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Education and Knowledge Transfer: A Priority for the Future

Executive Interview: Lucas Vokurda, Research Coordinator School of Agriculture and Technology, INHOLLAND University, Netherlands

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Abstract

Education is and remains the principal means of building capacity which in turn contributes to the development of society. It is also the single most important factor in determining one's standard of living and income potential. The phrase "knowledge is power" holds a lot of truth. On the other hand, it is a strong driver for value chain improvement, while also contributing to the education system. For an economy to compete in the global marketplace, knowledge transfer and collaboration need to be increased to get research into practice. If the knowledge and learning is to be useful it has to be applied to the areas of life where it can make differences. The focus of this report is on education and knowledge transfer from research or research-related activity. It also discusses the activities of INHOLLAND University in building network with other universities in Visegrad countries with the objective of building capacity in the countries with respect to food safety, quality and chain management.

Keywords: research, capacity building, knowledge transfer, chain management

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Introduction

Within a modern, knowledge driven economy, knowledge transfer is about transferring good ideas, research results and skills between universities, other research organizations, business and the wider community to enable innovative new products and services to be developed (UK Office of Science and Technology, 2005). In parallel with the governments increasing investments in research, there is a need for an effective two-way link between research and the market to ensure that good research becomes good business. Also for an economy to compete in the global marketplace, knowledge transfer and collaboration need to be increased to get research into practice.

The main business of higher education is to teach students and to create new knowledge through research. However, if the knowledge and learning is to be useful it has to be applied to the areas of life where it can make differences. Investment in research provides much of the foundation for innovation, and the new products and services that result. Knowledge transfer also generates a return on the investment of public funds in the science research base. It has the power to influence policy and to radically improve service delivery and efficiency. Communication is very important in Knowledge transfer. No matter how strong the evidence from a research, it will make no difference to policy or practice if it is not communicated to the right people in the right way at the right time.

Universities and Publicly Funded Research Agencies (PFRAs) are knowledge organizations; their core objectives are to generate, acquire and transfer knowledge. These objectives are realized through the full range of functions performed, including research, teaching and community service or engagement. They are playing an important role in the process of stimulating economic growth. Knowledge transfer is significantly integrated with the academic domains of research, scholarship and learning and teaching, which are themselves overlapping and integrated. World-class research activity generates a wealth of new knowledge and technologies that can be commercialized to the benefit of the economy and the community at large. Two broad trends are reshaping the way that companies are undertaking research around the world. The first is that they are moving away from a system in which most of their research and development (R&D) was done in their own institution, to one in which they are actively seeking to collaborate with others in a new form of open innovation. The second is that business R&D is going global. Multinationals are locating their research centres in their most important markets, especially if those markets happen to contain centres of outstanding research. Knowledge transfer now sits alongside teaching and research as a core function of the University. Examples of knowledge transfer include applied and collaborative research, consultancy, sponsored students, licensing and spin-out of intellectual property, non-accredited taught programs and regional projects. Effective knowledge transfer strategies rely on the capacity of institutions to shape their

knowledge transfer approaches and activities in partnership with their various communities, and to respond creatively to the distinctive needs of those communities. From this perspective, a 'healthy' system of knowledge transfer should demonstrate considerable diversity in knowledge transfer approaches and activities, both within and across institutions and across disciplines and national research priorities.

Executive Interview

What is your understanding of the concept of knowledge transfer?

It is a very broad concept, and there is no single definition for it. Knowledge transfer is when know-how and knowledge are becoming available in a systematic way to those who did not have previous access to it. The concept is still frequently misunderstood and it is very important to communicate the new message. A lot of people still think of it as a sneaky way for universities to make money out of the good ideas of their academics which is rather a narrow and old fashioned viewpoint. That's not to say that research institutions and universities are not going to make money by selling products of their research work. Above all it's about creativity, without which knowledge transfer will be a non-starter. It is an area that attracts creative and can-do people from all sorts of disciplines. Through knowledge transfer research output are able to make impact beyond the walls of the university by making it reach the real world, otherwise what is the benefit to the society? In addition to this, staying in touch with what is happening outside the university helps in developing courses, research projects and initiatives that are timely, relevant and useful for businesses, public services and communities. It represents a major component of the community's return on public investment in universities and should consequently be valued and actively encouraged across all disciplines and all institutions.

In your opinion what are the linkages between agribusiness and knowledge transfer and how is knowledge made available?

Agribusiness is a field where the "know-how" may be more important than empirical knowledge. This field is mainly practice oriented, and driven by experience. The distance between text-books and practice may be very different. This knowledge is not a shelf product (though more and more companies are offering their practice expertise for the right price). If knowledge is not shared, one can expect to re-invent the wheel on many issues that have already been solved. There should be a systematic way to develop knowledge transfer. The vector of knowledge transfer is people. Teachers and students should be exposed in a systematic way to material which is in their field of interest. Knowledge transfer takes place whenever the discoveries or expertise of academics are disseminated more widely. In the academic environment new research ideas are made public

through journals, conferences and papers. You can see IAMA is very important in the agribusiness set up because it provides avenue for knowledge to be transferred. The new ideas can either stimulate new thought or be applied to new uses by other academics. Another very important way is through training that higher institutions and organizations offer to industry.

It is very important for an economy to build capacity. What roles do you think education has to play in capacity building?

Education is and remains the principal means of building capacity which in turn contributes to the development of the society. To build capacity one has to know how to do so. Knowledge is a strong driver when building capacity. For example, if a university in a developing country will benchmark the course level and materials of a certain program to the level of a leading university, the graduates should have the same skills and competences. These go to the workforce and practice what they have learned. This is one way of capacity building.

There is a general belief that education in developing countries is not as developed as that of the developed countries. What do you think are the key challenges of education facing developing countries?

Obstacles which hinder education in developing countries include those of access and retention. They also include obstacles in the quality of education and those which arise as a result of lack of relevance of curricula. These issues are interrelated and are intensified by the worsening poverty levels and conflict situations as well as inadequate funding by governments. Access to education is a key concern. The underlying causes can be traced to severe shortage or complete absence of schools as well as difficulties with teacher supply. Apart from access, another key education issue is that of educational quality. Quality education is conceptualized as education which develops the mind, instils problem-solving skills and the ability to think creatively. Quality schools are characterized by good-quality teachers, quality instruction and a good evaluation system. The challenge for developing country education is how to arrive at progressive improvements in teaching/learning interaction through improved teacher training, proper motivation of the education work force, relevant textbooks and other education materials. The issue of adequate funding cannot be overemphasized, as funding remains the bedrock of success in any of the essential initiatives I have mentioned. To ensure successful implementation and sustainability of educational programs, Developing countries would need to devote a proportionately significant portion of their annual budgets to education. This will be used to fund payment of teacher's salaries and to procure current and relevant equipment and teaching aids.

The developed countries have roles to play in the development of education in the developing countries. What are the contributions of developed countries to the developing countries in terms of education and knowledge transfer?

To the best of my knowledge there are many NGOs that support these sorts of activities, as the World Bank, FAO, UN, and the European Community. Most of the developed countries have special departments which are responsible for helping developing countries in various fields. Knowledge sharing is one of the fields supported. I am sure that there are more frames that help and support, however I do not know them.

Lucas, you are a member of IAMA Task Force on Education and Knowledge Transfer. You are also involved in IAMA central Europe Task Force for a case project titled “Agro – food value chain development in Visegrad countries.” Can you tell me what the project is about and what you intend to achieve through the project?

Knowledge is a strong driver for value chain improvement, while also contributing to the education system. The project is dealing with analysing food value chain within the Visegrad countries. For a start we are working on a case per country and creating a module of knowledge–industry–government bond to improve the value chain. The approach of knowledge sharing and joint projects will be practiced for this project. These activities will be presented in IAMA conference 2009 as case studies. We are all looking forward to see this happen and all the stakeholders are making valuable contributions. Through this project we would be able to improve working relations between important stakeholders, promote sustainable development through knowledge sharing, value chain improvement and form bond with knowledge bodies. In addition to this we will be able to build network between INHOLAND University and other Universities in Visegrad countries and there are possibilities for student and teachers joint projects. You can see it’s all about knowledge sharing and transfer, food safety, quality and chain management.

This is a very big project Lucas, but how do you intend to achieve all the goals that you have set for the project?

We are going to create individual project units in each Visegrad countries. Each of the units will be independent and contain a working team of important stakeholder of the investigated value chain. These project units will act independently with advice and support of the project coordinators. The project coordinators will orchestrate the project units and will interact between them when needed. The coordinator will assist in applied research and other needed activities. To ease the orientation, it is suggested to divide the project into two main concepts. The first one is the macro environment and the second one is the micro environment. The macro environment is the general frame which describes the general interaction of

units within the project. The micro environment is the interaction within the organizations and countries.

You mentioned two important concepts, macro and micro environment. Can you elucidate these concepts?

Let me start with the macro structure. The project is mentioned to run parallel in the four Visegrad countries, while each country forms a project unit. The coordination is the main communication facilitator of the project, and act in a horizontal and vertical way. Each project unit is expected to act in a generic way, however contents may vary. The interaction between different project units is made mainly via scheduled meetings and conferences; however it may be possible to develop horizontal communication channels, if needed. The role of coordinator is to facilitate communication and establishments of knowledge networks according to needs. These steps are designed to facilitate presenting the results in an effective way in IAMA conference 2009 and of course facilitate the added values of such activities.

The micro schedule is the schedule within a country and between same country organizations. These project units are expected to work together and define together value chain to be examined under this project. The value chain must be of high interest to the stakeholders. Through meetings the group should analyze and describe the value chain and define bottlenecks and problems, and through consultation with the coordination, form and action plan for further analysis and improvement. The results and processes are presented in general project meetings. The project units are expected to pass a report to the coordinator, in order to keep good communication for the project. To facilitate the analysis of the value chain, a questionnaire will be produced, to help analyse methodically the value chains. If needed, other tools will be developed to assist project units in evaluating and working the project. Consultancy services may also be given to project units if needed.

What are the case topics to be considered in this project?

At the moment there are five cases. Hungary is proposing four cases: Two from the poultry sector i.e. changing consumer values and the behaviour, the second one is about the effect of avian influenza. From the pork sector we want to look at the development of traditional pork and lastly economic and market connection of production and trade of organic foods and value added increasing effect of rural development in fruit and vegetables sectors. Czech Republic is proposing a case on meat and meat products based on pork. Slovakia prepared a case about the wine industry and Poland will give their case project topic in the near future.

This is indeed another section of knowledge transfer. Although I am conducting an interview but you have added a lot to me. All you have been saying sounds so interesting, but what are your achievements so far?

We have commitment of our partners in Central Europe to help in executing this project. We plan in the near future to have a meeting with some project stakeholders and take it a step further. IAMA has been able to provide the frame and stage, Universities provide the knowledge and know how, value chain stakeholders provide the content material, INHOLLAND University provides the coordination and cooperation and we are getting good progress reports from our coordinators.

Conclusion

The global economy is becoming increasingly more competitive and education is one of the key drivers. In order for society to advance the people must be educated. The importance of education is quite clear. One can safely say that a human being is not in the proper sense till he is educated. Education is the knowledge of putting one's potentials to maximum use.

Knowledge is one of the most important resources of an organization. Knowledge and knowledge creating skills in particular are important, as these capabilities are essential in the creation of new products and or enhancement of existing ones In order to compete in knowledge intense and globalize world an institution must continuously acquire, absorb, and transfer knowledge. These in turns leads to the creation of new knowledge. Institutions that are capable of producing a continuous stream of new knowledge are better positioned to achieve a competitive advantage. Institutions cannot create knowledge without the actions and interactions of individuals because knowledge is created by and resides within individuals. New knowledge is created when individuals solve problems by combining and exchanging information and know-how with others.

Knowledge transfer is not merely communicating or sharing information or making it accessible to people who need them. It comprises both dissemination and assimilation. Knowledge is effectively transferred when the recipient understand it well enough to use it effectively and efficiently. Knowledge transfer forms the primary intellectual conduit between the University's academia and the wider non-academic society. Knowledge transfer is the development of intellectual capital through a two-way mutually beneficial interaction between the university and non-academic sectors with direct links to teaching and learning and research, and informed by social and global issues.

It is therefore not an overstatement to say that education and knowledge is the priority for the future. It is an important tool for nation building and development. Knowledge transfer is not only from business to university and vice versa but there

is also a big involvement from the government and other knowledge bodies and they should become partners in policy making. Governments of developed nations are actively involved in education and knowledge transfer and this is helping a lot in the transfer of skills to young professionals. It would be of great help if the developing nations can be carried along in some of the projects. This will make a lasting impact on the development of the developing countries. Education and knowledge are important tools for capacity building, food safety, quality and chain management.

References

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