov founded "Umid" a program providing support to talented youth and provides an opportunity to receive an undergraduate and graduate degree overseas. Between 1998 and 2002, as many as 927 students studies in prestigious universities of developed countries like the United States, the United Kingdom, Germany, France, Italy and Japan. Another program "Ustoz" was established to provide continuous training for teachers to advance their skills and knowledge. 935 teachers and scholars have benefited from in-service training in 29

<sup>18</sup> Sia. E.K. (2014). Transnational higher education in Uzbekistan, Perspectives: Policy and Practice in Higher Education, 18:4, P.139. DOI: 10.1080/13603108.2014.979263  
<http://dx.doi.org/10.1080/13603108.2014.979263>

different areas and 752 received grants to participate in international workshops and conferences<sup>19</sup>

In 2003 these two Funds were merged into one “*Ist’edod*” Fund. The goal of that fund is to support and increase the intellectual and scientific potential of the country, develop pedagogy and economy, provide grants to young teachers/scholars, etc.

Table 3: Number of international students studying in Uzbekistan.

Academic year	Number of Students
1990-1991	3955
1991-1992	3771
1992-1993	2657
1993-1994	1351
1994-1995	1313
1995-1996	695
1996-1997	56
2001-2002	135
2002-2003	135
2003-2004	145
2004-2005	145
2005-2006	153

Source: Data by MHSVE.

### Discussion

Due to the process of internationalization, higher education was no more viewed in the narrow strict sense rather in global perspective. Institutions of higher learning become prepared to attend the demands of socio-political and economic challenges induced by globalization. Once HEIs got reviewed and updated, they open opportunities for students and staff to count on professional and academic competencies, what would also enable them to interact in an increasingly multicultural and international society.

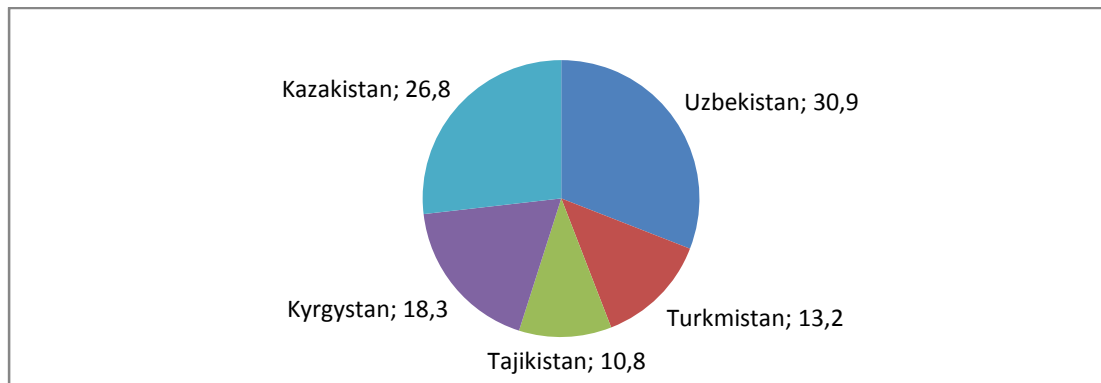
In spite of deep-rooted Russian influence, the higher education reforms have increasingly diverted such influences due to Uzbek government started facilitating meaningful opportunities for Uzbek higher education institutions to collaborate with European universities through knowledge exchange and mobility programs such as Erasmus Mundus (European Action Scheme for the Mobility of University Students -European Action Plan on Mobility of University Students) and Tempus and with the creation of many different programs, for instance: programs to increase the study of foreign languages, joint research programs (inter-institutional and/or international), double certificate programs with international universities, and mobility programs for students, professors and researches and IBCs in the Republic of Uzbekistan.

<sup>19</sup> Jose Joaquin Brunner and Anthony Tillett (2014) “higher education in central Asia : the Challenges of Modernization” p.181

<http://jrdsjournal.wixsite.com/humanities-cultural>

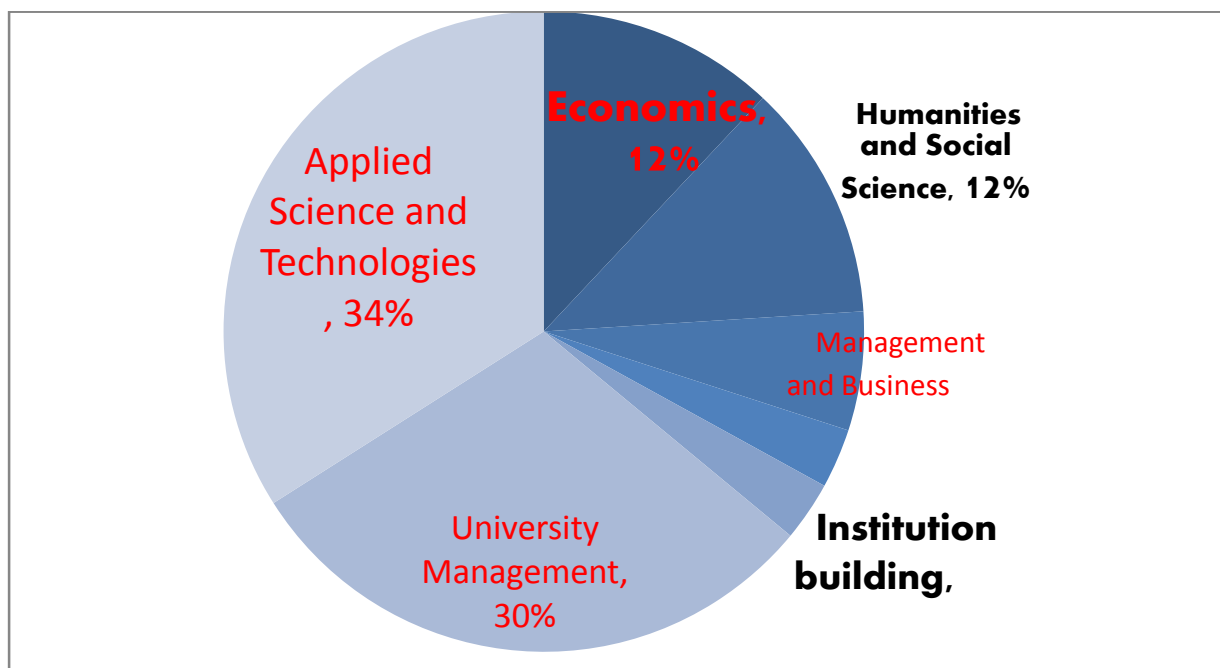
The internationalization process gained significant dimensions when more joint programs from international agencies started to operate in Uzbekistan. Uzbekistan joined the Tempus program in 1994 when six preparatory projects took off in Samarkand and Tashkent. Since then the programme activities have spread to cover the whole country. Since the start of the programme, the European Commission has allocated a total of 12.8 million Euros to Tempus in Uzbekistan, including 1.7m Euro for 2003<sup>20</sup>.

*Breakdown of the total budget committed by country (1999-2012)*



*Source: official Tempus in Uzbekistan.*

Subject areas covered by Tempus in Uzbekistan 1994-2004.



In the period from 1995 to 2004 about 40 million Euros was invested in the Tempus program to Central Asia: 9.9 million Euros - Kazakhstan, 6.1 million Euros - Kyrgyzstan, 2 million Euros -

<sup>20</sup> <http://www.osce.org/secretariat/33169?download=true>. (Accessed 14/10/2016 )  
<http://jrsdjournal.wixsite.com/humanities-cultural>



Tajikistan, 4.5 million Euros - Turkmenistan and 15.4 million Euros - Uzbekistan.<sup>21</sup> According to the Tacis (Technical Assistance to the Commonwealth Independent States) Action Programme, 2.6 million Euros was allocated for 2004. During the period of programme implementation, 29 out of 75 Higher Education Institution (HEI) have participated in the programme and 50 projects have been financed in the following co-operation areas: university management, applied sciences and technologies, economics, humanities and social sciences, management and business, education and teacher training, institution building, agriculture and food sciences, regional cooperation, medical sciences etc.

In order to fulfill the desire goals of internationalization of HE, Tempus worked as the milestone in this direction the project-UZDOC (enhancing quality of doctoral education at higher education Institutions in Uzbekistan) was launched. This project is collaboratively conducted by Ministry of Higher and Secondary Specialized Education (MHSSE) and following five higher academic institutions:

- i. Tashkent Financial Institute
- ii. Uzbekistan State Institute of Culture and Arts
- iii. Karakalpak State University
- iv. Karshi State University
- v. Samarkand University of Economics and Services

In line Uzbek counterparts, following five leading European Universities are in a close partnership in the joint project;

- i. Zagreb University (Croatia)
- ii. Sapienza University of Rome (Italy)
- iii. University of Granada (Spain)
- iv. Athens University of Economics and Business (Greece)
- v. Comenius University in Bratislava (Slovakia)

Currently, there are 19 on-going projects of Tempus of which 11 are multi-country projects and 8 are national projects. 43 higher education institutions of Uzbekistan are involved in Tempus projects. The programme covers including 17 HEIs from the capital city (Tashkent) and 26 HEIs from regions like Samarqand, Bukhara, Khozam, Kashkardya, Navoi, Andijan, Fergana, Jizzakh, Namangan, Termez and Nukus. In 11 projects e.g. QAPD, TERSID, GE-Uz, TUCAHEA, QUEECA(Quality of Engineering Education in Central Asia), MACH, HIGHVEC, UNIFORM, SAMUZ, UZDUC, Uz-Health, the ministry of Higher and Secondary Specialized Education(MHSSE) is involved.<sup>22</sup>

Tempus projects have also included upgrading of HEI facilities and staff training.

Projects of tempus in Uzbekistan 145171 Tempus-1-2008-1-ESMHES PERSEUS project, 158918-TEMPUS-12009-1 At-TEMPUS-JPCR CANDI E-Learning project, 511172-TEMPUS-1-2010-DE-TEMPUS-JPCR CIBELES project.

<sup>21</sup> Olga Nessipbayeva and Dr. Tenlik Dalayev. ( 2013 ) Developmental Perspectives on Higher Education in the Post-Soviet Countries (for the Cases of Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan

and Turkmenistan) Social and Behavioral Sciences 89 391 – 396

<sup>22</sup> TEMPUS REGIONAL CONFERENCE “HIGHER EDUCATION IN CENTRAL ASIA: ONGOING REFORMS AND FUTURE PERSPECTIVES” TASHKENT, 22-23 NOVEMBER 2004.

The Bologna process implemented at the universities in the European Union (EU) has had a remarkable impact on the reconstruction and re-development of the higher education system of Uzbekistan. One of the most visible outcomes of this cooperation is the shift towards a two-tier post-secondary system comprised of four-year bachelor's education and two-year master's education during the second phase (2001-2005) of the NPPT.<sup>23</sup> Intensive cooperation between the EU and Uzbekistan began in 2007, when the European Education Initiative was launched, as part of the EU-Central Asia Strategy.<sup>24</sup> Since then, international cooperation among HEIs in the Republic has been strong and there are a number of bilateral agreements with foreign universities from 45 countries. Through Tempus and Erasmus Mundus External Cooperation Programmes, Uzbek universities have been collaborating with many universities in the EU, to foster greater exchange of academic experiences. Working relationships have also been established with international organizations, such as the Japan International Cooperation Agency (JICA), German Academic Exchange Programme (DAAD), the British Council, Korean International Cooperation Agency (KOICA), and UNESCO, in order to foster more fruitful international cooperation.<sup>25</sup>

The University of East Anglia had its three year collaboration with the Uzbek State World Language University and Andijan state university to train thousands of language teachers before concluding in 2013.<sup>26</sup> The University of Bath assisted with the development of business studies at Tashkent state University of Economics for three years from 2010. Centre for Development Studies of Cambridge University and Tashkent State Institute of Oriental Studies completed project on history in 2014. The London Metropolitan University has academic exchange programmes with some Uzbek institutes including University of World Economy and Diplomacy, in training Uzbek human rights activists. The London College of Fashion (LCF), part of the University of the Art London, entered into the partnership with the Tashkent Institute of Textile and Light Industry has been developing design and marketing skills with two other colleges in Uzbekistan.<sup>27</sup> The US Embassy sponsored English language teaching courses for academic lyceum and college students.

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<sup>23</sup> Eshchanov, R. A., Hodjaniyazov, S. U., & Matlatipov, G. (2011). Development of Distance and E-Learning Based Higher Education in Uzbekistan in Framework of International Collaboration. *Journal of Knowledge Management, Economics and Information Technology*, 1(7).

<sup>24</sup> Jones, P. (2011). Education as foreign policy: The European Union in Central Asia. In I. Silova (Ed.), *Globalization on the Margins: Education and post-Socialist Transformations in Central Asia* (pp. 63 - 94). Charlotte, NC: Information Age Publishing.

<sup>25</sup> Sia, E. K. (2014). Student motivation, intercultural competence and transnational higher education: Uzbekistan, a case study. *Journal of the Scholarship of Teaching and Learning*, 15(1), 57-69

<sup>26</sup> Gov.uk.2013 British Uzbek project on the Great Silk Road. [www.gov.uk/government/world-location/news/British-uzzbek-project-on-the-great-silk-road](http://www.gov.uk/government/world-location/news/British-uzzbek-project-on-the-great-silk-road). 23 June 2015.

<sup>27</sup> Sia, K. E. "International branch campus in Uzbekistan-teacher-centred vs student-centred learning approaches." *International Journal of Learning and Teaching* 6.1 (2014): 6.

Many other Uzbek universities are strongly engaged in international educational and scientific collaboration. For instance Urgench state University has several cooperative projects with foreign Universities like International MA courses in collaboration with Weihenstephan University of Applied Science. Project "Establishment of Computing Centers and Curriculum Development in Mathematical Engineering Master program" under the Erasmus + Programme - Capacity building in higher education was granted by the Education, Audiovisual and Culture Executive Agency (EACEA). Urgench State University is a regional coordinating university in the project. The project acronym ECCUM is derived from Latin means Observe, See. The Project Reference number is 561574-EPP-1-2015-1-ES-EPPKA2-CBHE-JP. The grant holder, applicant, coordinating university is the University of Santiago de Compostela. The project realization period is three years and will be active during 15/10/2015 - 14/10/2018. The total project budget is 636 496 Euros.

#### Specific Project Objective

- i. To develop interdisciplinary master program in Mathematical Engineering
- ii. To establish 5 Computing Centers in each Central Asian partner university and develop the shared platform between partners European project partners Grant holder: University of Santiago de Compostela (Spain).

#### Other projects with foreign universities

- i. State University of Pennsylvania, the Protocol for cooperation Making information exchange of knowledge between the Faculty of Engineering - engineering Urgench State University named after Al-Khwarizmi, Uzbekistan and the State University of Pennsylvania, USA. United States, Pennsylvania, 2002.
- ii. INSURANCE STATE University Belarus, Drawing up a contract "On the scientific and cultural cooperation between Belarus and the State University of Urgench State University named after Al-Khwarizmi (Urgench, Uzbekistan)", Belarus, Minsk, 30.05.2010-30.05.2015.
- iii. Warsaw University of Drawing up a contract between the Warsaw University and Urgench State University named after Al-Khwarizmi (Urgench, Uzbekistan) ", Warsaw, Poland, 29.09.2010-29.09.2015.
- iv. Premet Department and the United Nations spirituality Drafting agreements for the opening of the department "Sustainable Development and Environmental Education" at Urgenskom State University and the subject and the UN Department of spirituality, France, Paris, 18.11.2011-18.11.2015

Uzbekistan developed scientific and technical cooperation with U.S.A, European Union, Japan, China, Republic of Korea, India etc they have over 60 international agreements in the field of scientific-engineering cooperation and the protection of intellectual property. INTAS and INCO-Copernicus, NATO's Scientific Committee, the American Civil Research and Development Fund (CRDF) and the Ukrainian Scientific-Research Centre are some leading partners in the field of scientific-engineering. In 1999, about 4 million US\$ was allocated for Uzbek scientists as the international grant to implement the scientific and engineering projects. The Republic regularly hosts international scientific-engineering seminars and conferences in various fields of natural, humanitarian, scientific, medicine agriculture and applied research, the innovation issues, the Communication of science, the development and the transfer of technology.

International scientific and technical cooperation of the Academy of Sciences of the Republic of Uzbekistan is based on direct bilateral inter-Academy and inter-institutional cooperation agreements through research on international and foreign research grants, sharing of competitive research projects on international and bilateral programs, participation in various international forums, conferences, symposia, and the organization of international conferences, exchange of scientific delegations, including those of the academies of sciences of various countries, etc.

International scientific and technical cooperation of the Academy of Sciences experiences its further development both on a multilateral basis with Academies of Sciences of the CIS-countries and the member-states of the Shanghai Cooperation Organization, with the Academy of Sciences for the Developing Countries - TWAS (Trieste, Italy).

So, according to the TWAS Executive Director Prof. Murenzi information from 21.11.2014 in connection with the prospective candidates and the TWAS competition choice it has been selected four the TWAS – 2014 Prizes winners for Young Scientists from Uzbekistan Academy of Sciences:

- i. in Biology - Dr. Hegay Tatyana (UzAS Institute of Immunology),
- ii. in physics - Dr. Abdujabbarov Ahmadjon (UzAS Institute of Nuclear Physics),
- iii. in chemistry - Dr. Bobakulov Hayrulla (UzAS Institute of Common and Nonorganic Chemistry),
- iv. in Astronomy - Dr. Tillayev Yusufjon (UzAS Astronomical Institute).

UzAS congratulates all the competition winners with the TWAS – 2014 Prizes awarding.

Academy of Sciences of Uzbekistan in recent years successfully developed international scientific and technical links with its traditional partners from the CIS countries - Russia, Ukraine, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Azerbaijan, and the United States, Germany, France, China, Korea, Japan, Turkey, Egypt and other countries.<sup>28</sup>

In the period between 2006 and 2012, AS RUz signed and is implementing now 11 international agreements on scientific cooperation, as well as the Executive Program with the Academy of Scientific Research and Technology of Egypt, and the Research Institutions of Uzbek Academy of Sciences signed 26 international agreements on scientific and scientific-technical cooperation.

In 2010, a license agreement was signed with the American company ENVIROMATION INC (for the first time in the U.S.) for the commercial production of Stirling engine with power capacity of 5 kW using the technology developed by Physical-Technical Institute of the Uzbek Academy of Sciences, based on the inventions confirmed by copyright certificates and patents of the Republic of Uzbekistan.

In 2012, an agreement was signed with the Asian Development Bank on the establishment of the International Institute for Solar Energy by the Uzbekistan Academy of Sciences (SPO "Physics-Sun"), and it has begun to work in 2013.

## Conclusions

In essence it is the big challenge for developing country like Uzbekistan with the middle-income country to take part in the international education market. . Two kinds of phenomena became

<sup>28</sup> <http://academy.uz/en/scientific/index.php>  
<http://jrdsjournal.wixsite.com/humanities-cultural>

quickly ubiquitous in the nascent republic (Uzbekistan), since the collapse of the Soviet colonial hegemony in 1991, were variously reforming and nationalizing and the scramble to assemble new strategies for survival and success in economic crises and higher education system. Most impressively, Uzbekistan's government has succeeded in finding sympathetic foreign partners and international organizations to deal with its higher education system; these foreign bilateral agreements have the declarative character in shaping the future of HEIs by international standards and boost the qualitative and quantitative education in the republic since independence. In future the Republic needs more internationalization of higher education scenario, and open doors for international students with more flexible and comprehensiveness approaches.

## References

1. Altbach, P.G.; Knight, J. „Internationalization of higher education: Motivations and Realities“. In: *Journal of Studies in International Education*, 11(3-4), 290-305, 2007.
2. Altbach (2008), The Global market bubble. Retrieved from; [www.timeshighereducation.co.uk](http://www.timeshighereducation.co.uk)
3. Calof, J. A. (1995). Adopting to Foreign Markets: Explaining Internationalization. *International Business Review*, 4 (2), 115-131
4. De Prado Yepes, C.(2006). World regionalization of higher education: Policy proposals for international organizations. *Higher Education Policy*, 19(1), 111-128.
5. Dr. Olga Nessipbayeva and Dr. Tenlik Dalayev. (2013) Developmental Perspectives on Higher Education in the Post-Soviet Countries (for the Cases of Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan) *Social and Behavioral Sciences* 89 391 – 396
6. Eshchanov, R. A., Hodjanizayov, S. U. & Matlatipov, G. (2011). Development of Distance and E-Learning Based Higher Education in Uzbekistan in Framework of International Collaboration. *Journal of Knowledge Management, Economics and Information Technology*, 1(7).
7. Gov.uk.2013 British Uzbek project on the Great Silk Road. [www.gov.uk/government/world/location-news/British-uzzbek-project-on-the-great-silk-road](http://www.gov.uk/government/world/location-news/British-uzzbek-project-on-the-great-silk-road). 23 June 2015.
8. Johnson, J. and L. G. Mattsson. (1988). Internationalization in industrial systems: A network approach. In N. Hood and J. E. Vahlne, (Eds) *Strategies in global competition*. New York: Croom Helm (287-314).
9. Jones, P. (2011). Education as foreign policy: The European Union in Central Asia. In I. Silova (Ed.), *Globalization on the Margins: Education and post-Socialist Transformations in Central Asia* (pp. 63 - 94). Charlotte, NC: Information Age Publishing.
10. J.Knight. (2004). Internationalization remodeled: Definitions, Approaches, and Rationales. *Journal of Studies in International education*, 8 (1), 5-31.
11. Jose Joaquin Brunner and Anthony Tillet (2014) “higher education in central Asia: the Challenges of Modernization” p.181
12. Karlvermark Torsten, V. D. (1997). *National Policies for Internationalization of the Higher Education*. Europe: National Agency for Higher Education.
13. Knight, J. (1997) Internationalization of Higher Education: a conceptual framework, in L. Knight and H. De Wit (Eds) *Internationalization of Higher Education in Asian Pacific Countries*, pp.5-9. Amsterdam: European Association for International Education

14. Ministry of Higher and Secondary Special Education (MHSSE) of the Republic of Uzbekistan.(2014) . <http://www.gov.uz/en/authorities/ministries/130>
15. OECD (2004), Internationalization and trade in higher education: Opportunities and challenges. Paris; OECD Publishing.
16. Sia. E.K. (2014). Transnational higher education in Uzbekistan, Perspectives: Policy and Practice in Higher Education, 18:4, P.139. DOI: 10.1080/13603108.2014.979263 <http://dx.doi.org/10.1080/13603108.2014.979263>
17. Sia, E. K. (2014). Student motivation, intercultural competence, and transnational higher education: Uzbekistan, a case study. *Journal of the Scholarship of Teaching and Learning*, 15(1), 57-69
18. Sheppard, M. & Bellis, P.(2013) The Bologna Process: Supporting the internationalization of higher education in the UK. Retrieved from <http://eunis.dk/papers/p37.pdf>
19. Teichler, U.(2010) "Internationalization Higher Education: Debates and Changes in Europe." Higher education 48. 26.
20. TEMPUS REGIONAL CONFERENCE (2004)“HIGHER EDUCATION IN CENTRAL ASIA: ONGOING REFORMS AND FUTURE PERSPECTIVES” TASHKENT, 22-23 .
21. UNESCO. (2003). Higher Education in Globlised Society. <http://unesdoc.unesco.org/images/0013/001362/136247e.pdf>.