

Marija Vuksan,
PhD candidate

Dr Milutin Delic,
PhD candidate

Zivka Przulj,
PhD
American University of Central Asia

*The Role of Universities in Knowledge-Based Economy**

Introduction

In today's open and competitive global economy knowledge and innovation become major driving factors of growth and economic development. Advanced economies have transformed their foundation from tangible based formation toward intangible, knowledge-based systems. Observing the trends of educational development in Europe and throughout the world, we see transformation necessity of educational system and roles of universities, so they can meet requirements to sustain path with new economic paradigm.

The main challenges that educational system is facing today and that strongly influence its development are: a declining population, diverse and changing values, the need for continuing education, new technologies and communication forms, necessity to promptly acquire knowledge and skills inevitable for new technologies, contemporary manufacturing and production processes and non-economic activities. To ensure progress durability in educational system, which directly supports modernization and expansion of a knowledge-based economy and society, the certain changes need to occur in planning and managing universities and educational system development.

1. Changing environment

Economies throughout the world are generating the knowledge as their key resource for development. Using knowledge as an important item in economy is not a new idea; however, the level of integration of knowledge into economic activity is creating valuable economic changes, thus modifying the basis of competitive advantage. UK Government's Competitiveness White Paper defines the knowledge driven economy as

... one in which the generation and the exploitation of knowledge has come to play the predominant part in the creation of wealth. It is not simply about pushing back the frontiers of knowledge; it is also about the more effective use and exploitation of all types of knowledge in all manner of economic activity.¹

* Доклад представлен автором на Республиканской научно-практической конференции «Образование и наука в современном университете: опыт, теория, практика» (г. Бишкек, 13 марта 2008 г.).

Joseph Stiglitz argues that knowledge has different characteristics unlike ordinary commodities that, consequently, have repercussion for the way a knowledge economy must be organized. The policy-makers' approach toward organization of economic activities, its consequences and industrial policy instigate observations by the World Bank and the OECD:

"For countries in the vanguard of the world economy, the balance between knowledge and resources has shifted towards the former; knowledge has become, perhaps, the most important factor determining the standard of living..... Today's most technologically advanced economies are truly knowledge based." (World Bank 1998)

.... the emergence of knowledge based economies....has profound implications for the determinants of growth, the organization of production and its effect on employment and skill requirements and may call for new orientations in industry-related policies. (OECD 1998)

1.1. The Impact of Social and Economic Changes on Education

In the economic environment, where the high value production base has shifted to information and knowledge, the quality of educational system becomes an essential component of country's response to these challenges. The role of the educational system is to generate intellectual, professionally skilled, and competent human capital that will benefit economic and country's common development. A precondition for the active participation of people in the knowledge-based economy and the society is the possession of the basic level of linguistic, scientific, mathematical, technological and social education. Excessive differentiation in education and changing economic and social environment could lead to fewer possibilities for continuing education and the exclusion of individuals and groups from the educational system. However, through effective and advanced educational systems, countries can expand a sense of community, acceptance and tolerance of differences, solidarity, responsibility for sustainable development, as well as active citizenship and the development of democratic society as a whole.¹

Therefore, the quality, diversity and innovation of university system must be of the highest international standard. The higher level of investment in universities and funds for basic research will result in increased quality; diversity will be reached by providing universities with conditions for more powerful regionally-focused roles; stimulating and enabling innovation will result in changing universities as more effective partners with private sector.

1.2. Changes in the Labor Market

During the period of rapid social and economic changes, and therefore changes in the labor market, it is critical to link educational system with economic development strategy. The importance of knowledge is hastily rising. Practice is showing that the greatest escalation in labor demand will arise in the field of intellectual services, particularly through the development of information and communication technology sector (ICT). Primarily flexible organizations need educational systems to increase level of investment in the production of people with broad-based problem solving skills and with the social and inter-personal communication

¹ DTI, 1999, *Economics of the Knowledge Driven Economy*, Conference Proceedings, Department of Trade and Industry, London, p. 5.

skills required for team work, along with skills and attitudes required for flexibility.¹ Therefore, it is essential to help universities to define policies which will focus on the development of human capital, skills and competencies, and capacity to learn.

2. Role of universities as economic actors

During the transition from economies based on land, labor and capital, to the ones based on information and knowledge, investment in education and research will produce a social and economic dividends. It is important to recognize that universities are major businesses in their own right.² The actual and potential assistance of universities to economic development can be seen through their wider functions in society as recognized by Governments worldwide. Universities are creators of knowledge; through their students, as future labour force, they play vital roles in the national and international public society. Therefore, they are inevitable contributors to national or regional economic planning. As historically most durable institutions, they have capacity to be leaders and major collaborators with other regional and national agencies in planning and promoting regional economic development. That is why they need to understand the innovation potential of their region, and to recognize their particular strengths and capacities in research and education and the relation of those strengths not only to regional innovation processes, but also to regional social and cultural priorities.³ Through their research base and research education, universities derive useful knowledge for the society and economy. They are main resources of expertise, innovative thinking, and highly skilled personnel that can be the main inducement for business and investment into a region.

In order universities to be able to accomplish maximal potential for dynamism and creativity, they need different state control and micromanagement of their processes of the traditional one. They need institutionally good leadership and management that will initiate creative and innovative environment that a hierarchically managed organization cannot emulate. Although it increasingly requires considerable leadership and management skills to ensure the goals of the institution are met and the reallocation of financial resources matching changing priorities is achieved without compromising the individual freedom that is the university's source of creativity.⁴

3. Priorities in educational development

During the last decade, most of the research-intensive universities have engaged into the innovation process more deeply in their mission, which helps them to define their actual and potential roles more clearly. This resulted in realizing that universities provide the highest level of financial return of public investments, making a significant contribution to GDP and national employment. Through the creation of knowledge economy modes; the creation of indigenous new businesses; transplantation from elsewhere; diversification into technologically-related

¹ Ibidem.

² <http://www.mzos.hr>

³ Oman C., 1996, *The Policy Challenges of Globalisation and Regionalisation*, Policy Brief No. 11, OECD Development Centre, OECD, Paris, p. 37.

⁴ *Universities and innovation: the challenge for Europe*, 2006, League of European Research Universities, p. 3

businesses; and enhancement of existing businesses, the university can contribute to specific modes of business transformation.¹ The starting point increasing the quality of educational system that will flourish the development of the knowledge-based economy and the society is to define the roles of universities and their activities. Universities need to contribute to the development of qualitative, open, flexible and effective educational systems that would create intellectual and working human capital as the key asset of the economic development. If universities are more effective in development of knowledge-based systems, they need to enhance supply of relevant university capacity; stimulate business demand; and improve university business interactions.²

- It is necessary to improve the university support for innovation through greater autonomy, encouraging academic freedom, defining appropriate funding mechanisms and specific strategic priorities;
- Improving connections between business and universities and stimulating the university-business interaction;
- Developing links between universities and the labor market which will establish regional inter-disciplinary networks to provide the necessary cooperation between educational systems, researchers, and labor markets.
- Development of management strategies and system, that enable the short and medium-term implementation of development measures supporting and promoting the achievement of education policy targets in the long-term.
- Defining the monitoring and evaluation measures for educational sectors that guarantee respect for educational legislation and standards.

Conclusion

Education is a strategic development priority for the various developed and developing economies and economies in transition. Considering that “the quantity of new knowledge is expanding very fast, knowledge acquired through the traditional education system becomes outdated and insufficient to meet the needs of an individual and the community.”¹⁰ Therefore, for nations to be prepared for life in a knowledge-based society, it is necessary to provide everyone with the opportunity for proper education and to develop an awareness of necessity for lifelong continuing education. Universities should be important contributors to national or regional economic planning, not only because they are important components of regional economies but also because they have been historically amongst the most durable institutions.³

That is why they have the enormous capacity to influence and participate in planning and supporting regional economic development. They need to define the innovation potential of their region, and to recognize their particular strengths and capacities in research and education and the relation of those strengths not only to regional innovation processes but also to regional social and cultural priorities.

¹ *Universities and innovation: the challenge for Europe*, 2006, League of European Research Universities, p. 7

² *Ibidem*.

³ *Universities and innovation: the challenge for Europe*, 2006, League of European Research Universities, p. 7

Bibliography

1. DTI. "Economics of the Knowledge Driven Economy." Conference Proceedings, Department of Trade and Industry, London, 1999.
2. Oman, C. *The Policy Challenges of Globalisation and Regionalisation*. Policy Brief No. 11, OECD Development Centre, OECD, Paris, 1996.
3. *Universities and innovation: the challenge for Europe*, League of European Research Universities, 2006.
4. European Commission. "Creating an innovative Europe." Report of the Independent Expert Group chaired by Mr. Esko Aho, 2006.
5. Department of Trade and Industry. *Our Competitive Future: Building the Knowledge Driven Economy*. Cm 4176. London: The Stationery Office, 1998a.
6. Department of Trade and Industry. *Our Competitive Future: Building the Knowledge Driven Economy: Analysis and Background*. London: DTI, 1998b.
7. World Bank. "Knowledge for Development". World Development Report. New York: Oxford University Press, 1998.
8. Kelly, U., McLellan, D. and McNicoll, I. "The economic impact of UK higher education institutions." A report for Universities UK. University of Strathclyde, 2006.
9. Lambert, R. and Butler, N. *The future of European universities: renaissance or decay?* Centre for European reform, 2006.
10. OECD. *The Knowledge-Based Economy*, OECD, Paris, 1996.
11. <http://www.mzos.hr>

З.К. Дербишева
профессор, КТУ «Манас»

*Проблемы языка образования в поликультурном обществе**

Существует исторически устоявшийся смысл понятия «образование»: согласно классическому определению В. Даля, образованный человек – «получивший образование, научившийся общим сведениям, познаниям». Уже в наши дни, в 1998 году, выходит академический Большой толковый словарь русского языка, и в нем понятие «образование» эксплицируется двояко: «1. Процесс усвоения знаний», с синонимами «обучение, просвещение». «2. Совокупность знаний, полученных в результате обучения», и соответственно человек «образованный» означает «имеющий разносторонние знания». Процесс вхождения в культуру вступающих в жизнь поколений, тем более, что и система образования, и феномен интеллигентности являются конкретно-историческими формами культуры.

* Доклад представлен автором на Республиканской научно-практической конференции «Образование и наука в современном университете: опыт, теория, практика» (г. Бишкек, 13 марта 2008 г.).