

Knowledge sharing between the economic environment and universities using innovative entrepreneurial learning techniques

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Abstract: *The rapid changes in the social, economic, legal and technological environment, combined with the IT challenges and with an increased competition on the educational market has led the academic environment to the necessity to adapt itself, to seek to implement new learning methods and techniques in order not only to survive, but to become more significant parts of local communities. The main purpose of the paper is to explore and analyze several ways of knowledge sharing between academic and business environment that are considered innovative and capable of producing long-term positive results in terms of improving the educational process in business domain.*

Key-words: *knowledge sharing, innovative learning techniques, entrepreneurial university*

1. Entrepreneurial universities and innovative knowledge sharing

Nowadays, the education paradigm changes because teachers and students have increased access to alternative sources of learning, many of which being offered in open source systems. The main questions that arise in front of higher education institutions (HEIs) refer to themes such as:

- What is to be done in terms of education for facilitating the knowledge sharing in this new and challenging environment?
- What kinds of skills are needed in the 21st century?
- What universities can provide to increase academic community's motivation to participate as active partners in knowledge sharing process?

This paper aims to explore and analyze several ways of knowledge sharing between academic and business environment that are considered innovative and capable of producing long-term positive results both in terms of improving the educational process in business domain and in transforming universities' vision, mission and role inside local communities.

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It's a fact that ICT and particularly the internet plays a major role in knowledge sharing and dissemination, and universities are confronted more and more with the need of rethinking their vision, mission and development strategy. Universities must move from their traditional "centres of learning" role to a more entrepreneurial one, in order to be able to maintain their influence in society (Guerrera et al. 2014, 415). In doing so, the universities' strategy must be redefined to offer the academic community the opportunity to have more initiatives, to be more involved in the life of the society, and to develop active partnerships and knowledge networks in order to facilitate a better knowledge sharing.

Knowledge sharing is the main subject of an impressive number of scientific studies aiming to clarify not only the conceptual pillars and meanings, but also its benefits for organizations and society. According to Moustaghfir and Schiuma (2013, 496) "a virtuous cycle of creativity, research and development, knowledge generation, application, and innovation has accentuated the rate of competition and change. Knowledge, competences and related intangibles have emerged as the key drivers of competitive advantage which made organizations rethink the way they do business and remain profitable". According to Nonaka and Takeuchi (1995) knowledge and intellectual capital are organization's primary source of value, because in a more competitive and globalizes world, where new communication technologies facilitate the democratization of knowledge and a faster than ever flow of information, the sustainable source of competitive advantage become more and more the highly educated human resources.

All successful organizations are currently recruiting, selecting, retaining and developing personnel based on their potential to develop new approaches for future organizational development, a key process of those successful organizations (the so-called *learning organizations*) being their ability to use knowledge sharing between persons, groups and organizational units in building their success.

2. Methods for knowledge sharing to improve business educational process

In terms of education, knowledge is defined as what is learned and it encompass the use of three key items: aptitudes, attitudes and skills. *Aptitude* is that component of a competency formed through formal, non-formal or informal education that allows a person to perform a certain work at a specific level. Competencies are formed in various ways, both in schools and out of schools (Eshach, H. 2007).

In Robbins and Judge's view (2009), *attitude* is the tendency of responding positively or negatively towards certain idea, object, person or situation. Attitude refers to cognition, affect and behaviour and, during the time, various forms of education emphasise the importance of learning attitude because of its link with personal emotions, opinions and intentions of acquiring knowledge.

Skills complete the knowledge circle representing the learned ability to carry out a task using a certain amount of time and energy in order to obtain a desired result.

HEIs declared mission is to produce professionals for various domains with supposedly required aptitudes, attitudes and skills. These professionals are supposed to create, transform, apply and translate new and existing knowledge to the production of knowledge workers with the requisite capabilities to enhance organizational performance (Gera 2011).

The democratization of knowledge and the more easier access to information put universities in the position of reshaping and adapting their educational processes in a manner that should facilitate the knowledge transfer both ways: from HEIs to the economic environment, but also from various organizations to universities.

The role of modern technologies in education and academic knowledge sharing has been documented by many scientists (Hsu, 2007, van den Broek, 2012), but depending on study field and country, each education process has its own particularities that imply the use of certain specific methods for knowledge sharing. (Smith, J., Ran, H.2013). Santicola (2015) affirms that in Economics, the most dominant instructional technique across American post - secondary institutions is still the passive lecture and, for improving the students learning outcomes, he advocated for the use of academic controversy lessons. Davis (2011) studied the effect of using games and simulations in learning economics and advises educators to combine them with technology in order to “generate the environment within higher education that can produce the highly-skilled professionals which are required”.

An interesting academic partnership (“Vision 50+20”) pointed out that “management education for the world should provides education and research that is relevant & applied, holistic & integrative, responsible & sustainable, inter-disciplinary & multi-level, and, of course, learning-oriented” (50+20 Management Education for the World, 2012).

In recent years (following the financial crisis in 2008), it was highlight numerous times that one of the current challenges for business schools is to develop more permanent skills and knowledge through implementing innovative learning techniques to prepare their graduates for action responsible in the 21 century’s challenges. And to be aware that the most required skills for 21st century refer to: learning and innovation skills (critical thinking and problem solving, communication and collaboration, creativity and innovation), digital literacy skills (information literacy, media literacy, ICT literacy), and career and life skills (flexibility and adaptability, initiative and self-direction, social and cross-cultural interaction, productivity and accountability, leadership and responsibility). (Trilling and Fadel 2009).

Back in 1980’s, the recommended methods for teaching students in economics were related to self-questioning, rehearsal and problem solving (Fels 1985). Nowadays, because of the new requirements and of rapid changes of the

economic environment, in order to foster knowledge sharing, we recommend including also learning methods such as:

- meetings with business persons and participating to open seminars;
- video-conferences, web-seminars, MOOCs, wikis, blogs, podcasts;
- learning-by-doing (real world learning experience);
- learning-by-developing (peer to peer, peer-to-mentor, etc.)

Meeting successful entrepreneurs and listening to their stories of personal experiences about risks, success and failure allow students in economics to better understand and develop the acquired knowledge. In such meetings, students can validate the theoretical knowledge they possess, but also can improve some of their skills such as oral communication and critical thinking. In students opinion, the art (and courage) of asking a good question for obtaining an interesting response from the invited guest, as well as the ability to offer a pertinent opinion in a direct conversation with such experimented speaker are among the most valued results of this method. The academic community can also benefit from these meetings by reinforcing personal contacts with business environment and by using it not only in improving the quality of case studies they taught in classrooms, but also as a base for partnerships in developing future projects.

Studies developed in the recent past ten years by Hodges & Burchell (2003) and Miller (2006) indicated that for employers and managers the ability and willingness to learn as well as the interpersonal competencies are being among the most valuable competences of students and graduates. In this respect, the universities will have to adjust their curricula in order to be more competence-based oriented and to be able to integrate, offer and disseminate digitalized information. They have to be more connected, to transform themselves into significant hubs for social activities and to offer more dynamic and market oriented specializations (Willey, Hilton, 2009).

Early critic discourse in learning even support the idea that the whole learning process should be approach rather in a disestablished way than in an academic, formal, one and introduced the idea of “Deschooling Society”(Illich 1971).

New approaches in learning (subject to this idea), developed in the 2000s, accredited the idea that open learning systems can improve both the process of learning and of knowledge sharing. As a consequence, following the year 2011, a number of other innovative learning methods emerged, namely the massive open online courses -MOOCs (such as Coursera, iversity, Desire2Learn, FUN, Khan Academy, Udacity, etc.) - which are basically distant-based approaches to e-Learning web platforms that offered a variety of courses to huge number of students on various subjects under a subscription or per-course model, the facilitator being either an academic “guru” or a reputed practitioner.

But, as Robert Zemsky (2014) observed, each MOOC course is focus on a well-bounded subject and have little connection with other MOOCs in term of curricula competencies. It is true that students can attend a wide variety of

economic courses via MOOCs to add new knowledge to those offered by their own university and to obtain future competences, but, in our opinion, this should be seen as an additional method of knowledge sharing rather than a major one. And so are the wikis, the blogs and the podcasts, that can offer access to a variety of information, but to little knowledge. Still, recent studies in pedagogy (Khairnar, 2015) indicate ones more that use of hybrid teaching and learning techniques such as video-conferences, podcasts, blogs and wikis represent helpful tools in education, because can contribute to a better understanding of various theoretical concepts.

Learning-by-doing, on the other hand, connect students directly to the real world, offering them valuable learning experiences. There are findings about how learning-by-doing is improving the entrepreneurial self-efficacy of students, compared to lecture-based method (de Grez, Van Lindt, 2013) as well as studies related to how experiential learning can improve the corporate responsibility of students (Coughlan 2008).

Learning experience such as internships offer students the possibility to understand how their theoretical knowledge can be applied, how to acquire knowledge about a business-sector, how to establish relationships with people in various domains of activity and how to collect data applicable to the exercise. More important, students can learn how to develop group working and communication skills. (Ball, 1995).

Peer-to-peer (P2P) learning implies the sharing of knowledge and experiences through formal or informal social networks in a two-way (or more) communication process where every participant can be a teacher and a learner. Students can benefit of the P2P method primarily in a cooperative environment, where the teachers are ready to use student leaders to help fellow students understand the tenets being taught. In P2P, students defined the theoretical approach with some help from their teachers, but they need to choose what to read in order to meet the practical side; they learn in a very practical way, applying the theory (which they found in books, online courses or even from their peers who have experience in that field) and develop their leadership skills, time and team management skills, and learn practical things they can apply at future work places.

Boud et al. (2001) accepted it as a valuable technique of learning, one that transfer not only logical and rationale knowledge, but also offer emotional support during the process of learning. Together with professional knowledge sharing, peer learning is developing certain competences such as the ability of working with others, the ability of critical enquiry and reflection, communication skills, ability to manage the learning process and an increased ability to learn as well as the ability of self and peer assessment.

3. A framework for implementing innovative entrepreneurial learning techniques

Wide world, the majority of education institutions continue to struggle to put innovative ideas into practice (Duderstadt 2000, Bok 2006) and Romanian HEIs are no exceptions.

Few studies present the effects of implementation of new teaching methods for knowledge sharing between universities and the business environment in Romania. The most of them focused on discussing strategies for implementing long life learning system and e-learning platforms (Paraschiv, and Stoika 2013; Popescu 2012; Pamfilie et al., 2013, Giurgiu, Mester, 2012), or how the use of wikis and Facebook can improve the foreign languages for business learning (Felea, Stanca, 2015) or identified the most common teaching methods for Romanian business universities (Mutiu, 2011). The knowledge sharing has been studied only for medical education from a teamwork perspective (Brătianu, Vasilache, 2012).

A study conducted in 2003 revealed the opinion of the business environment related to poor practical knowledge of students (Nicolescu 2003), and a more recent one (Deaconu et al. 2014) revealed that, nowadays, employers attach more importance to transversal competencies than to professional competencies of students.

The implementation of an entrepreneurial system for innovative learning techniques is a challenging project, due not only to numerous attempts of reforming the higher education system in Romania over the past 25 years, but also to a turbulent labour market. In the following paragraph, we propose a model that combines the concept of entrepreneurial university (Bratianu, 2010) with the one related to implementing a blended learning system (Carman, 2005).

An entrepreneurial university is shifting from its traditional role to a new one of producing knowledge for a more dynamic market, taking certain risks in changing its structure, procedures and culture for the purpose of remaining an influential actor of the community. The vision that such a university should embrace is to collaborate with valuable partners to produce knowledge and educate students for the 21st century, with a mission centred on offering high quality learning experience and valuable knowledge. Main values to be promoted are: excellence, entrepreneurial spirit, trust, collaboration and openness. The structure of HEI must be changed from a mechanistic approach to a more organic one, based on excellence centers in order to be able to implement and support these values. Implementation of innovative entrepreneurial learning techniques is part of universities' redesign processes that should take place to support their entrepreneurial vision and mission. For that respect, we propose the development of 5 processes:

1. Integrate academic processes of learning with research and development of powerful consortia (universities, regional/national development agencies and

- economic clusters) to capitalize opportunities, to foster and implement innovative ideas;
2. Creation of meaningful events that bring the university staff and students together with relevant partners (policy makers, former students that became successful entrepreneurs, regional clusters representatives, etc). Such events must be organized on a regularly basis, and their main purpose is to create new connections and a frame for both side-communication; various forms of such events include: international conferences, dialogues with practitioners, meetings with alumni, etc.
 3. Redesign the curricula to include more courses about creativity and innovation, critical thinking, leadership, digital literacy, entrepreneurship, communication and career management both in bachelor and master programmes; involve interested representatives from external environment to collaborate in curricula redesign for defining the required competences of the future graduates;
 4. Redesign the educational process to value “learning”, not the act of “teaching”: allow all participants (students, professors, other interested parties) to collaborate, learn from each other and exchange knowledge using a variety of learning methods and tools (such as peer-to-peer, peer-to-mentor techniques, using the multi-media tools discussed in the previous paragraph); main issues here is related to the organizational culture that should be strongly oriented to encourage openness and collaboration instead of mistrust and competition. The organizational culture should be viewed as a road map to implement the necessary changes of the educational process; create “help desks” that personalizes, sustains and coaches the participants;
 5. Redesign the process of assessment to enable all learners (students, teachers, HEIs managers, interested third parties, etc.) to test their knowledge and to fine-tuning their theoretical and practical expertise; universities should allow continuous evaluation of knowledge sharing by offering support in accessing proper information (digitalized references: e-books, wikis, podcasts, video-seminars, MOOCs, etc.).

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Universities in eastern Germany are actively engaged in supporting entrepreneurship. Many have established entrepreneurship professorships, departments and institutes for entrepreneurship that already feature as integral parts of the internal support structure. Dedicated start-up support services by Entrepreneurship Centres and technology transfer units offer would-be entrepreneurs and those already in the start-up process, consultation and access to networks and premises. Much can be learned from an international exchange of information on what works and what are the likely pitfalls.