COUNTRY STUDY

MONGOLIA

ASK Asia

Erasmus Mundus Alumni Employability Study in the Field of Agriculture and Related Life Sciences

Agriculture
Skills
Knowledge
Asia

With the support of the
Erasmus Mundus programme
of the European Union

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Abbreviations and Acronyms

EM	Erasmus Mundus
EU	European Union
HEIs	Higher Education Institutions
MULS	Mongolian University of Life Sciences
MECS	Ministry of Education, Culture, and Science
MEDS	Ministry of Education and Science
MoFA	Ministry of Food and Agriculture
GER	Gross Enrolment Ratio

Executive Summary

As part of the Erasmus Mundus Action 3 project - Ask Asia, a comprehensive study was conducted in 2014-2015 to assess how the Erasmus Mundus graduates performed on the professional job market in Mongolia, so as to identify specific competences and skills that help these graduates to meet the expectations of their employers. To reach these specific objectives, data were collected through an online questionnaire distributed among EM alumni. In addition, interviews were conducted with key employers and informants who employed EM alumni. Moreover, a national workshop was organized on October 15, 2014, where selected employees and employers took part in a discussion about the results we had collected.

The development of any country depends on the accumulation of knowledgeable, skilful, and capable human resources. As a national economy becomes more knowledge-based, employment is characterized by an increasing demand for more highly-skilled workers. Obtaining experience through studying abroad is one way to build up these resources and achieve successful employment of them.

In Mongolia, most of the employers do not strongly differentiate between alumni who graduated abroad or at home. However, they agree that studying abroad has a big impact on the graduates' capabilities, and consequently on their employability. The results show that education, knowledge of languages and practical experience - particularly abroad - are the most important factors for recruitment. Candidates having good English communication skills are really advantaged in getting a better job and in their career progression. However, practical experience and the capacity to apply knowledge in practice seem to be the factors often missing in candidates´ backgrounds.

Employers mostly see EM alumni as advantaged, compared to the local graduates. Alumni with European experience are found to be more active, motivated to work and knowledgeable in technical subjects. Moreover, their capacity to do analysis and synthesis improved as well as their knowledge of English language. Opportunities for a promising career exist for alumni. However, this depends on each individual's capacity: a candidate should distinguish himself/herself in terms of their own ability, initiative and job performance to show the advantages of their having had a European education. In the discussion with employers, time management, research skills, responsibility, the capacity for analysis and synthesis, and the capacity to apply knowledge in practice were considered the most important abilities required by the employers. These findings indicate that soft and critical thinking skills are valued assets for job seekers on the professional market.

EM alumni feel that participation in the programme helped them to develop their competences and become competitive in the domestic labour market. A majority of the currently working alumni found a job in the

public sector and thus they contribute to capacity building in public institutions. Research showed that responsibility is the most important competence required in a range of positions. Contrarily, the ability to interact with different people and cultures is less valued in the professional environment.

Today, as the agricultural sector of Mongolia is developing towards becoming more integrated and intensified, new job opportunities and new positions are opening up, requiring outstanding specialists in the job market with competitive scientific knowledge, professional skills, foreign language ability, and the capability to develop agriculture into competitive agri-businesses via innovation in all aspects of sustainable development. To conclude, though obtaining an education in the home country is beneficial, EM alumni are more advantaged thanks to the capabilities that they acquire via the European experience, which, it can be seen, consequently results in them acquiring higher social status. Being an EM alumni is a good starting point for a career.

Introduction

Mongolia is one of the countries that benefits from the Erasmus Mundus Programme that provides scholarships for Mongolian students to study at selected European universities. Such cooperation aims to build up the human resources for the future development of Mongolia. Up to date, over two hundred Mongolian students, scholars and fellows from Mongolia have been selected to take part in the EM mobility and to experience educational excellence at European universities, 18 of them under the Action 1 programme and 227 under the Action 2 programme (European Commission, 2014). The second phase of Erasmus Mundus was run between early 2009 and 2013 and this naturally led to the question of its success in the following years. This country report is part of a comprehensive study that was conducted under the ASK Asia project. The **project ASK Asia** ("Agriculture, Skills, Knowledge in Asia: Competences and Employability of Erasmus Mundus Graduates in Agriculture on the Asian Professional Market") is an Erasmus Mundus Action 3 project funded by the European Commission (EACEA) in the period from 2013 till 2015. The main objective is to assess how the Erasmus Mundus graduates in Agriculture and related Life Sciences performed on the professional job market in Asia and to identify specific competences and skills that provided these graduates with a comparative advantage in meeting the expectations of their employers following their education/training period.

Brief overview of Mongolian higher education and labour market

Since transitioning from socialism to a multi-party democracy, the economic situation of Mongolia has improved. According to the World Bank (2012) the economic growth rate was estimated to be 12.5% in 2013, compared to 6.4 % in 2010. At the same time, poverty has been declining over the past decade. In 2010-2011 it decreased from 39.2% to 29.8%. More progress towards the Millennium Development Goals has also been achieved, however, there are still significant disparities among regions, mostly between rural and urban areas. The economy of the rural areas is based on agriculture which contributes 20% to the GDP of the country. More than 80% of agricultural activities are constituted by livestock production, mainly of goats, sheep, cattle, yaks, horses and camels (Mahul et al., 2009).

Today, Mongolia is facing a major transformation brought about by increasing exploitation of its vast mineral resources. Mining contributes to GDP by a factor of 20% which is twice as much as ten years ago (World Bank, 2012). According to the World Bank, Mongolia has not accumulated savings from its resource revenues during the recent high-growth period. Therefore it is important to start thinking about managing resource revenues more effectively. There are also some calls for a structural shift in the economic policy framework to restore economic and financial stability. Concretely, monetary policy needs to be tightened to address high inflation (World Bank, 2015). In the following table the main economic indicators are described.

Table 1 Overview of Mongolian economy and demography

	2000	2003	2006	2009	2010	2011	2012	2013	2014
GDP per capita (constant 2005 US$)	474.2	646.2	1333.9	1715.4	2285.6	3181.1	3691.1	4056.4	-
Agriculture value added (% of GDP)	30.9	20.8	19.6	19.6	16.2	14.5	16.3	16.5	20.4
Gross agricultural production value (constant 2004-2006 million US$)	363.5	257.5	277.9	394.3	339.3	396.0	423.1	432.4	-
Population (1000)	2407.5	2504.0	2594.8	2735.8	2761.0	2811.0	2867.7	2930.3	2995.9
Agricultural labour (1000)	393.5	387.5	391.4	348.8	346.6	342.8	370.0	329.1	-

Source World Bank, 2015; FAOSTAT, 2015; Mongolian Statistical Information Service, 2015

Developments in the agriculture sector

The Government of Mongolia has prioritized the development of the livestock sector as a main sub-sector. This includes encouraging greater flexibility in the tenure of pastureland and increased investment in rural infrastructure and services. Government policy recognizes the need to improve the availability of finance in the rural areas to improve access by the poorer sections of the community to finance, production inputs and access to markets. A major thrust of government is to respond to the risks inherent in livestock husbandry through the establishment of clear and appropriate public-private initiatives. In addition, the government is providing significant financial support for investment in the rehabilitation of disused pastureland wells and for the construction of new wells. This is in addition to major recurrent expenditure

on vaccines and medicines for the control of animal diseases, seen as an essential government function (Rural Sector Strategy and Business Plan, 2006).

In terms of direct government support for investment in agriculture, the main expenditure programmes are related to supplementary funding of irrigation; these are implemented by the private sector (roughly 8 million USD). This support relates directly to the widely-held position that the future of agriculture in Mongolia, particularly in terms of providing food for the urban consumers, will lie in the development of irrigated farms. The vision is that many such farms will incorporate both crop and livestock activities and that livestock production will become increasingly intensive (Mongolian economy, 2013).

Today the Mongolian agriculture sector has four subsectors: *Extensive livestock*; which is the traditional semi-nomadic pastoral system, where camels, horses, cattle, sheep and goats are grazed together; *intensive livestock*, with housed dairy cattle, pigs and poultry; *mechanized large-area crop production* of cereals and fodder crops; *Intensive farming*, producing potatoes and other vegetables, with both mechanized and simple production methods. Today, the labour force in the agriculture sector is estimated at 390,000, of which 15% are employed in crop production and 85% in livestock sector (Priess et al., 2011).

As for plant production, the main crops produced by Mongolia are wheat and potatoes, which create, together with the meat and dairy products, 100% of the supply of daily consumption. Because of Mongolia's harsh climate, the agriculture sector remains heavily focused on nomadic animal husbandry. The principle issues for Mongolian agriculture are its low productivity and insufficient financial input. (ADB, 2013).

Assessment of the labour market

The most significant employment sector in Mongolia is agriculture, comprising 49%, followed by industry 12% and education 5%. Other sectors with relatively high employability are transportation, health and construction (International Monetary Fund, 2000). Because of the migration of particularly young people from rural to urban areas, the number of people working in the agricultural sector has decreased. As to gender participation, in 2000 there were 50.6% of the male population and 46.5% of the female population working in the agricultural sector. 12 years later, there were only 33% of males and 32% of females (Trading Economics, 2015).

The unemployment rate in Mongolia decreased to 7.40 percent in the first quarter of 2015 from 7.70 percent in the fourth quarter of 2014. Unemployment in Mongolia averaged 6.08 percent from 1990 until 2015, reaching an all time high of 10.30 percent in the first quarter of 2012 and a record low of 2.80 percent in the fourth quarter of 2007 (Trading Economics, 2015).

Because of the migration of elements of the Mongolian population from rural to urban areas, there is an increasing scarcity of employees willing to work in agriculture. Therefore, there would be an advantage in establishing new jobs in rural areas which would also help to mitigate urbanization. There are several organizations providing extension services for farmers and cooperatives in Mongolia. The most significant is the National Agricultural Extension Center that provides practical knowledge to farmers and herders. NG0´s and the public are also involved. It was found that farmers and cooperatives are interested in participating in extension services such as education programmes or receiving study materials, however, due to the geographical nature of Mongolia, it is difficult to spread information among farmers (Fellman, 2015). There are significant indicators of a lack of suitably-trained workers to fill available vacancies. Forecasts of future demand for labour suggest that the next 10 years will increasingly favour highly skilled professionals.

One reason for the poor supply of sufficient labour to meet the demand is the low quality of graduates and/or graduates with professions which are in low demand (Mongolian Economy, 2014).

Higher Education

Education in Mongolia is administrated by the Ministry of Education, Culture, and Science which sets policy and oversees standards. Primary school usually starts at the age of six with a duration of five grades. Secondary school is divided into two cycles: lower secondary consists of grades 6 - 9, and upper secondary consists of grades 10 - 11. Primary and lower secondary education is compulsory (EPDC, 2015). The literacy rate is currently 97.4% and the number of students and teaching staff is increasing. The most significant fields of study are technology, science and economics (UNESCO, 2013). Geographic access to education is about 90-96% for lower secondary, and 60-70% for higher secondary education. Also access to education in urban areas is slightly better than in rural areas. For lower secondary the difference is about 2%, however for higher secondary it is almost 10%. As for gender, 65% of females and 45% of males study (Enkhiargal, 2010).

Mongolia is experiencing significant growth in enrolment in higher education. In 2013/14, Mongolian colleges and universities enrolled 174,075 students, of these 18,063 were in Masters´ programmes, while 3,304 students were doing research at a PhD level. In 2013, there were 178 colleges and universities in Mongolia, however only 48 of them were public. The amount of students at public schools was still three times higher than at private schools. Under Communist rule all higher education was provided free of charge. Since the early 90s, fees have been introduced, though the government offers grants and scholarships (Mijid, 2003).

The Ministry of Education, Culture, and Science, with the cooperation of NGOs has implemented non-formal distance education programmes promoting the development of basic skills. Nowadays, about 100,000 Mongolian adults benefit from some form of distance education. This system of education is suitable for nomads who could have problems attending school due to their migratory lifestyle. These programmes usually use radio communication and are focused mainly on rural areas. Core subjects include nutrition, first aid, wool production and home economics (Rosario, 2005).

There is still a huge gap between Mongolian educational needs and the policies that the Mongolian government has implemented in response to the expansion of higher education. Education is not sufficient in quality to achieve levels of international competitiveness and there is a mismatch between the demand and supply of education. There are also differences in the accessibility of education in rural versus urban areas and between the poor and the rich (ICEF, 2014).

Methodology

To reach our specific objectives, the survey was conducted using the methodology explained in the ASK Asia Erasmus Mundus Alumni Employability Study. The research data were collected via the following: an online questionnaire distributed to EM alumni, semi-structured interviews conducted with key employers and informants in agriculture who employed EM alumni and focus group discussions facilitated during the national and regional workshops.

The total number of respondents who completed the survey was 15 with different ages and education levels. All of the students who replied to the online questionnaire were students of agricultural universities. Contact with the particular institutions that employ EM graduates was obtained through the online questionnaire. Five interviews were conducted with four key employers of nine participants and informants in the public and private sector, selected on the basis of the online survey. This survey was performed via telephone, email, and face-to face meetings in the period of June 30 to September 22, 2014. The unanswered surveys arose due to people studying at a post-graduate level in a foreign country, being self-employed, and giving no response after all.

Interviews with organizations that employ EM graduates were performed based on the contacts obtained through the online questionnaire among students. Interviews were conducted with key employers and informants in the government and in business enterprises. Due to the small number of Mongolian alumni participating in the EM programme, in total only five interviews were conducted with four key employers in the public (university, research institute, and government organization) and private sectors. The survey was conducted via phone, online, and in person. Unanswered questionnaires were due to the fact that alumni had not finished the programme, became self-employed or refused to respond.

As a follow up to the previous data collection, a national workshop was organized in Ulaanbaatar, Mongolia on 15 October, 2014. In total 27 participants contributed to the discussion, including 14 representatives of four employers (HEI, research institutes, state organizations and the private sector), ten alumni and three representatives of European universities. During the workshop, preliminary results on the employers' opinions and the alumnus survey were presented. Key issues raised by employers and alumni were then discussed.

Finally, lessons learnt from each country and final conclusions were discussed during the regional conference that was facilitated in Phuket, Thailand on February 2-4, 2015. The regional workshop hosted 25 representatives of European and Asian universities and consultants involved in the research process.

The Experience of Erasmus Mundus Alumni

In this chapter results from the survey of alumni are represented, including general demographic information about the respondents, their study background, professional experience and skills gained throughout the programme and, last but not least, the current employment situation of EM alumni in the field of agriculture and related life-sciences.

Characteristics of sampled alumni

The age range of the alumni was quite wide, reaching from 20 to over 36. The two biggest age groups represented were: “36 or over” and “26-30”. The results show that Mongolian alumni left mainly to do Masters' studies - 54%, followed by Bachelor's studies (20%). At Doctoral and Post Doctoral levels, 13% of alumni participated in each. Masters' studies were financed mainly for one year or for the full period of two years. This confirms the expectation of studying for a full programme in the EU. Bachelor’s studies were covered for half a year or for one full year. The studies were financed mainly through Eurasia projects, 53% through Eurasia 1 and 33% through Eurasia 2.

True to expectation, 93 % of alumni came from urban parts of Mongolia. This offered them easier access to education and in turn is an indicator of a strong urbanization process in Mongolia. Gender distribution in the EM programmes was quite balanced; 53 % of the alumni were male, the rest female.

Half of the alumni chose two countries for their EM programme. The most frequently visited country was Poland, with 29 % of alumni. Poland seems to be a popular destination because of the high level of education, economical conditions and the study programmes offered. Poland was followed by the Czech Republic, with 24% of alumni, where the reasons also were economic as well as the fact that study programmes are offered in English and are focused on developing countries. The main reason for the choice of country was the offer of a particular university by home university.

EM alumni could have chosen from a range of fields of study at the partner universities. The majority of alumni studied agricultural economics (27%) due to the importance and usability of this field in Mongolia. The second most popular choice was animal science at 13%. Apart from these two, the other most preferred fields of study were biotechnology, rural development and water management. Only one third of all respondents chose another field of study, mainly agricultural economics, international economic development and environmental economics, each with the same amount of alumni.

Reasons for choosing a particular university were also identified. The biggest group of alumni chose the university because of an offer from their own university (33%), followed by the offers of study programmes at the selected universities (27%) and due to research activities of the specific universities (20%). The rest of the alumni chose the university due to its ranking, based on recommendations from schoolmates/a tutor/a friend or due to specific working groups/teachers/tutors.

Alumni with no previous experience in the EU decided to participate in the programme due to the opportunity of studying and living there. All respondents returned home right after the programme was terminated. Erasmus Mundus alumni came to new countries far away from their homes with different cultures, mentalities and habits. Integration into the new society was very good, in a few cases they experienced minor problems caused by the language barrier and cultural differences.

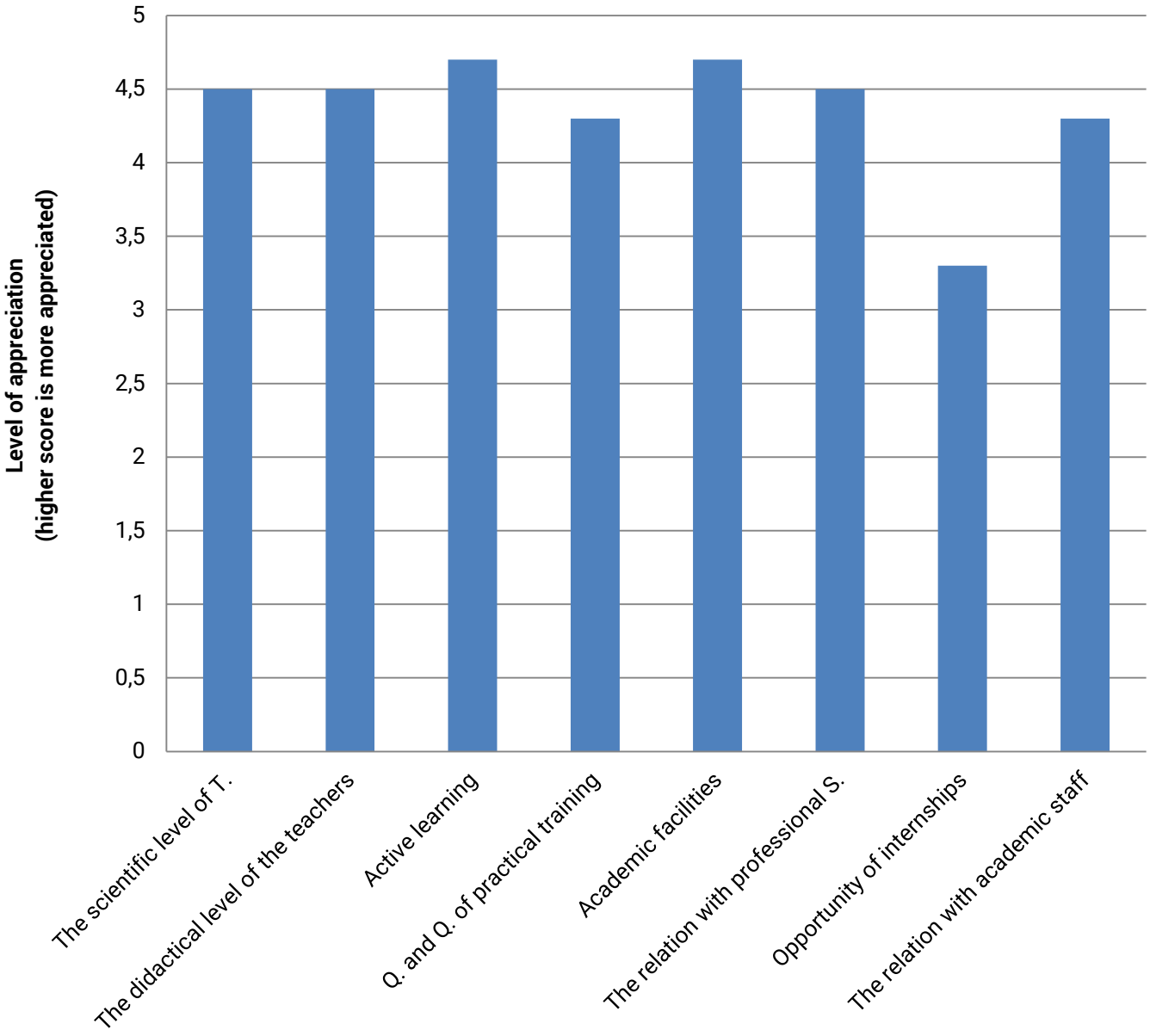
Knowledge and professional skills of graduates

The overall performance and integration of alumni could be influenced by previous experiences from abroad. In fact, 40% of alumni already had experience staying abroad. Two thirds of these spent more than one year in a foreign country, the rest less than one year. Half of them had experience in a European country, the rest in China, Korea and Thailand. Moreover, 60% of the alumni had professional experience before the EM programme, in particular internships and student and volunteer jobs.

EM alumni were asked to evaluate what skills and competences they developed during their stay in the EU. The skill most developed by students was interaction with other people, followed by: increasing responsibility, oral and written communication, self-confidence, independence, time management, the capacity to work in a team, the capacity to adapt to new situations, planning and organisation, the ability to make their way and finally the capacity to learn. The least developed skill was computer skills. This may be taken to show that Mongolian students were accustomed to using computers in the local university. Language skills were developed at a high level; 87% of alumni improved their English during their stay in the EU. Other language improvements were negligible, with the exception of German - improved by 13% of alumni.

Valuation of European teaching and learning was very positive. Students evaluated their satisfaction on a scale from 1 to 5, where 5 was the best. With a score nearing 5, relations with academic staff and active learning were highly ranked, followed by the scientific level of the teachers, the didactic level of the teachers and relations with the professional sector, can be seen in the following figure.

Figure 1 Appreciation of the European teaching and learning by alumni



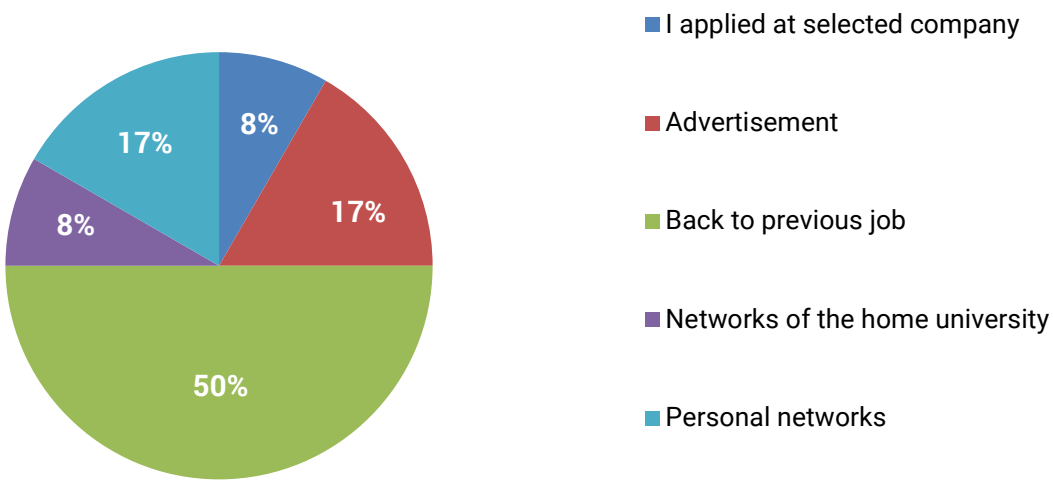
Source Online survey on the experience of alumni with the EM programme

The only indicator lagging behind in the ranking, reaching a score 3.3, was the opportunity to do an internship offered by the hosting university. The lack of internships on offer was the reason that only 40% of the alumni gained some experience outside of the university. More attention should be paid to training and internships being offered to students so that they can gain more practical skills and experience for their future jobs.

Employment

60% of the alumni had a job before moving to the EU and thus the mobility was intended to increase their already-existing competences and qualifications. At the time of the research, 80% of alumni were working. Alumni who were already working before the EM programme mostly remained working in the same job (67% of those with work experience before). Alumni who were, at the time of data collection, unemployed were searching for a job (67%); only one was on maternity leave. The alumni who were unemployed were searching for a job for a period between three months and over one year. There were many ways of how to apply for a job. Mongolian alumni mainly look for jobs through advertisements in different types of media (newspapers, the internet, etc.) and the use of personal networks is also very common. Half of the alumni went back to their previous job or applied at a selected company. How alumni found their jobs is shown in the figure below.

Figure 2 How the alumni found a job



Source Online survey on the experience of alumni with the EM programme

The majority of the currently working alumni (83%) were working in the public sector, mainly in ministries, universities and national agencies. This fact could be the reason for governmental support of mobilities, as they get highly skilled public servants with wide-ranging foreign experience to help the country with its development. The private sector does not have such a strong position with regards to the employment of alumni with European experience.

For a summary of the experiences of alumni, a cluster analysis was implemented and the alumni were divided into three clusters.

Cluster I

Cluster number one represents a group of alumni who were working before EM and already had some working experience before the EM programme. These alumni were currently working in the same company/institution as before. All these alumni were employed in the public sector, predominantly in universities and their jobs were arranged before their return from the EU. This fact explains the effort of the institution to improve the quality of their own employees. These alumni belonged to the age group "36 and over" except for one from the age group 26-30. This category consisted of Post Doctoral, Masters' and Doctoral students who studied in the EU from half a year to two full years.

The following figure represents selected findings of alumni as to satisfaction with their position on the labour market:

+ Pros	- Cons
Studies are applied in practise Job corresponds to the field of study or very similar Training obtained during the studies Ability to convert knowledge and experience into practice in the home country Research skills	None identified in this cluster

What do they consider to be the most important factor influencing their employability?

Experience of a foreign culture
Capacity to work with a team, networking
Language skills
Responsibility
Creativity
Capacity to adapt to a new situation
Good written and oral communication
A Degree from Europe

Cluster II

The second cluster represents a group of alumni who were working before EM and obtained some work experience before the programme. Alumni from this second cluster are currently working in different organizations than before, but in the same sector, a majority in the public sector. They spent two years in the EU and completed a Master's degree. These alumni belong to the age group 26-30 and 36 or over. They chose a particular university due to the suggestion being made by their university and the offer of the study programme.

+ Pros	- Cons
Ability to learn new things in the multicultural environment	Longer time of job search
Research skills	
Knowledge and use of economics	
Benefit from work on national and international projects and relations	

What do they consider to be the most important factor influencing their employability?
Educational level and experience
Interaction with other people and cultures
Academic background and a degree from Europe
Decision making
Language skills

Cluster III

The third cluster represents the alumni without any working experience before the EM programme. This group consists of 40% of alumni. Representatives of this cluster belong to the age groups from 20-25 to 31-35. Alumni from this cluster studied mainly for a Bachelor's or Master's degree and took the mobility from a half a year to two years. Half of this group is currently working, the unemployment rate in this cluster is high, possibly due to a lack of previous work experience.

+ Pros	- Cons
Ability to develop communication skills and time management	Unemployment
Cultural exchange	
Contribution to higher education development	
Research and work related skills	

What do they consider to be the most important factor influencing their employability?

Independence

Capacity to adapt to new situations

Capacity to learn

Self-confidence

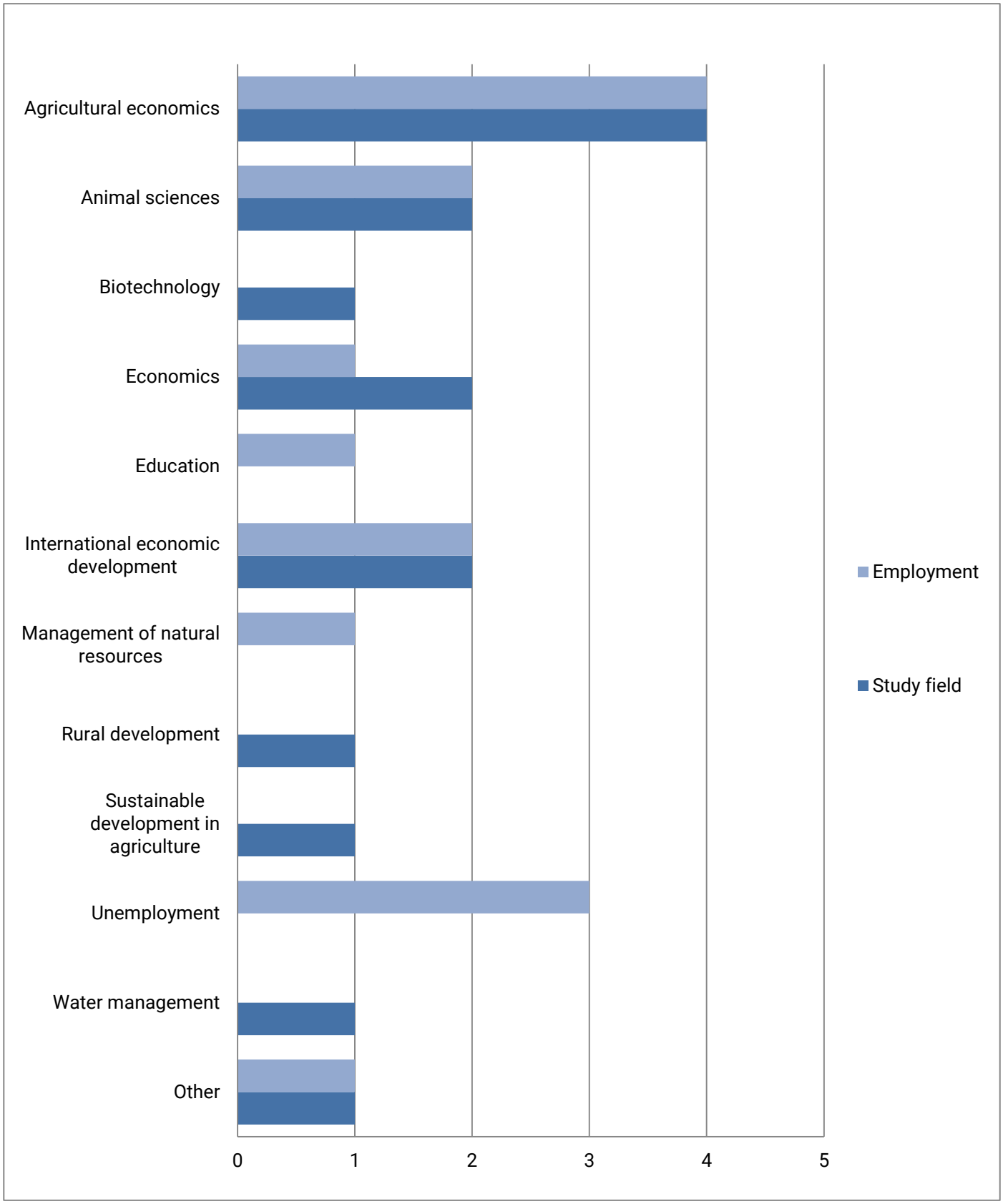
A Diploma from Europe

Language skills

Experiences

Various kinds of employment and fields of study in the area of agriculture and related life-sciences were cited. The majority of the alumni found a job in a field related to their studies. Only a few exceptions chose a different one, as is shown in the figure below.

Figure 3 Fields of study and current employment of alumni



Source Online survey on experience of alumni with the EM programme

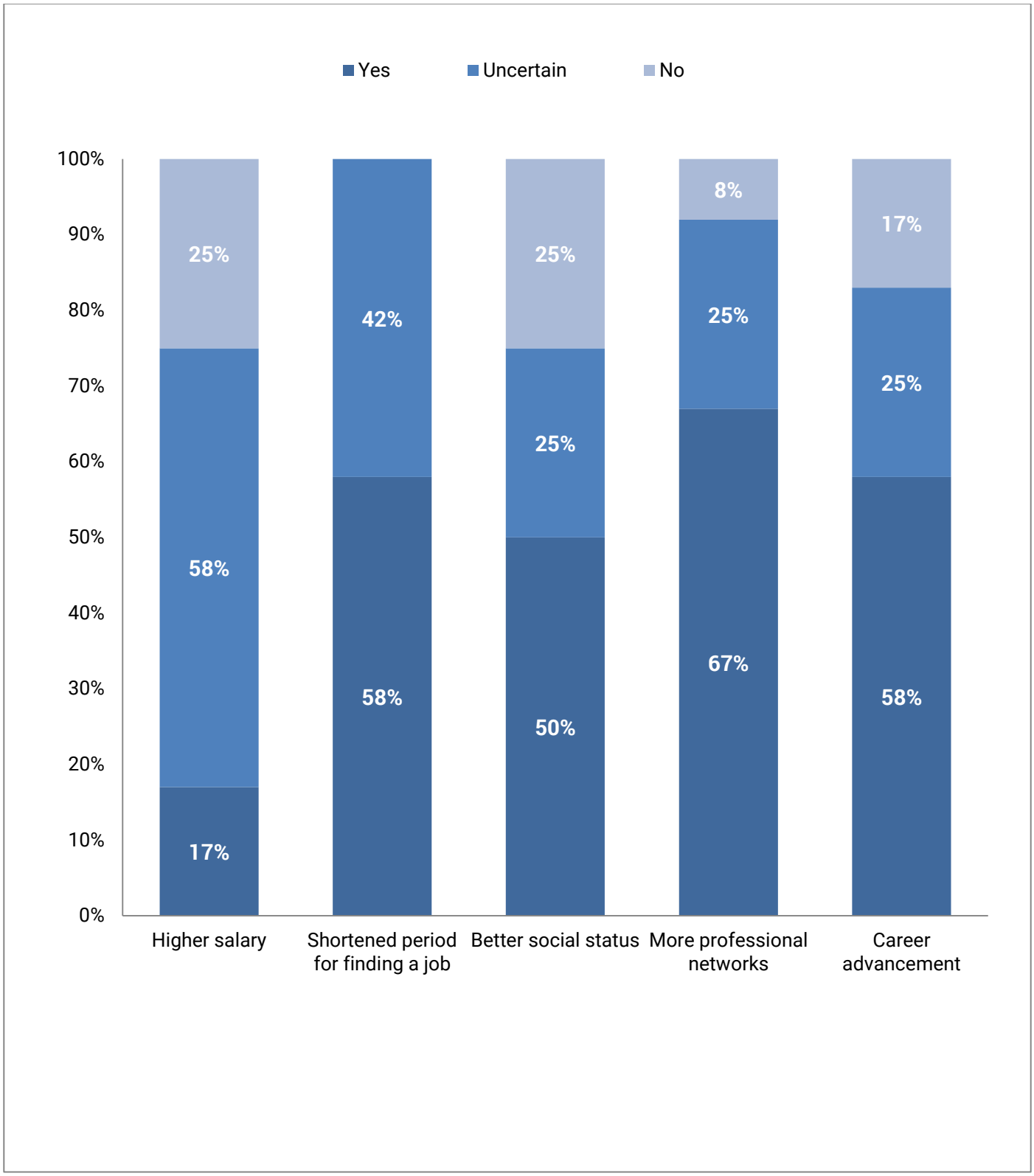
The biggest group of alumni consisted of 25% of those employed, who worked as academically qualified employees with a management function. In second place, 17% each were: research assistants, academically qualified employees without a management function and qualified employees. Only one respondent each were: public servants at a lower/middle level, public servants at an upper level, and self-employed.

Alumni worked in various institutions and companies. Employers required different work skills and competences. Various activities were implemented every day in Mongolian institutions. According to the survey of alumni, the most important skills required in jobs were: responsibility, planning and organisation, oral and written communication, languages skills, research skills, the capacity for applying knowledge in practice and the capacity for analysis and synthesis. The least required skill was interaction with other people and cultures, which suggests a lack of any international environment in the work place.

The perception of alumni of their position on the labour market

How competitive alumni are on the labour market is influenced also by the level of confidence they have in themselves. Do they feel that they have an advantage in comparison with home (Mongolian) university graduates who didn't have an opportunity to study in a foreigner country? The graph bellow shows the perceived advantages of EM alumni.

Figure 4 Advantages of EM alumni



Source Online survey on the experience of alumni with the EM programme

Many students thought the EM programme a significant opportunity and help in the future progress of their careers. Development was noted in their work and living conditions. They also felt that the development of their competences helped their position on the labour market. The professional network that was created during the mobility was strongly felt to be an advantage after the Erasmus Mundus programme. A shorter period of job search was returned by more than half but with some doubts, as the rest of the alumni were uncertain about this. Alumni were deeply uncertain as to whether their participation in the EM programme ensured them a higher salary. Half of working alumni agreed that better social status was attained and that this was an advantage of the programme.

Satisfaction with their position on the labour market was very positive, most of them learnt new things at work and had improved their performance. Many alumni appreciated the contacts from their study period and new opportunities were open to them.

There were several factors which could be important and influence the employability of alumni, variously in the public and private sector. Some of the most important and common reasons of higher employability were due to: their responsibility, professional skills from Europe, study abroad, communication and English skills (important for international business and communication with the rest of the world). These factors make alumni better off in the local job market. A majority of the alumni believe that a Degree obtained in the EU gave them a better start and more opportunities. The experience and knowledge gained in the EU were used by alumni very often in their daily working life and they very much appreciated the high educational level they reached in the EU.

Employers‘ perception of the employability of EM alumni

This section ilustrates the results of the employers‘ survey: how the employers perceive the situation on the labour market, the demands of the job market in Mongolia, and developments in the agricultural sector. As part of the implementation of this research interviews were conducted with four key employers employing EM alumni. Moreover, the recruitment process and requirements for skills on the labour market are explained.

Changes in the agricultural sector and a characterization of the job market

As a result of the large-scale privatization process that began in the early 1990s, almost all state-owned livestock has been transferred to herders, encouraging a rapid increase in the number of herders. Currently, the trend is in developing animal husbandry while enhancing economic benefits through developing the export of livestock products. Steps are being implemented to establish farms that are qualified to global standards and stay free of infectious animal diseases.

There is the new tendency in the agricultural field to move from traditional agriculture to intensive and more industrialized forms. The objective is to supply domestic demand in full, to increase exports, to equip the sector with advanced techniques and technologies and to introduces new sorts of wheat, fruit and vegetables to increase the variety of crops produced.

Every year the government makes a list of the most needed occupations and jobs. Currently, the most needed workforce is in agronomy and fisheries. Intensive agriculture requires outstanding specialists who have competitive scientific knowledge and professional skills and who have studied precise professions.

Visible impact of international donors

In the last 10 years, over 100 projects and programmes have been and are being implemented by international organizations and foreign donors, providing development cooperation and loans in the food and agriculture sector in Mongolia. These have played an important role in overcoming the difficulties related to Mongolia’s transition from a centralized economy to a market economy. Most of projects run activities mainly concentrating on improving the livelihoods of herders, the rural population and sustainable development. The highest levels of funding come from Japan, followed by the Asian Development Bank, the

World Bank, IFAD, the FAO, the UNDP with some aid coming from the Netherlands, France, South Korea, Switzerland, the Republic of China, Canada, Egypt, Israel, the EU, the Russian Federation, the Czech Republic and so on.

Supply of people with agricultural specializations and new job positions

The MULS is the only higher education institution in Mongolia that plays an important role in producing qualified human resources to supply the agricultural sector with specialists. Nowadays, there are many job opportunities available for graduates in agriculture and related fields, to work in public or private institutions, as well as in international and local NGOs. As mentioned by the employers, the reason for a discrepancy in the supply of alumni to the labour market is due to the fact that most of the graduates in agriculture do not work in their chosen profession and thus demand exceeds supply.

Unfortunately, most of graduates prefer to work in a city rather than working in the provinces, because the city provides various work opportunities and overall living conditions are better. Therefore, the Mongolian University of Life Sciences, the Ministry of Food and Agriculture and related research institutions in Mongolia had discussions about the level of graduates' knowledge and skills, with a view to upgrading the curricula and to develop human resources as currently demanded. Main tasks were to supply the specialist skills required by the employers and to minimize the outflow of graduates with specific knowledge from the sector.

As part of the current intensification of production in the agricultural sector, a variety of new jobs are being created that require outstanding specialists who have competitive scientific knowledge, professional skills, and foreign language abilities. Specialists who can run agricultural and livestock farms with advanced techniques and technologies are needed. Thus, HEIs intend to update the design of curricula to meet the demands of employers in the agricultural sector and focus on specialization in practice.

Recruitment processes

Vacancy announcements were mostly published through web pages and newspapers to attract a wider pool of talent. In some cases, vacancies were publicized via TV channels and professional networks. However, recruitment processes differed according to the type of organization.

In private organizations, in order to find qualified and competent candidates, the job vacancy was usually announced through professional networks on the website http://biznetwork.mn/jobs and in newspaper advertisements. The university and research organizations announced them publicly within the campus on

the information boards of the institution and via its website or in daily newspapers such as *The Daily News, Century's News* and *Today*. Contrarily, in state institutions, the recruitment process was performed by the Civil service council of Mongolia (http://csc.gov.mn/main/index.php). This is a state organization working to develop and strengthen the civil services and to build the capacity of civil servants, having a duty to provide a policy on human resource development for the civil service. In addition, this unit is responsible for the announcement of job vacancies, the taking of special professional exams and recruiting finalists requested for public organizations.

The announcement period of job vacancies depended on the position and the needs of the organization. In most cases the period of vacancy announcement for a job was two weeks in all type of organizations. Sometimes they left the announcement run for 14-21 days, even up to 30 days.

In the state organizations, selected candidates were listed on a waiting list, and in the case of open vacancies they were hired by the requesting organizations. Applications had to be received, or at least postmarked, by the closing date; late applications were not considered. Usually there were 1-5 responses for a single vacancy, depending on the popularity of the given position.

All public organizations, including universities, research organizations and state institutions required a private letter of application, written by hand, a notarized copy of ID, a notarized copy of all diplomas with a transcript of records, a form – A1 - a special form approved by the Civil service council of Mongolia which substitutes for a CV, and sometimes even a family tree covering 3 generations (own, parents' and grandparents'). These are the most frequently required documents needed for a job application. Private organizations usually require candidates to fill in their own application form prepared by the organization and additionally they ask for a copy of any language or professional certificates. Applications must be mailed or handed in to the address listed on the job announcement.

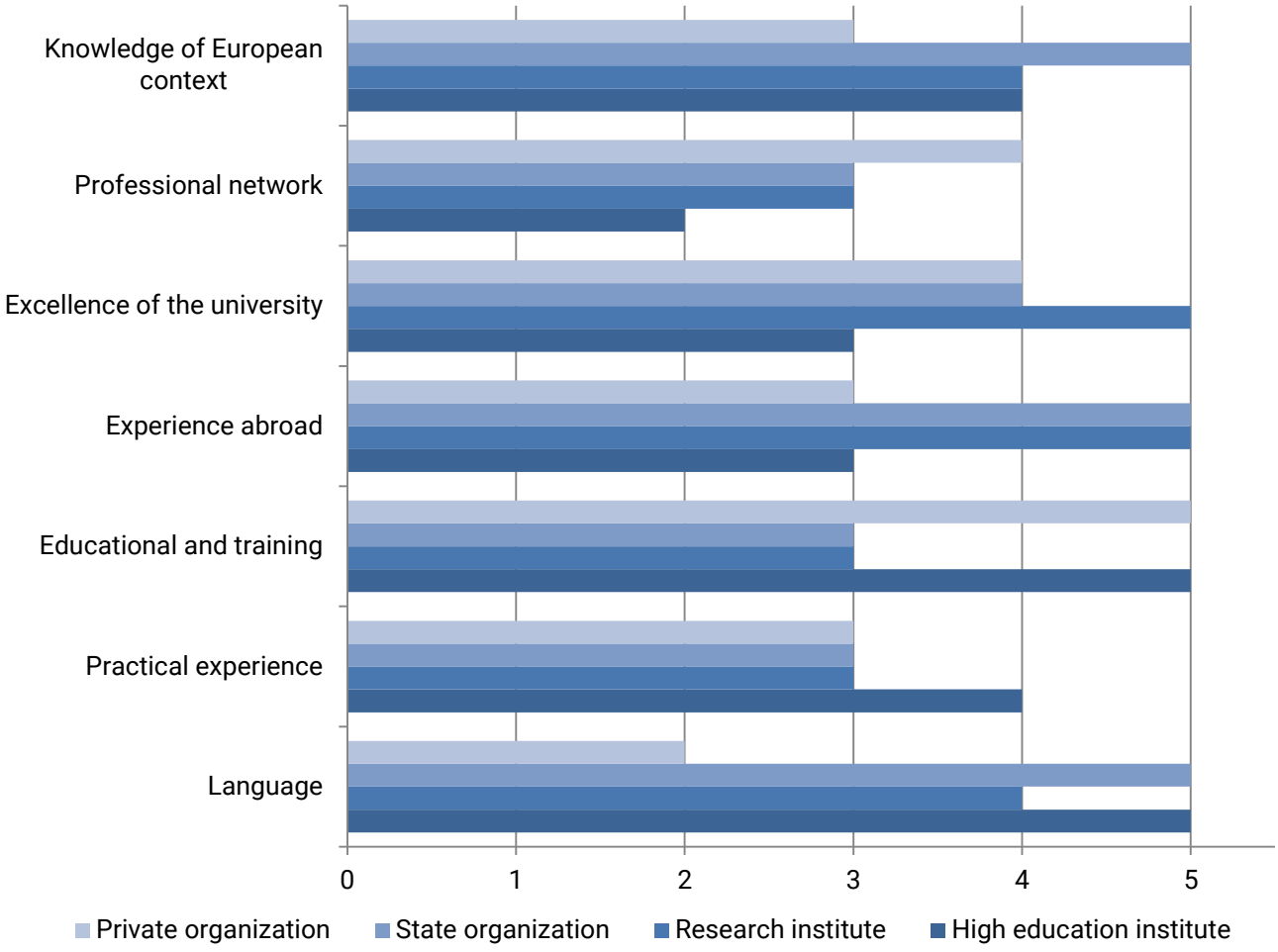
Interview panels play a proactive role in ensuring the efficiency of the available human resources, managing recruitment and the selection of competent personnel. In the private sector, recruitment is usually carried out with two-step interviews coordinated by the human resources officer and followed up or finalized by the director. At a university or research organization, a professional team or panel, consisting of the Dean and Professors, carry out interviews with selected applicants who have passed the professional written exams.

Having experience abroad is reported as being an advantage in a majority of cases (78%). The positions of international officer and manager especially require experience abroad. Working in a public organization also requires experience abroad. Most of the participants indicated that experience of the European education system is considered an advantage and is preferable to others. In the case of state organizations, it is not allowed to formally give preference to it, however, it can be the case subjectively.

The most important points in a candidate's background

Various skills and competences are evaluated in order to find the most suitable candidate to pursue a job. The employers who employed EM alumni evaluated differently which skills and competences were needed depending on the character of the activities to be carried out. The factors important in the recruitment were evaluated differently, depending on the sector. For HEI, language ability, education & training were the most important criteria. For research institutes, experience abroad and the excellence of the university were the most important points. As for private companies, education and training were the most important, while for state organizations language and experience abroad were highly valued points in the employees' backgrounds, depending on the position.

Figure 5 The most important points in a candidate's background



Source Personal interviews with employers

Remarkably, language, education, training and experience abroad were assessed by the employers as the most important points in the candidates' backgrounds. For the public sector including HEIs and research institutes, education, language and experience abroad were the most important.

Nevertheless, all employers require employees with a knowledge of a foreign language, especially English, as most public and private organizations use English in communication with foreign partners. Candidates having good English communication skills are really advantaged in getting better jobs and faster career progression.

During the Ask Asia project, the importance of predetermined skills and competences was surveyed among the target groups. The following figure shows the results of their subjective evaluation of skills and competences combined in a single graph. The evaluation was first answered by the alumni evaluating to what extent their skills developed during the EM period; secondly, how much these abilities were used in work in the view of the alumni and, thirdly, what skills and competences the employers required from their employees. A closer look at the figure below shows that the average scores given to each skill ranged from 3.6 to 5 which indicates that all of these skills were perceived by the interviewed employers and alumni as important and needed.

Figure 6 Comparison of skills and competences developed and demanded

Source Online survey on experience of alumni with the EM programme; Personal interviews with employers

Alumni were assigned to perform a variety of duties in their jobs, depending on the given position. According to alumni, responsibility (scoring the highest possible grade of 5) was the most important competence required for success in a range of positions. Oral and written communication (scoring 4.8) were also important skills for job performance. In order to get a better job, employees needed to have the capacity to generate new ideas and to be creative, be able to apply knowledge in practice, do analysis and synthesis, be able to conduct research, have sufficient language skills and to have technical know-how. On the other hand, an ability for interaction with different people (scoring 3.9) was not considered very important in the professional environment. From the employers´ perspective, time management, research skills, responsibility, a capacity for analysis and synthesis and the capacity to apply knowledge in practice were given top ranking n terms of importance. These findings indicate that soft skills and personal qualities are the most needed and valued. Furthermore, critical thinking, planning and organization, problem solving

and independence were valued in job seekers on the professional market. In addition, the current working environment requires people to work together and bring their own skills and knowledge into efficient use. Skills and competences like interaction with other people and cultures and the capacity to work in a team allow people to interact with each other and influence each others´ attitudes. On the other hand, the capacity to adapt to new situations is considered the least important. If we look at the results combined in the graph above, according to the survey, responsibility is considered the most important skill by both employers and employees.

Demand for people with this specialization, missing skills among the candidates

A majority of EM alumni studied in economics-related fields or business. This field of expertise is becoming important for a better understanding of the changing global economy. All employers answered that there is a demand for people with this specialization. Apart from this field of study, other areas such as biotechnology, animal sciences, ecology, engineering and renewable technology were very important fields of study at the level of higher education in Mongolia.

Practical experience or the capacity to apply knowledge in practice seems to have been a crucial point in the candidates´ backgrounds during the recruitment process, since all employers indicated that practical skills in the execution of designated work were the main thing wanting in alumni. They need skilled workers with practical experience. Thus, job seekers have to prove that they not only know the theory, but that they are able to work in real situations.

Advantages of EM graduates in comparison with local graduates

Usually, most employers in the public and private sectors do not strongly differentiate between alumni whether they graduated in the USA, Europe, Asia, or at home institutions. However, studying abroad has a big impact on graduates' capabilities. They perform better due to the skills and competences they built up during their study abroad. Overseas education can be an advantage due to the development of the ability to think freely and analyze, to communicate with others, and to adapt easily to new environments compared to local graduates.

Employers generally perceive the EM alumni as advantaged compared to graduates from local HEIs. After graduation abroad alumni are found to be more active, more motivated in what they are doing, and their technical know-how and professional skills have improved. Employers said that EM alumni have better English than local graduates because a majority of scholarship programmes were provided in English, their research and analytical skills were upgraded and their ability to compare and do analysis improved. These

skills and competences built up in the individuals made a large contribution to carrying out their work duties and could even bring changes to the existing job structure. However, all employers expressed the idea that although studying in foreign countries was an advantage in many ways, obtaining an education in the home country was beneficial for an understanding of the local culture, traditional knowledge, familiarity in work practices and creating a professional network.

The procedure for determining the average salary is approved by the central governmental institution responsible for national labour considering the recommendation of the national organization that protects employer´s and employee´s rights. The basic salary of staff at state-owned enterprises is determined by applying the governmental payroll, while in private companies the basic salary of employees is established under collective labour agreements between employers and workers.

In terms of salary, candidates with European education and skills may ask for a higher salary than local graduates. However, this is only given to them based on the results of their work. The salary is regulated by the state salary system with grades, fixed and approved by the Government and valid throughout the public sector. The salary of civil servants (public employees) consists of a payroll salary based on the position one holds and an additional payment for doctoral and professional degrees, skills and responsibilities at work. Those who have a high-level of responsibility and special skills needed for that position are typically paid better than the average employees. There might be a greater likelihood of career promotion for candidates who obtained training in European universities, as noted by all employers.

Outcomes from the national workshop

The national workshop was organized in Mongolia, at which the preliminary results of the research were presented. It was a platform for facilitating focus group discussions. In this chapter the most important points of those discussions are summarised.

The views of the Alumni

This section highlights the main competencies acquired in the process of studying abroad and some insights from graduates regarding their subjective perceptions of the quality of European education.

Alumni significantly appreciated the method of teaching and learning at European universities. During their studies, their general skills, scientific knowledge and research skills improved. The result from our discussions showed that during their studies, alumni mastered English skills, learned how to work in a team and acquired new teaching methods. They believed that the significance of a diploma from a European country helped them to get a job in a shorter period, even in the private sector. It was a big investment for their professional lives. However, opportunities for an internship were lacking as explained by the majority of participants in the discussion; or internships did not fully match the requirements of the host university. One of the cases is expressed in the following testimony: "I am very grateful for this opportunity. It has changed my professional life and career. Before the programme I was a teacher. Unfortunately I had no internship opportunity besides going to Mongolia during the summer to conduct research for my dissertation thesis. Currently I am continuing on my Ph.D. research in Germany and I was lucky to be employed by an international organization in Mongolia."

Results nontheless showed career progression for individuals thanks to participation in the programme. Moreover, the creation of a professional network and the acquisition of knowledge in research methodology provided them with an opportunity to work on different research projects. The following testimony explains the progress attained by some respondents: "I studied in the field of economics, unfortunately no internship was offered to me. Before, I was working as a specialist, after the programme I started working as a policy maker in an economic policy department. My position improved a lot."

Employers' perceptions

During the workshop, all employers expressed the opinion that EM alumni obtained international experience, improved their English language ability, created new contacts and built horizontal skills that are

important for developing their professional profile. Through these individuals it was possible to build the capacity of local skilled labour. According to one testimony: "the most appreciated competences are international experience and English, which are important for international cooperation and daily work. They are necessary for communications with international partners. The advantages of studying abroad are: gaining the ability to manage time and express him/herself better then local graduates." This was agreed by representatives of both public and private institutions.

The positive influence of the European style of study on the attitudes and skills of alumni was noted by representatives of the academic sector. Many Erasmus Mundus alumni from Mongolia were already working in the academic field. An advantage was that they learnt new research methodologies and obtained new skills for analysis and synthesis. They were skilled in teaching and had fluency in English, which is important for international activities and advantageous for the application of the Bologna standards, which had been introduced to the universities in Mongolia. Besides, the approach to teaching adopted by EM alumni was very different compared to that of local graduates and teachers. They work in teams and use participatory and discussion approaches during the work with students. European universities are more open to discussion and teach students how to express themselves. In Europe students learn more about coping with professional life, not only the content of lectures and they have more experience of making individual choices. The universities also prefer to hire employees with European experience because the EU academic system is standardized and more familiar.

Results from the focus group discussions showed that international experience is definitely an advantage during job search. However, local expertise is also important due to familiarity with the constant changes in the country.

Implications and outlok

Most of the employers wished to employ graduates from a foreign country as long as they had built up their horizontal skills such as independence in work, responsibility, self-confidence, thinking in an innovative way and language skills, which leaves them more advantaged than those who did not study abroad. According to the employers, there is a high demand for skilled and competent human resources in Mongolia.

Nowadays, in Mongolia there are many graduates from foreign countries, especially from South Korea, Japan, China, the USA and Australia. Graduates coming back from foreign countries show better results in their jobs, compared to alumni without any international experience and thus have a good chance of advancing their career. However, mobilities focus mainly on financing, accounting, management and mining, while agricultural fields have a very important role in the labour market due to their greater impact in the economy. Many EM alumni feel that participation in the EM programme helped them develop their competences, become competitive and advance their careers. However, there was no immediate career progression or higher salary provided. These come about based on their work performance.

As the agricultural sector of Mongolia is developing towards becoming more integrated and intensified, new positions are opening up, which need specialists capable of developing agriculture in competitive agri-businesses by a process of innovation in all aspects of sustainable development.

After study in the EU, some alumni got their desired job or returned to the same organisation and engaged in the same sector prior to the EM programme. Indeed, this fact shows that experience in European universities is highly valuable and significantly contributes to capacity building, particularly in state institutions. The “Brain drain” is avoided by signing a mutual agreement between alumni and employers, who covers their social insurance during their absence. The sending institution pays attention and focuses carefully on the proper selection of candidates to ensure that the capacities and skills built during the mobility can be transformed to the benefit of the sending institution.

Recommendations for EM programmes

Today, the young in Mongolia still prefer to study in South Korea, Japan, China, the USA or Australia, due to the fact that information about studying in European countries with scholarships is neither widely spread nor well – known. Moreover, there are representative offices located in the country, providing information on universities in those countries. Only academic institutions with established cooperation with certain European institutions provide information on EU higher education but the audience for this is very limited. Therefore, more efforts are needed to spread information about European higher education. The

opportunity to study in the EU would give Mongolian youth more advantages in obtaining skills and knowledge.

The EM programme is a relatively well-known mobility. The reason for the low number of applicants is due to the fact that the application process is complex and sometimes candidates lack the courage to apply for scholarships. the information about available study programmes is not always easily accessible nor listed on webpages. The EM programmes require a high level of English, which is not easily available due to its cost. Therefore in order to promote EU higher education as a public good, the following recommendations are offered:

- Within the scholarship programme, an intensive English preparatory course should be included to meet the English language requirements at host institutions. In Mongolia, the youth finish high school, where English is regularly taught, and candidates are often involved in various long-term training courses in English before EM programmes. Thus, candidates for the EM mobility from Mongolia can generally communicate in English at least at an intermediate level.

- Since the EM programme is directed to introduce the European standard of education to Asian countries, short-term mobility programmes for management staff and post-doctoral staff should focus on developing and building up research capacities and new didactic approaches.

- Especially for Mongolia, Post-Docs and scholars should be motivated to participate in mobilities; this is a very important step in gaining more experience from European universities to Mongolia.

- Most training is directed towards economics and management. It is very important for Mongolia to provide more training in fields of study such as life sciences, environment, ecology, technology and engineering, animal sciences and biotechnology.

- In order to increase students´ mobility, it would be an option that more students should start their study abroad with a short-term internship, in order to get enough self-confidence and intercultural competences to stay and study abroad afterwards.

- In order for the students to get higher skills and competences, it is important for mandatory internships to be included in the curricula (in the survey, 73% of students had a mandatory internship which they spent abroad).

- Due to the absence of some European embassies, visa applications take a long time, either submitted via special (often untrustworthy) agencies, or going to neighbouring countries which requires extra payment and effort.

- Many Mongolian youths study in HEI in foreign countries, such as Russia, China, Korea or the EU. In the case of studying through the EM mobility this requires a Bachelor's Degree before the start of mobility, which must be seen to by the candidates themselves. However, this process takes time and creates its own difficulties.

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