



**MADINA  
ARTYKBAYEVA**

**CAZAQUISTÃO – UM ESTUDO QUALITATIVO  
SOBRE INOVAÇÃO**

**KAZAKHSTAN – A QUALITATIVE STUDY ON  
INNOVATION**



**Universidade de Aveiro**  
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Departamento de Economia, Gestão, Engenharia  
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Dissertação apresentada à Universidade de Aveiro para cumprimento dos requisitos necessários à obtenção do grau de Mestre em Gestão, realizada sob a orientação científica do Doutor Manuel Au-Yong Oliveira, Professor Auxiliar do Departamento de Economia, Gestão, Engenharia Industrial e Turismo da Universidade de Aveiro



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**palavras-chave**

Cultura, mudança, empreendedorismo, inovação, meritocracia

**resumo**

O Cazaquistão é um país em mudança, mas que precisa de ainda mais mudança para continuar a crescer e a melhorar o nível de vida dos seus cidadãos. A competitividade das empresas depende da inovação e do empreendedorismo na sociedade. A dependência dos recursos naturais não deve durar sempre, em especial se é para se reter os mais jovens, educados nas melhores universidades mundiais, com investimento do governo, que irão querer pôr as suas ideias e formação em prática, montando empresas e ingressando no mercado de trabalho, que deverá reconhecer e dar oportunidades de desenvolvimento. O “*brain drain*” foi focado na literatura e é um risco que as sociedades atuais incorrem, inclusive o Cazaquistão e Portugal (onde a dissertação será submetida), caso não se criem condições internas favoráveis. Este estudo de cariz qualitativo contou com a participação de cidadãos do Cazaquistão e de “ex-pats” presentes e com experiência de trabalho no Cazaquistão, tendo assim enriquecido a discussão. Organizado em torno de dois artigos, nesta dissertação propõe-se um modelo e discutem-se formas de tornar o Cazaquistão mais inovador. O crescente interesse no país inclusive pelos media torna este trabalho oportuno, mas que não deixa de ser exploratório, sendo necessário mais trabalho e em maior escala para se poderem tirar mais conclusões acerca do melhor caminho a seguir por esta nação jovem e em crescimento.





**keywords**

Culture, change, entrepreneurship, innovation, meritocracy

**abstract**

Kazakhstan is a changing country, but which needs to change even more to continue growing and to improve further the quality of life of its citizens. The competitiveness of firms depends on innovation and entrepreneurship in society. The dependence on natural resources should not last forever, in particular if the younger generation is to be retained, who have been educated in the best universities worldwide, with government investment, and who will want to put their ideas in practice, setting up firms and becoming a part of the workforce, in which they will expect opportunities for development. The “brain drain” has been focused upon in the literature, and is a risk which involves current societies, including Kazakhstan and Portugal (where the dissertation is being submitted), if they are not able to create favourable domestic conditions. This qualitative study counted on the participation of Kazakhstani citizens as well as of ex-pats with living and work experience in Kazakhstan, who enriched the discussion. Organized around two articles, this dissertation proposed a model and discusses ways to make Kazakhstan more innovative. The growing interest in the country, including by the media, makes this work opportune in what still remains an exploratory effort. More research is necessary and in greater scale so that more conclusions may be arrived at concerning the way forward for this young and growing country.



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# **Cazaquistão – Um estudo qualitativo sobre inovação**

## **Kazakhstan – A qualitative study on innovation**

### **1. General introduction**

Kazakhstan borders Russia, China, Kyrgyzstan, Uzbekistan and Turkmenistan, and is a major force in Central Asia. Native Kazakhs are a mixture between Turkish and Mongol nomadic tribes. Kazakhs were united into one nation in the mid 15th century. In the second half of the 19th century Kazakhstan was conquered by Russia, and thus in 1936 Kazakhstan became a part of the Soviet Republic. Modern Kazakhstan has since obtained its independence – namely on the 16th of December, in 1991, and has been led by only one President - Nursultan Nazarbayev. It has been suggested that Kazakhstan has a strong authoritarian government, however when compared to bordering Turkmenistan, Uzbekistan and China this is not so much the case. Since independence the government of Kazakhstan has allowed foreign investment to flow into the country. The large oil and gas reserves have brought a large amount of wealth to the country, however this money has not been widely distributed. Kazakhstan is now called a middle-income nation, and is already classified with a high human development index. Corruption in Kazakhstan is seen to be high, however, and widespread, even when compared to China, but it is not as serious as in other countries in the region. Current areas being invested in include the development of a balanced national identity, the leveraging of the vast energy resources present in the country (and subsequent export to world markets), the achieving of sustainable economic growth outside the oil, gas and mining industries, as well as stronger connections with the surrounding states and other foreign nations. In Kazakhstan, people speak both Kazakh and Russian. More Kazakhs speak Russian (over 90%) than Kazakh (less than 50%). Albeit, the Kazakh language is still a significant source of pride for the Kazakh people. Most of the

youths in Kazakhstan (population under 30 years of age) speak English, and many professionals in the field of tourism and entertainment know English too. The national currency in Kazakhstan is the tenge (Kazakh: теңге, teñge, sometimes also spelled ₸) encoded KZT. The tenge – a freely floating currency on June 28, 2016 (a change to aid firm competitiveness) – had the following exchange rate:

- USD 1 = KZT 338.98
- € 1 = KZT 375.37

Prices are rising, especially for imported goods. Shopping in Kazakhstan is very popular. You can buy very cheap Chinese items as well as the most expensive famous world luxury brand goods.

The three biggest cities in Kazakhstan are:

- Almaty (ex-capital, used to be until 1998)
- Astana (current capital)
- Shymkent

Traffic in Almaty is the biggest problem with regards to air pollution.

Kazakhstan is a country full of potential, however the question is will it be able to sustain its progress and go beyond its reliance on natural resources? Can Kazakhstan be competitive, entrepreneurial, and evolve ultimately into a meritocracy? This is an exploratory qualitative case study, based on two focus groups and on two qualitative surveys, with an in-depth outlook on Kazakhstan, from a total of 36 people, including students as well as professionals in industry. Kazakhstan is a very large country, spanning from Europe to Central Asia. Much of Kazakhstan's most recent history has been dedicated to the forging of a new nation which may stand on its own, with its own identity, attractive to tourists.

This dissertation is divided into two parts. The first part is an article written after the first focus group interaction, with eight Erasmus students from Kazakhstan and in Portugal, at the University of Aveiro. The title of the article is: "The case of Kazakhstan and the challenge to reward innovation – A focus group study". After the writing of this initial article about the challenge Kazakhstan faces in the near future, more field work was undertaken – two surveys and another focus group. This study is quite unique in so far as twenty-eight of the informants are Kazakhstani and a

further eight are ex-pats with work experience in Kazakhstan who proved invaluable for the perspective they generated. For example, Kazakhstan may be similar to Turkey (with whom religion and festivals are shared), according to the first focus group informants; but also to Azerbaijan (both countries are in growth mode) and yes, to Russia – the way things are done, the way people think (in part), regulations (everything is done step-by-step, you have to follow instructions) – according to the second focus group informants. The second article written is entitled: “The case of Kazakhstan – Helping innovation find its place”. After presenting these two articles and chapters of the dissertation a general conclusion was written, to tie the research together. We hope that we may shed some light as to what Kazakhstan may require to move forward and continue its already remarkable state of progress. In doing the research we have come to even further realize what a wonderful country Kazakhstan is – including as a holiday destination and for tourism, but also for its welcoming people – who even had a Kazakhstan Day at the University of Aveiro, to show the academic community there just what the country is all about – traditions, culture, values, events – including also the local cuisine, which the students stayed up all night to cook and put on show, including a tasting session which was very well received (images 1, 2 and 3). The Rector of the University of Aveiro attended the event, with his entourage, and news items came out in the local press (please see annex I), testimony to the growing interest in the country and its cultural heritage.



Image 1 – Taken on the Kazakhstan Day at the University of Aveiro on 1<sup>st</sup> April 2016





Image 2 – Taken on the Kazakhstan Day at the University of Aveiro on 1<sup>st</sup> April 2016



Image 3 – Taken on the Kazakhstan Day at the University of Aveiro on 1<sup>st</sup> April 2016

Qualitative research is interpretivist, most notably practiced by anthropologists with ethnography (Mason, 2002). Qualitative research remains diverse and “certainly is not a unified set of techniques or philosophies, and indeed has grown out of a wide range of intellectual and disciplinary traditions” (Mason, 2002, p.2). With the

objective of shedding light on difficult topics researchers need to be flexible in the finding of ways in which to enrich the data. Such a path was followed herein.



## **2. Article 1**

**The case of Kazakhstan and the challenge to reward innovation – A  
focus group study**



# **The case of Kazakhstan and the challenge to reward innovation – A focus group study**

## **2.1 Abstract**

Following a review of literature on Kazakhstan, the authors organized a focus group interaction with eight Kazakh students, on an Erasmus Higher Education Exchange Program, in Portugal. The article discusses the results of the group interview and sets forth a model for change in Kazakhstan, to become more innovative. A number of points will need to be focused upon, to increase innovative activity in Kazakhstan – at the government level (government planning focused also on innovation, coupled to an increased investment in the younger generations' education, at the secondary school level), at the enterprise level (creation of formal performance evaluations, change to a more democratic leadership style), and at the individual level (increase in proactivity and entrepreneurial attitude, versus being too passive).

Key words: Culture, entrepreneurship, innovation, meritocracy, performance.

## **2.2 Introduction**

This is a qualitative case study, rich in description, based on a focus group interaction, with a fresh outlook on Kazakhstan, in Central Asia. Kazakhstan is a neighbour of Russia, with which it still has friendly ties (Kuzio, 2016). This study focuses on *what is necessary to make Kazakhstan more innovative?* Innovation in certain societies will require certain culture-specific practices and an innovation model is put forth, based on Kotter (1996), and including the need to set boundaries for innovation efforts. Some of the academic literature has focused on Kazakhstan, but more research is needed into how to create a meritocracy in a previous Soviet Union country, which was based on centralized planning, and not on entrepreneurial intent. Following a discussion of the focus group results we set forth a model for making Kazakhstan more innovative. This will involve a number of changes, at the government level (government planning focused also on innovation, coupled to an increased investment in the younger generations' education, at the secondary school level), the enterprise level (creation of formal performance evaluations, change to a

more democratic leadership style), and the individual level (increase in proactivity and entrepreneurial attitude, versus being too passive).

### **2.3 Background and literature review**

Kazakhstan has been independent, since 1991, when it ceased being a part of the Soviet Union, and is currently a land of opportunity. With a growing economy and rising quality of life, Kazakhstan presents itself to Europe as a potential market for a number of consumer products and services – including education, valued by a nation with brilliant literature (Lewis, 2006).

Kazakh values include: “pride in their past, nomadic traditions, love of horses, daring and bravery [...], strong tribal affinities, adventuresome, love of physical contests, respect for age, warm and hospitable to strangers” (Lewis, 2006, p.382).

Despite its very large geographic area (bordering China, it is the ninth largest country in the world, larger than Western Europe) its population is only of 17.2 million inhabitants (World Economic Forum, 2016) (meaning very low population density). Rich in natural resources for a number of industries (including also gold, silver, oil, and natural gas reserves), Kazakhstan is eager to increase its commercial relations with European countries (a small part of Kazakhstan is indeed in Europe). However, despite the potential, not many studies have yet focused on Kazakhstan – which has a history of nomadic tribes – and innovation – Kazakhstan’s ability to “mobilize knowledge and technological skills and experience to create novelty in their offerings (product/service)” (Tidd and Bessant, 2013, p.5). Although the Global Entrepreneurship Monitor covers Kazakhstan (e.g. latent entrepreneurs aged 18-64 years with entrepreneurial intention = 15%; fear of failure as a barrier to setting up a business for 24% of the 18-64 years old population; established business ownership = 7.4% of the 18-64 years of age population) (GEM Consortium, 2014), other studies about Kazakhstan’s national culture and innovation practices are lacking.

Lewis (2006, p.382) states that the “Kazakh leadership model is autocratic and hierarchical and applies to the home and family, business circles and the political sphere”. House et al. (2004) also supply a perspective of Kazakhstan, in terms of its culture and leadership practices. However, an in-depth study of its society is lacking for example in Chhokar et al. (2012), and is totally absent from Hofstede’s much

cited work (2001). Solomon and Schell (2009) also focus on a number of countries, but not on Kazakhstan.

Relying on its natural resources, Kazakhstan is not a very technology-intensive and technology-producing country. Open to North American companies such as Apple, Facebook and YouTube, Kazakhstan is modernizing and its people becoming more Westernized.

A less positive trait of Kazakhstan, as suggested by Usunier and Lee (2005), quoting Werner (2000), is that, as an ex-Soviet republic, its regulatory system may be surpassed with bribes.

Kazakhstan scores a high 4.46 (category A, or the highest of three categories) on assertiveness society practices – reflecting “beliefs as to whether people are or should be encouraged to be assertive, aggressive, and tough, or non-assertive, nonaggressive, and tender in social relationships” (Hartog, 2004, p.395); with a relatively high (category B, of four categories A-D) societal institutional collectivism practice score of 4.29 (Gelfand et al., 2004); with increasingly more prominent roles taken up by women (category A, with a score of 3.84, of three A-C categories, for gender egalitarianism society practice) (Emrich et al., 2004); albeit with a low humane orientation society practice scoring of 3.99 (category C of four categories A-D) (Kabasakal and Bodur, 2004); in a high power distance society practice country (category A of four categories A-D), with a score of 5.31 (Carl et al., 2004); but with low uncertainty avoidance society practices (or relative ambiguity tolerance) (category C of four categories A-D) (Luque and Javidan, 2004). Perhaps more determinant of Kazakhstan is its low performance orientation society practice of 3.57 (category C, of three categories A-C), placing it near to the bottom of the table (which is Greece, at 3.20, five places down) (Javidan, 2004). Javidan (2004, p.239) states that “performance orientation reflects the extent to which a community encourages and rewards innovation” and this is perhaps Kazakhstan’s greatest challenge for change into the near future, for which this study provides a model which may be used by decision-makers.

Innovation (Au-Yong-Oliveira et al., 2015) is essential for growth and requires new ideas, team work, and imaginative leaders (Tidd and Bessant, 2013). Innovation can, however, run into some obstacles, such as “bureaucracy, lack of trust, poor



collaboration within the innovation system, poor information support, legislative obstacles to innovations and intellectual property protection” (Butryumova et al., 2015, p.74). Truly modern economies must strive to improve their competitiveness through innovation (Porter, 1980) and Kazakhstan is an example of an economy wanting to get on the right track. Innovation in certain economies, however, will require certain culture-specific practices (figure 1), especially in the case of more traditional societies. After establishing business objectives (for example for growth, often including expansion into foreign markets), a sense of urgency will need to be communicated, to gain adherence to the program, beyond the usual day-to-day activity. Clear boundaries will also have to be established, so as to calm more conservative sectors. The creation of a network for innovation will bring many benefits to firms in former Soviet block countries seeking to modernize. Finally, lessons learned will need to be frozen in the culture, to ensure enduring change.

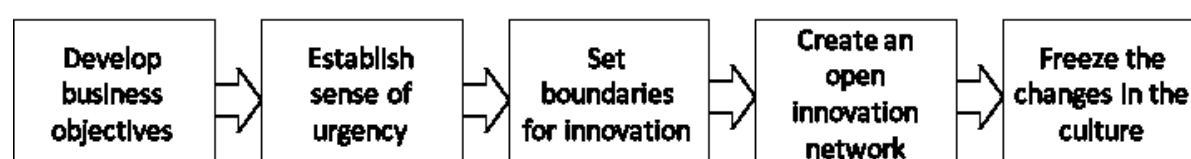


Figure 1 – Innovation in traditional societies (own elaboration; based also on Kotter, 1996)

“Formulas” for development are for the most part written for and by researchers from the West (e.g. the USA, where world-renowned strategy and innovation researchers such as Michael Porter and Clayton Christensen come from). However, characteristics of local economies must be taken into account to ensure long-lasting success, beyond initial wins. This paper seeks to bring attention to the need for tailored models (to improve innovation output) rather than for global models. The world is far from flat and we need to recognize that different approaches are needed, for different parts of the world (Ghemawat, 2007). Kazakhstan is placed 42<sup>nd</sup> (out of 140) in the Global Competitiveness Index 2015-16 (led by Switzerland and followed by Singapore) (World Economic Forum, 2016a); and the World Economic Forum

(2016b) also identifies innovation as being the pillar in most need of improvement, in Kazakhstan. We hope to contribute in whatever small way to this end.

Some previous research has focused on how Kazakhstan must manage its innovation processes better, to free itself from the reliance on the raw materials it possesses, and this is seen to be the function of the state, to foster the right national environment for competitiveness based on innovation (Sagieva and Zhuparova, 2012). Growth in Kazakhstan is also seen to be dependent on higher education, and its link to industry and to business, there being a need for a science and entrepreneurial culture at the national level, which is not limited to the copying of best practices, in a country which has such a unique heritage and history (Sagieva and Zhuparova, 2012).

Higher education as a priority in the development of nations, and for Kazakhstan in particular, has been recognized (Massyrova et al., 2015). “Kazakhstan has made significant progress in reforming its higher education system and moving towards a market-driven system. Since independence education reforms and changes have had a huge impact on Kazakhstan's education system” (Massyrova et al., 2015, p.49). The empirical work in this study thus focuses on the perspectives of higher education students, and how they view the way forward, with regards to the increase of innovation practices and output, in Kazakhstan.

## **2.4 Methodology**

### **2.4.1 Research question**

One might ask how important innovation is in a society which is so rich in natural resources, as is the Kazakhstan case (with strong reserves in oil, gas, gold, uranium, iron ore, copper, coal, zinc, manganese, and chrome, among others)? Despite the possibility that stability is more important than innovation in Kazakhstan, a very young country and democracy, this study focuses on *what is necessary to make Kazakhstan more innovative?* To this end we had a focus group discussion (or group interview), involving Kazakh students studying at the University of Aveiro, in Portugal, in April 2016. Of note is that the questions (appendix 1) were seen to be difficult to answer, according to the respondents, as they were seen to focus on aspects not usually discussed in Kazakh society (e.g. innovation).

#### **2.4.2 Focus group interaction involving students from Kazakhstan**

On 07-04-2016, in a room in the University of Aveiro library, we had a focus group interaction, in English, for about 90 minutes in total (14h15-15h45). Focus groups are a qualitative method of data collection, in a group discussion format (Ghauri and Gronhaug, 2005). Respondents interact, with a moderator or moderators, in what is an economical and fast way to gather information (Ghauri and Gronhaug, 2005). The session was audio recorded, with authorization, and ten people were present, including the two researchers. The eight participating students, from Kazakhstan, on Erasmus exchanges at the University of Aveiro, for three months in total, all came from the same university, in Kazakhstan, three weeks before. The exchange was actually coordinated by one of the researchers (also from Kazakhstan). The eight students' names are (forenames only):

- 1) Nauryzkhan (Master's in Geology student)
- 2) Madi (Master's in Geology student)
- 3) Arman (Ph.D in Physics student)
- 4) Andrey (Master's in Geology student)
- 5) Ardak (Master's in Geology student)
- 6) Ulmeken (Master's in Geology student)
- 7) Yeldana (Master's in Ecology student)
- 8) Aigul (Ph.D in Physics student)

The topic of the focus group was Kazakhstan, namely its innovation, ethnocentrism, and national culture characteristics. The discussion initially followed a script, with questions, and then evolved on to other topics, related to the main theme of the interaction – Kazakhstan culture and how to make Kazakhstan more innovative?

A danger of bias may exist in such interactions, whereby the participants may feel some pressure to conform to behaviour expectations – we shall call this “peer pressure to conform”. On the other hand, the lecturer present was not their lecturer so there was no pressure to impress him or the other researcher for any particular reason. The participants thus spoke truthfully and in a forthcoming fashion. Any group pressure felt was, however, duly noted by the main researcher. Of note is that focus groups are very popular in the UK (Ghauri and Gronhaug, 2005).

### **2.4.3 Results of the focus group interaction**

It was made clear during the focus group that the students consider themselves to be a part of a new Kazakh generation of highly educated “free thinkers” who have been able to see different avenues and paths for their lives, possibly being able to consider other ways to make a living and to live their lives (going beyond simply having a profession to make money to cover living expenses). They also consider that they are not powerful enough, as they are still only a small minority, to bring about far-reaching change in Kazakhstan.

There is a lot of talk about innovation in Kazakhstan, in all aspects of society, by politicians and in businesses alike. Innovation was defined by the group as being something new and useful for people in society – new ideas, new technology, which have a practical application. The group has members who have travelled quite extensively, especially in Europe, but also in the USA. No conflict has been felt during these interactions, due to the multicultural community present in Kazakhstan, which has given Kazakhs a good background, preparing them to mix in different types of communities and with people of different nationalities. What do they miss from Kazakhstan? Horse meat. They were all unanimous on this point. The neighbouring Russians have vodka as a part of their culture, in the case of Kazakhstan it is horse meat.

Kazakhstan was a part of the Soviet Union, and this may explain their somewhat passive-type culture (the need to be more proactive and active was discussed). They also consider themselves to be Asian, despite part of Kazakhstan being in Europe. They identify themselves more with Asia. In Europe, the country they identify themselves with most is Turkey (the language is similar and they share some celebrations and festivals). “Open, hospitable, kind, talk a lot” is how Portuguese culture was described by the group.

Relationships are very important in Kazakhstan, you have to help your in-group as much as possible, your friends. Your network, who you know, is very important. In Portugal lecturers can appear to be their friends, but it did surprise them that this friendship does not extend beyond the personal into the professional, in this case to the academic side, in terms of grades given. Making friends with your lecturer in

Kazakhstan will mean you will pass with a good grade. This will happen in any job, in most cases, promotions occurring because of friendships. There apparently is not a meritocracy in place, in Kazakhstan. Kazakhstan has a very low performance orientation, close to Greece, which is at the bottom of the table (Javidan, 2004). This may be linked to the lack of a meritocracy in Kazakhstan, to the case of personal relationships being all important in society, as described by the students.

Kazakhs come across as being very friendly, and they, all of the students on the Erasmus exchange (from a university in Almaty, in the South of Kazakhstan), came to the focus group, on time, to be able to contribute to our research (linked to one of the researcher's master's dissertation in management). They came out of friendship, and were jokingly clear on that. One of the researchers is, however, the representative for Kazakhstan, at the University of Aveiro, and thus has a minor official role amongst the student population.

They do not like "ovos moles" ("sweet eggs", a local Aveiro sweet), or the rain (it has rained a lot over the past month, of March and April, 2016) in Portugal, but they like the local wine.

Portugal decidedly has more opportunities, especially to change careers, if a young adult chooses to do so, and this has been noticed. Kazakhstan is more rigid, in terms of professions. Higher education diplomas are very important and are a basis for employment in Kazakhstan. To become an artist, in Kazakhstan, for example, is seen to be a bad choice, as there is no money in art. The Kazakh students were clear on the fact that they work for money and to be able to live (an Asian outlook), rather than wanting to work in something that inspires them or that is their passion.

All of the students are in Portugal on Erasmus-funded scholarships – though the government also funds scholarships ("Bolashak" – link to the official web-page <http://bolashak.gov.kz/en/>) and is spending a lot of money to send young students to study all over the world, to develop and cultivate novel perspectives and knowledge in Kazakhstan. One of the students commented that this effort should happen earlier, in secondary school, for example, as when they are already in higher education job choices have been made and cannot be changed (without great difficulty, and involving a new university degree) so it may be too late to send people abroad to learn and be open and receptive to new knowledge.

Your grades are not very important, the students said in unison, what is important is to get your higher education diploma. However, you will have to be good at your job, that is you will have to have the skills, or you will not get through your internship, and will be dispensed with.

The views on jealousy in society and on the effect of personal relationships in academia, between professors and students, were challenged by the group. When one individual participant stated that Kazakh society was a jealous one, and another stated that in academia, much as in professional environments, personal relationships had an important bearing on outcomes (a characteristic of relationship-oriented or highly interpersonal cultures), other participants were quick to disagree. This is deemed normal in focus groups where “individuals will often argue with each other and challenge each other’s views” (Bryman and Bell, 2011, p.504). Also, the participants wanted to give as good an impression as possible of their country, being visitors to Portugal, a country which does not know very much about Kazakhstan, and this may be at odds with being very sincere about less flattering characteristics. Jealousy was however considered by the group, in the end, to be a general characteristic of human beings, and Kazakhstan in that respect is just normal, there not being more jealousy in Kazakhstan than in other countries.

Though there are very rich people in Kazakhstan, to their knowledge such people were not known to give away their riches, in the manner of, for example, Richard Branson (Virgin), Warren Buffet (Berkshire Hathaway), Mark Zuckerberg (Facebook) or Bill Gates (Microsoft). Very rich people in Kazakhstan were indeed described as being greedy, and selfish, by one participant.

Citizens can change country or nationality without barriers, Kazakhstan is a free nation – though you may not have another passport or citizenship other than that of Kazakhstan, at least at the same time (dual citizenship is not allowed).

Participants were all agreed that Kazakhstan is a peaceful and non-aggressive country.

Being passive is a barrier to development, people have to be proactive, more active in Kazakhstan.

The dream of one Ph.D student – to do something new in research, in a lab in the USA.

How to change Kazakh culture? Start with yourself first. Change yourself first. Become more active. That change will then extend to other Kazakh people.

Kazakh people are seen to be quiet, modest, and humble – traits that will be good for tourism, a current priority in Kazakhstan.

Kazakh society is seen to be an autocratic society, where the “boss” has the most influence (rather than being democratic).

The government’s strategy will have to change, to make the country more innovative. The 2050 program and plan (appendix 2) will have to include more along the innovation line of thought.

The students know of Kazakh people who have emigrated and adapted very well to other countries, and who are applying their skills internationally.

The Kazakh people are very hospitable. They also like to frequently give gifts when visiting a friend’s house or during other social interactions (for example, between professors and students).

Kazakhs move around a lot, for example if their family is scattered around the country, and as their country is so big. They have not been nomads for several centuries now but remain very mobile.

The group made it clear that the researcher from Kazakhstan was their friend, but also their Coordinator.

Kazakhstan is mainly a men’s society, according to the focus group participants. Males will dominate the family unit, and women will tend to obey (contradicting the high category A score of 3.84, of three A-C categories, for gender egalitarianism society practice) (Emrich et al., 2004). Albeit, many women are entering politics and other organizations as leaders.

Kazakhstan in one word was described as being *big* – but also as having a lot of nature (and different types of natural environment) – and potential.

A lack of professional mobility may lead to a jealous society.

Islam was the religion of most of the participants (six), though one was an atheist, and one was an Orthodox Christian.

In Almaty it may take two hours to go from one end of the city to the other, due to traffic. So moving around and taking time to move around is seen to be normal.

Kazakhs do have a social life, not like other Asian countries, which focus a lot on work.

## 2.5 Discussion and conclusion

For long-lasting change to occur in Kazakhstan, it must be supported at the highest level, while also captivating the attention and inspiration of people placed lower down in society – for example, the engineers and managers working in organizations. The “establishment”, the people in power in Kazakhstan, must sponsor the change towards an entrepreneurial society – where innovation is rewarded. Our model for making Kazakhstan more innovative (figure 2) may take some time to be implemented. Indeed, Hofstede (2001) states that cultural change, at the national level, may take fifty years or more to be realized. Kazakhstan is not in a hurry to change. However, a sense of urgency needs to be instilled at the government and enterprise levels as for cultural change to occur this will mean that the country will have to change faster than its neighbours – for the change to be noticeable. This is no easy task, for any economy, and the diversity of the Kazakh society (Aitken, 2009) may prove essential in the [renovation] process.

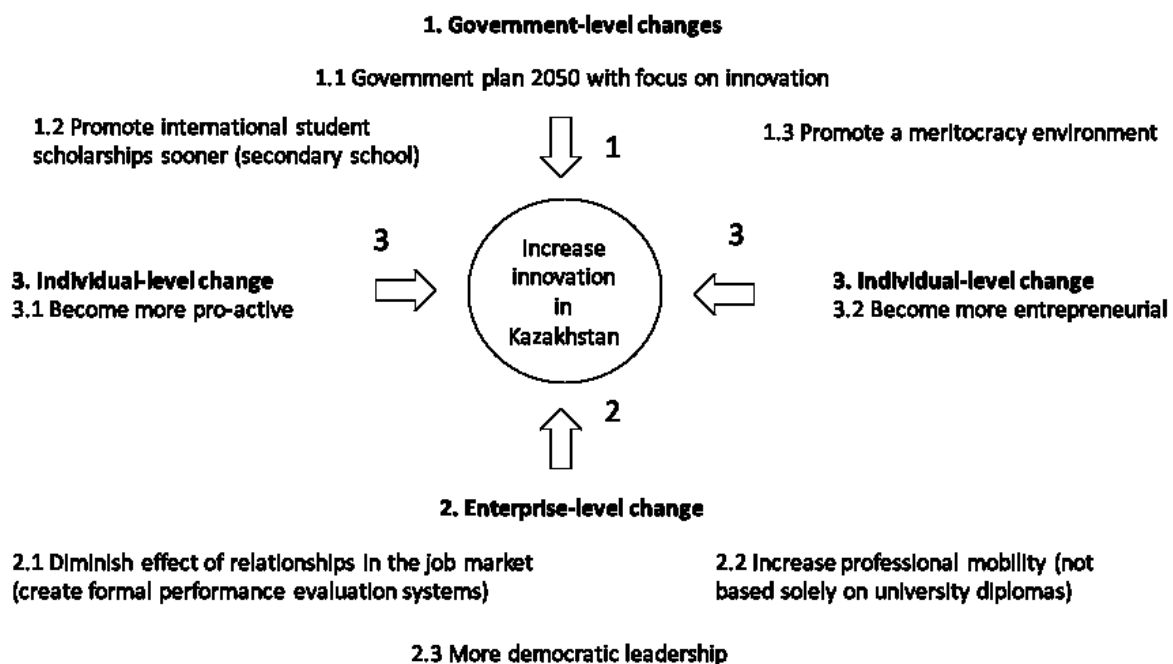


Figure 2 – A model for making Kazakhstan more innovative



In figure 2 we may see a model for making Kazakhstan more innovative. This will involve change at three levels: 1. The government level; 2. The enterprise level; and 3. The individual level. There is a need for the government to pay more formal attention to innovation, which needs to be reflected in its government plan. Promoting a meritocracy environment will initially be alien in a society based on relationships – other relationship-oriented, or highly interpersonal cultures, include China – versus transactional cultures, such as the USA, located on the opposite spectrum of the classification created by Solomon and Schell (2009) – but will be instrumental for the transition to an entrepreneurial society to occur (societies where profits accrue to those who innovate successfully, according to Schumpeter (1943)). The government's investment in students and their studying abroad is seen to be very positive, but if happening earlier, at the secondary school level, may bring about even more change. In the job market, and in industry, formal performance evaluation systems, focused on the job task(s), and not on personal connections, will aid the transition to a meritocracy environment. In autocratic organizations – Kazakhstan scores high on assertiveness and “obedience and compliance” are expected in organizations (Lewis, 2006, p.383) – employees are afraid to voice their views, especially if they are different from those of the leader, and this will inhibit innovation (Oliveira and Ferreira, 2012). Also, Kazakh society will need to be less bureaucratic (Butryumova et al., 2015) and formal, which will lead to more job mobility, less based on formal qualifications, and instead based more on passion, inspiration, and the desire to perform well, which are instrumental to an innovative society – where there is “the intrinsic motivation to engage in the activity out of interest, enjoyment, or a personal sense of challenge” (Amabile, 2012, p.3). Finally, people will have to be more proactive, and less passive, voicing their [innovative] views in an innovation-welcoming environment (less authoritarian and more entrepreneurial).

## **2.6 Acknowledgements**

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## **2.8 APPENDIX 1**

### **A focus group about innovation in Kazakhstan**

Focus group questions:

1. Can you define innovation?
2. What does being innovative mean to you?
3. Do you consider yourself to be innovative?
4. If you answered “yes” to the question above, please state why?
5. Why should we be innovative?
6. Is Kazakhstan naturally innovative?
7. What is the best way to innovate [in Kazakhstan]?
8. Can you name innovative Kazakh companies?
9. Do you know any innovative companies worldwide?
10. If you answered “yes” to the question above, please name these companies.
11. Why are these companies innovative?

Additional questions – please discuss the following:

12. Ethnocentrism – Kazakh culture is superior to other cultures.
13. We in Kazakhstan cannot be compared to other cultures.
14. We are the same as other cultures.
15. Portugal and Kazakhstan are very similar.
16. What is the importance of innovation?
17. I consider myself to be very innovative.

## **2.9 APPENDIX 2**

**In “STRATEGY “Kazakhstan-2050” - New political course of the established state”**  
one may read about the following subjects, or priorities, for Kazakhstan:

1. “A Strong and Successful State
2. Sustainable Process of Democratization and Liberalization
3. Harmony and Peace among disparate Social, Ethnic, and Religious Groups
4. National Economy. Our Role in International Division of Labor.
5. Strong Social Policy to Ensure Social Stability and Harmony
6. Globally Recognized Country
7. Our Proactive Role in Promoting Nuclear Nonproliferation Regime
8. Strategy Kazakhstan 2030: Key Outcomes”

### **“Ten global challenges of the 21 century**

1. First challenge is the accelerating course of history
2. Second challenge is the global demographic imbalance
3. Third challenge is the global food security threat
4. Fourth challenge is the water shortage
5. Fifth challenge is the global energy security
6. Sixth challenge is the exhaustion of natural resources
7. Seventh challenge is the Third industrial revolution
8. Eighth challenge is the growing social instability
9. Ninth challenge is the crisis of our civilization’s values
10. Tenth challenge is the threat of a new global destabilization”

(Kazakhstan 2050)



### **3. Article 2**

**The case of Kazakhstan – Helping innovation find its place**





## **The case of Kazakhstan – Helping innovation find its place**

### **3.1 Abstract**

This research effort, into how to increase innovation output in Kazakhstan, involved two focus groups and two surveys. Kazakhstan has made tremendous progress according to a number of indicators but still has some distance to cover in terms of its innovation capability. For innovation to increase in society a meritocracy has to be in place (including making the firing of people from firms possible) – people must be prepared to disagree and be evaluated and receive feedback for their endeavours. Open and direct communication will be a necessity but may also be detrimental to the highly valued harmony in Kazakh society. The government will have to promote nation-wide change programs to promote innovation (especially as regards regulations for start-ups, tax incentives, the purchasing of equipment, among others) in a nation which is very reliant on its natural resources. Far-reaching change may take more than a generation to be implemented, but the current investment and importance attached to education is seen to be very positive. Entrepreneurship is increasing in Kazakhstan, in particular by younger people, and it will also be necessary for decision-makers at the highest level to loosen the rules and restrictions to make life easier for those entrepreneurs to follow their dreams in Kazakhstan, which will lead to a bolstering of the economy.

Key words: innovation, change, entrepreneurship, culture, focus group, survey.

### **3.2 Introduction**

This article, in which two focus groups and two qualitative surveys were undertaken (having involved a total of thirty-six people, or informants), is about a country which is not in the news daily – Kazakhstan. The objective of the study is to ascertain what is necessary to increase innovation levels in Kazakhstan and to create a more innovation-embracing Kazakh culture, seen to be lacking (Javidan, 2004). Russia is seen to be Kazakhstan's most important influence, up until 1991 (the independence of Kazakhstan). Kazakhstan is now considered to be more competitive than Russia

(42<sup>nd</sup> vs. 45<sup>th</sup> place in the 2016 Global Competitiveness Index), though both score the same with regards to innovation (3.3), in a list led by Switzerland (score of 5.8). Switzerland also leads the list with a business sophistication score of 5.8 (vs. Russia and Kazakhstan, both at 3.8). Kazakhstan thus faces specific challenges for the future and with this research effort we seek to contribute to the betterment of quality of life in Kazakhstan, in whatever small way possible.

The case study introduction is followed by a review of the literature in areas considered important to the study, and to the improvement of quality of life in Kazakhstan. Thus, the subjects covered are: Kazakhstan (background), national culture and change, entrepreneurship and start-ups, innovation, and leadership and culture. The methodology adopted in the study is then discussed, followed by a presentation of the field work results, and finally by a discussion and conclusions of the study.

### **3.2.1 Kazakhstan – Background**

“We, the people of Kazakhstan,  
united by a common historic fate,  
creating a state on the indigenous Kazakh land,  
considering ourselves a peace-loving and civil society,  
dedicated to the ideals of freedom, equality and concord,  
wishing to take a worthy place in the world community,  
realizing our high responsibility before the present and future generations,  
proceeding from our sovereign right,  
accept this Constitution.”

(Constitution – Republic of Kazakhstan, 2015)

The Republic of Kazakhstan has been admired by the UK for its “role in building global peace and security” (Ministry of Foreign Affairs Republic of Kazakhstan, 2016). The Kazakhstanis are multicultural and non-aggressive, and indeed are credited for being amongst the first to domesticate horses (some 6,000 years ago), which have a special place in Kazakh history and culture (Williams, 2012).

Aitken (2009, p.1) provides a good perspective of Kazakhstan, which is presented as being “colossal in size, complicated in its history, colourful in its culture and has a more compelling narrative as a modern nation state than most outsiders know”. Kazakhstan is bigger than Western Europe and it shares a border with Russia which is longer than the border between Canada and the USA. Only eight other countries in the world are bigger than Kazakhstan, which starts in Europe and ends in Asia, where it meets Western China. Kazakhstan has only been a country since 1991, and its people (described as being composed of nomadic tribes) had to endure many hardships, inflicted by its invaders and colonial masters, in order to survive the passage of time. A number of woes struck Kazakhstan, soon after it became a country, including “hyperinflation, the collapse of the currency, food shortages, and the emigration of two million people, most of them skilled workers and managers” (Aitken, 2009, p.2). During its period as an independent country only one man has ruled the Kazakhs as President – Nursultan Nazarbayev. Nazarbayev has made much change occur in Kazakhstan, which has been progressing towards democracy, and freedom as regards religion, the press and human rights, in that which is “the most economically successful nation to emerge from the collapse of the Soviet republics, rich beyond computer projections in oil, gas, and other natural resources” (Aitken, 2009, p.4).

Kazakhstan, in 2014, was placed 56th in the Human Development Index (HDI) – “created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country” (HDI, 2016) - up 14 places from 70th in 2013 and 2012 (CountryEconomy.com). Note that Russia is placed 50th, thus being ahead of Kazakhstan in this measure (UNDP-Russia, 2015). At birth, life expectancy is 69.4 years of age, and expected education levels are at 15 years of schooling (UNDP-Kazakhstan, 2015), for a population of 17.2 million (World Economic Forum, 2016). The Gross national income (GNI) per capita is \$20,867.4, there being 168.6 mobile phone subscriptions for each 100 people (UNDP-

Kazakhstan, 2015). Financial market development is still lagging (score of 3.6), as is innovation (score of 3.3), for a country where the macroeconomic environment is very favourable (score of 5.7) and health and primary education are doing well (score of 5.4), as is labour market efficiency (score of 4.9) (World Economic Forum, 2016). On the Global Competitiveness Index Kazakhstan is placed 42nd out of 140 countries. Businesses are not very sophisticated (score of 3.8), in a country where institutions, infrastructure, and technological readiness are on a par (scores of 4.2) (World Economic Forum, 2016).

Kazakhstan scores low on performance orientation (3.57) (society practices) marginally above Russia (3.39), Venezuela (3.32), and Greece (3.20), in a list led by Switzerland (4.94) and Singapore (4.90) (Javidan, 2004). Lower scores in performance orientation mean that societies value family relationships, loyalty, sympathy, quality of life, seniority, harmony, tradition, and cooperation (Javidan, 2004). On the other hand, such societies have negative views on feedback and appraisal (as they lead to discomfort), assertiveness, money as a motivator, and decisions based on merit – while also having little sense of urgency and avoiding direct language and communications (Javidan, 2004).

Some relevant statistics about Kazakhstan:

- “The number of unemployed people estimated in April 2016 was 439.3 thousand. people. The unemployment rate was 4.9% of the economically active population.” (Republic of Kazakhstan Committee on Statistics, 2016a).
- “The volume of investment in fixed assets in January-April 2016 was 1681.7 billion tenge, which is 14.9% higher than in January-April 2015.” (Republic of Kazakhstan Committee on Statistics, 2016b).
- “The number of registered legal entities as of May 1, 2016 was 368452 units and compared with the corresponding period of the previous year increased by 3.2%, including 359345 units with less than 100 employees. The number of operating entities was 227672 including 218934 small businesses (less than 100 employees).” (Republic of Kazakhstan Committee on Statistics, 2016b).
- “The consumer price index in April 2016 compared to December 2015 was 103.6%. The food prices have increased by 3.9%, non-food - by 3.5%, paid services - by 3.5%. Prices of industrial products in April 2016 compared to

December 2015 has increased by 1.3%.” (Republic of Kazakhstan Committee on Statistics, 2016b).

Thus, there is practically full employment if we consider that 4% unemployment is a level of people in transition; fixed asset investment is increasing which is positive and reveals an eye for the longer term; the number of legal entities increased from 2015 to 2016; there is some inflation of prices (versus deflation in some countries in the EU, in 2015, due to austerity measures).

Table 1 shows the number of organizations conducting R&D (research and development) in Kazakhstan. Having increased from 273 in 2003, to 390 in 2015, which is positive, 2007 saw a high of 438, suggesting that Kazakhstan was negatively affected by the global crisis of 2007. These numbers are still low considering the number of operating entities in Kazakhstan of 227,672 (Republic of Kazakhstan Committee on Statistics, 2016b).

Table 1 - The number of organizations conducting R&D in Kazakhstan (Republic of Kazakhstan Committee on Statistics, 2016c) – Period 2003-2015

<b>N° of organizations conducting R&amp;D in Kazakhstan</b>	<b>Year</b>
273	2003
295	2004
390	2005
437	2006
438	2007
421	2008
416	2009

424	2010
412	2011
345	2012
341	2013
392	2014
390	2015

Table 2 shows the number of innovationally active enterprises. The number has increased very significantly since 2003, from 148 to 2,585, in 2015, showing how innovation is becoming a more widespread phenomenon in Kazakhstan. However, the figure is still low as there are 218,934 small businesses alone, in Kazakhstan (Republic of Kazakhstan Committee on Statistics, 2016b).

Table 2 - The number of innovationally active enterprises (Republic of Kazakhstan Committee on Statistics, 2016c) – Period 2003-2015

<b>N° of innovation-active enterprises in Kazakhstan</b>	<b>Year</b>
148	2003
184	2004
352	2005
505	2006
526	2007
447	2008

399	2009
467	2010
614	2011
1622	2012
1774	2013
1940	2014
2585	2015

Table 3 shows the innovation activity rate in Kazakhstan (in %), when considering four types of innovation: product, process, organization and marketing. Over 2004 to 2015 the figure has increased quite significantly (from 2.3% to 8.1%). If one considers, however, that all enterprises have to be involved in innovation, to remain competitive, the figure could be higher.

Table 3 - The innovation activity rate in Kazakhstan (in %) (Republic of Kazakhstan Committee on Statistics, 2016c) – Period 2004-2015

<b>Innovation activity rate (in %) in Kazakhstan</b>	<b>Year</b>
2.3	2004
3.4	2005
4.8	2006
4.8	2007
4.0	2008



4.0	2009
4.3	2010
5.7	2011
7.6	2012
8.0	2013
8.0	2014
8.1	2015

As concerns petroleum, in 2014 Kazakhstan was ranked 18<sup>th</sup> worldwide for “Total Petroleum and Other Liquids Production” (US Department of Energy, 2014), in a list led by the USA, with Saudi Arabia in second and Russia in third.

### **3.2.2 National culture and change**

“Culture is public because meaning is” (Geertz, 1973, p.12). However, culture is not “mental phenomena which can be analysed by formal methods similar to those of mathematics and logic” (Stephen Tyler, as quoted by Geertz, 1973, p.12). Culture is complex, encompassing collective mental perspectives, shared meanings, assumptions and orientations (Usunier, 1998). Cross-cultural management research is still a subject in which much remains to be discovered (Usunier, 1998), and this is visible in the problems felt due to unsuccessful attempts to manage change in different parts of the world (including change in the Arab world, but not restricted to this).

Culture modification will involve behaviour modification which in turn “needs careful planning to identify specific behavioural goals, and procedures for reinforcing the behaviours that will achieve those goals.” (Huczynski and Buchanan, 2013, p.171). So, success with culture change and behaviour modification will depend on having specific targets, which will need adequate reinforcement to be effective (Huczynski and Buchanan, 2013).

The main issue with culture is that culture change involves changing deeply ingrained values and behavioural responses to stimuli. All intentional change involves some form of manipulation, even with the best of intentions in mind, and thus may be the subject of criticism. Other difficulties in the process relate to having appropriate reinforcers – and that which is considered appropriate will vary from individual to individual – and that change, once initiated, must be supported and sustained. Also, much as with other sorts of change programs, changing behaviour requires funds and a considerable budget (Luthans and Kreitner, 1985, as quoted in Huczynski and Buchanan, 2013), which just may not be available as required.

According to Hostede (2001), culture change at the national level will take from 50-100 years. For change to occur faster, certain outside events of great significance will have to trigger and spur on the change.

### **3.2.3 Entrepreneurship and start-ups**

Entrepreneurs are quite naturally linked to start-ups, which are not just small versions of bigger companies, but have other characteristics which distinguish them (Blank and Dorf, 2012). Start-ups are organizations in transition, initially starting with good ideas and no customers, and aiming to become scalable (normally linked to technology, and requiring external investment), repeatable, and lucrative organizations (Blank and Dorf, 2012). Smaller firms such as start-ups are more easily the creators of disruptive innovation products for new customers, as larger firms and their organizational cultures make more radical innovation difficult (Blank and Dorf, 2012), due to the existence of antibodies and a reluctance to cannibalize existing product ranges. Some very notable cases of not wanting to cannibalize successful firm products are Nokia, which did not want to go away from its dumbphone to sell smartphones (Oliveira et al., 2014), Kodak (reluctant to sell digital cameras as they were so good at selling traditional cameras, with film), and Apple, the latter example having occurred at the time when the late Steve Jobs was fired from the company he co-founded (Gray and Quinn, 2011), though when Steve Jobs later returned to lead the company again the recognition of the need to cannibalize Apple products, for example when launching the iPhone and in relation to the iPod, was very much present and managed well (Oliveira et al., 2014).

“Entrepreneurship is a kind of management” (Ries, 2011, p.3), which can be learned and taught. An entrepreneurial culture is one where there is no fear of experimenting and some risks are taken. Novel initial product offerings do not have to be perfect but may evolve instead very quickly to suit customer wants and needs, building a customer base along the way. In an entrepreneurial society entrepreneurs are commonplace and easy to come by. The emphasis is on creating something new and of uncertain outcome. Lean start-ups are about building and then measuring the market response, they are about prioritizing and setting up milestones (Ries, 2011).

### **3.2.4 Innovation**

The importance of innovation, which can be open (involving partnerships), closed (with more investment in secrecy and internal resources), disruptive (more far-reaching) or incremental (less profound but important nonetheless), is widely recognized and “corporations must be able to adapt and evolve if they wish to survive. Businesses operate with the knowledge that their competitors will inevitably come to the market with a product that changes the basis of competition” (Trott, 2012, p.4). Innovation is linked to commercial success and thrives on change – both at the cognitive level, how we think, and at the level of action, what we act out and undertake (Trott, 2012). With innovation ideas are important but the real essence is in the execution and the delivery (Sergey Brin, quoted by Trott, 2012). Organizations must be able to use their knowledge, experience, and technology base and skills to produce novel offerings (products and / or services) and be able to make them available to consumers (Tidd and Bessant, 2013) located in favourable markets. Innovation involves a number of key factors, such as a strong R&D [Research & Development] competence, being able to understand customer needs, possibly involving people from both inside and outside the organization to meet those needs, while leveraging technological advances available at a given moment in time (Tidd and Bessant, 2013). To manage the innovation process routines will have to exist, employees will have to be encouraged and empowered, there will have to be resources in enough supply to see ideas through to completion, in an environment where questioning the status quo and disagreeing is acceptable (Tidd and Bessant, 2013).

With regards to innovation Hargadon and Sutton (2000) place an emphasis on idea generation in a systematic way. Knowledge brokering involves building on old ideas and on finding new uses for them through experimentation and in open environments where many can contribute (Hargadon and Sutton, 2000). People with different skills and interests and training should be hired by companies wanting to innovate consistently (Hargadon and Sutton, 2000).

### **3.2.5 Leadership and culture**

The new generation of educated youths may help bring about far-reaching change in Kazakhstan and aid the transition from autocratic to democratic rule (Aitken, 2009). Possessing certain affinities with Turkey, and sharing some festivals and religious perspectives with them, Kazakhstan may have similar scores on Hofstede's (2001) dimensions (both Russia and Kazakhstan are absent from the analysis in Hofstede, 2001), namely: power distance above average (score of 66), high uncertainty avoidance (score of 85), low individualism (score of 37), and a medium score for masculinity (score of 45) (classification of Turkey by Hofstede, 2001). The Hofstede Centre (n.d.) did subsequently publish scores for Russia (a dominant force with regards to Kazakhstan and with an undeniable influence on Kazakhstani culture) which were:

- Power distance = 93 (very high, a sign of an unequal society, in a top-down leadership culture);
- Uncertainty avoidance = 95 (very high, thus disliking ambiguous and unknown situations);
- Individualism = 39 (low, so relationships are very important in every aspect of society);
- Masculinity = 36 (low, meaning the emphasis is on quality of life and modesty between peers);
- Long-term orientation = 81 (high, emphasizing, for example, modern education, and having a pragmatic orientation).

There is thus an indication that Kazakhstan will have a preference for autocratic leadership, occurring in a top-down fashion, in an unequal society, where personal networks will prove to be very important. Furthermore, and despite the expected

leadership style, peers should interact with modesty, in a pragmatic way, and avoiding ambiguity.

What one may conclude from this type of classifications, such as by Hofstede (2001) or by Solomon and Schell (2009), is that cultures differ and that some countries function better with more authoritarian leaders, in high power distance cultures – the cases of Arabic countries, Guatemala, and the Philippines, for example, and according to Hofstede (2001) – while other countries prefer and function better with more democratic or participative leaders, where there is less power distance – which are the cases of Australia, Sweden, Austria and Israel, according to Hofstede (2001).

An ongoing discussion (contingency theory) is about whether managers can change their leadership styles, from example from autocratic – whereby leaders dislike being disagreed with (Oliveira and Ferreira, 2012; Hoogh et al., 2015) – to democratic – whereby leaders encourage discussion and input from followers but still maintain responsibility for the final decision (Ferraris, 2015) – to fit the context and situation. Fiedler's (1967) theory is that context is all important for effective leadership and that leaders are not able to adjust their styles but rather should find situations (or organizations, or even countries) which suit them. Hersey and Blanchard (1988), on the other hand, defend that leaders can adapt themselves successfully to different situations, in what they indeed call a situational leadership approach. Whether leaders can change and adapt or not is important in so far as a country intending to change and become more innovative and more democratic may be more demanding of its supervisors and leaders, which may also slow down the pace of change in society. Change may actually take several generations to noticeably solidify (Hofstede, 2001) and bring practical implications for innovation.

### **3.3 Methodology**

#### **3.3.1 Research question**

Given that Kazakhstan has tremendous wealth, in terms of its natural resources, one may contend that innovation is not important. We argue that innovation, as a basis for competitiveness, is always important. Even resource extraction may benefit from process innovation. On the other hand, any natural resources have their limits, whatever that amount may be – depending on the timeframe and the speed at which

they are extracted. The research question is thus *how can we make Kazakhstan more innovative?* Being a contemporary phenomenon, and also a sensitive issue, as innovation involves change, a qualitative and interpretive approach was adopted for the research study. The data collection period lasted until there was a saturation of the data and thus until the researcher found that no new material was being collected, signalling the end of the field research effort.

### **3.3.2 Focus groups**

One focus group interaction was undertaken on the 7<sup>th</sup> of April 2016, with eight participants from Kazakhstan (students on an Erasmus exchange from Kazakhstan to Portugal), and during 90 minutes. The courses being studied by the participants include geology, physics and ecology, at the master's and doctoral levels. The session was audio-recorded, with permission. Another focus group was undertaken in Kazakhstan, and had eight participants, all foreign (from Europe and North America), chosen for their knowledge about Kazakhstan, who wish to remain anonymous. These ex-pat informants on Kazakhstani culture have an outsider view, though with local knowledge acquired from having worked (and currently working) in Kazakhstan. The participants have been working in Kazakhstan for periods of about one year (the shortest) and up to eight years (the longest). The session was audio recorded for a total of 45 minutes.

The authors are aware of group pressure as one source of bias in the focus groups. Group selection may be another source of bias: for example, in the first focus group the participants are not representative, and they have a shared background (shared teachers, therefore shared mental models, shared Erasmus destination, shared and aligned mental models of the Portuguese university, shared joint social background). The selection of the group has implications on the results – as they might or might not have access to "current data", "background insight to political strategy" or "insight to industry". This makes the reliability of this particular research questionable and so the study serves as an exploratory research effort. Using convenience sampling, the case herein, is actually quite popular in management research, whereby a sample "is simply available to the researcher by virtue of its accessibility" (Bryman and Bell, 2011, p.190). It is not possible, however, to generalize the findings, however

interesting they may be, as we do not know to which population the sample pertains. In pilot research studies convenience samples are used and are valid, and this type of preliminary analysis is thus acceptable (Bryman and Bell, 2011).

### **3.3.3 Qualitative surveys**

Two qualitative surveys were undertaken – one involving the eight focus group student participants, and another involving twenty professionals working at major firms in Kazakhstan (there were seventeen people from an oil company, one person from a Microsoft company, and two from two different local banks). The objective was to gather further individual insights into the topic of innovation and Kazakhstan. Each informant was thus subjected to the same stimuli, so that the output could be compared (Bernard, 2006). Seven of the student focus group participants answered the survey questions (one individual who received a questionnaire did not). The other survey respondents are all Kazakhstanis who are currently residing in Kazakhstan. The survey had twelve questions, including the final question about additional observations on the topic, and was the same in both cases. The surveys were sent to, and received from, respondents by e-mail, or otherwise delivered personally, during the months of April and May 2016.

## **3.4 Empirical results**

### **3.4.1 Focus group results (students on Erasmus exchange)**

#### *Free thinkers and change*

The focus group participants consider themselves to be “free thinkers”, having had access to good schools and travel (in Europe but also to the USA), thus having a different perspective of the future, being able to see both the positive and less positive aspects of Kazakhstan. The participants also considered that free thinkers with this outlook are in a minority in Kazakhstan, but that the ongoing investment in education, including abroad, will increase people with different outlooks in Kazakhstan, which will be a good thing.

#### *Kazakhstan and innovation*

Innovation is currently a popular topic in Kazakhstan, however having been a part of Russia Kazakhs are quite passive, which is not conducive to innovation, the participants thus recognizing that they have to more proactive. Kazakhs are very hospitable, which is good for tourism, but dislike conflict and disagreeing, and prefer harmony, which may hinder innovation efforts.

### *Relationships*

In-groups and their respective relationships are of utmost importance in Kazakhstan. Personal networks, your friends, will have a strong influence on how well you do in various walks of life, including in your job. Advancement will not be based on merit but more on who you know in society.

### *Mobility in society*

Your university degree in Kazakhstan is very important and limits your career in so far as you are expected to follow a career for which you studied at university. There is a certain rigidity in this aspect, and the participants stated that choosing your higher education degree occurs when you are oftentimes too young to really know what you want to do, so change in this area would be welcomed, and would possibly lead to more fulfilling careers.

### *Peaceful and non-aggressive*

Kazakhs are peaceful and non-aggressive, and quiet and modest. At work bosses are obeyed without question, in what is seen to be an autocratic society. Kazakhs frequently give gifts during social interactions and are very friendly and supportive of their in-group.

## **3.4.2 Focus group results (ex-pat workers in Kazakhstan) - some questions and answers are included below**

### *Is your country very different to Kazakhstan?*

Everyone responded “yes”, “absolutely different” or “very different”.

### *Do you think that Kazakhstan is an innovative country / culture?*

One respondent said: “For the younger generation – yes. I don’t see any difference between the younger generation in Kazakhstan and the younger generation in the



USA.” Another respondent agreed but had some doubts as to whether the innovation could flourish. Is the government and the environment open enough?

One answer was that the country is organized in a way that has some pros and cons. One family runs the country and the prime-minister may limit certain processes and the country is thus highly regulated. You have limitations because it’s not really a free democratic open country. On the other hand, Singapore is run by a single family, in charge and in total control – and yet it is extremely innovative.

The local currency is a problem – the tenge – if it devalues the costs of goods (imports) go up, which is a real vulnerability. With the tenge devaluing everything is getting more expensive, more than things that are manufactured internally. So all those bright talented people that could innovate, do they have the means to innovate here? Are they going to say well let me go somewhere else and do my thing there. So what me and my colleague are talking about is if there is any structure there to support innovation.

I guess people here are as innovative here as anywhere else in the world.

I guess in Kazakhstan people are quite innovative about the way they do work, implementing new approaches and new ways of doing things related to daily tasks, but that doesn’t mean that they can go straight ahead and make up a new iPhone 7.

One respondent stated that “From my experience from conversations with locals I think it is quite difficult to start a business here. And if you want to innovate then it is important that it’s easy to start your own company and do something different. But here it is very “no-no-no” it needs to be a local business but you need other people to be involved and it is not easy to say “hey I have these great ideas and I want to produce pre-cast concrete slats” ... There are restrictions on doing new things. Everyone has to follow the rules the way how it should go.”

*What would make Kazakhstan more innovative?*

“Government regulations. If you set up regulations that make it easy to set up business it’s a huge step forward.”

“If it’s easy to fire people then it makes it easy to take the risk to have the idea “I think it’s gonna work but I don’t know for sure” I wanna get two people onboard and see how it runs. If it’s not moving well with one then I am gonna get rid of that one

and then just the two of us will go. Well, that's not possible. If I hire somebody then you hire them for life. I am not fun of firing and hiring people but I think it makes it difficult and it hinders innovation. If you can't fire people, then it's a big issue – it makes you less flexible.”

“It's good that a lot of money was spent on education. Although it's a long-term project but with time it will show the results.”

“I think a lot of people who are capable of starting up businesses and being innovative, with the capability to do it, need a better regulatory framework, better tax structure that encourages people to take risks, take a chance, experiment with business.”

“I think the larger population that is capable for that they may be capable but they just can't do it here. I know some people who had a Bolashak scholarship and had exchange programs, that went to top universities in the USA and other countries and they are very “sharp” and their number 1 in their career plan is to plan a job in the USA, because they feel like they will have more opportunities there. So that speaks to this feeling of “boxed in and hands tied”.”

“Another example of regulatory: if I want to order a piece of equipment which is not on the approved list of equipment then I may not succeed although it's a very simple piece of equipment. It is just crazy difficult. And if I am facing those difficulties although I have resources of a major corporation behind me to bring it in, you can only imagine what an individual or small start-up company must be faced trying to do something like that.”

### **3.4.3 Qualitative survey results (focus group participants) - some questions and answers are included below**

*Do you consider yourself to be innovative?*

Six of the respondents consider themselves to be innovative, one not so, and one in part innovative.

*Can you define innovation?*

All of the respondents were able to define innovation. For example, innovation is seen to be, according to one respondent, the “introduction of new things (technology,

technique, idea, types of management and governance) in various sectors of human activity, which will ensure improvement of the quality and effectiveness of these activities.”

*What does being innovative mean to you?*

As concerns being innovative, this means, according to one respondent “to have an open view of the quality of life upgrade, have an interest in new technologies and development, and have a desire to develop a new, efficient, helpful [product or process] and strives to improve and change the old.” While all of the respondents answered what being innovative means to them, the majority of the respondents did not consider being innovative as being able to produce innovation – rather, the general consensus was that being innovative means being open to new ways, or having a desire to try and use new things.

*Is Kazakhstan naturally innovative?*

On the subject of Kazakhstan being naturally an innovative environment, the opinions were divided. One respondent stated that “[Over] the past 20 years, Kazakhstan has become more progressive, but [it is] still very far behind the countries of Europe and America.” Another answer was simply “Not at all”. Yet another respondent stated that “Kazakhstan is a young country compared with other countries. Independence of the country this year [2016] will be 25 years old. And in that short period the country very quickly moved forward in development. Huge development steps evident in such sectors as economy, trade, technology, political relations and communication, management, and much more. The people of Kazakhstan are committed to development, innovation and quality of life.” Another respondent stated, as concerns Kazakhstan being innovative: “In my opinion, no. But there are such areas where we are innovative. And [we are] trying to find new ways suitable to us.”

*What is the best way to innovate [in Kazakhstan]?*

One respondent stated clearly that: “For Kazakhstan it would be better if people changed their perception, if people stopped mixing work, friendship and family relationships.” Another respondent stated that: “The best way for innovations in Kazakhstan will be the training of qualified personnel, who will be opened and [have] a new look, [to] implement and develop its own technology (products), to develop

enterprise development strategy (in terms of innovation), to improve the management system, develop international relations (training and training of personnel) and financial support from the state of young innovators.” Yet another answer was: “Give freedom of thought and tasks to people where possible. And it is not [in] trying to punish innovation.” Another answer was that for innovation to occur, investors are key. Furthermore, a respondent stated, industries in which to innovate must be chosen carefully, innovation promoted, and innovations in more developed countries observed, which may be implemented locally, after adjusting with regards to suitability for Kazakhstan and its culture.

#### **3.4.4 Qualitative survey results (professionals in industry) - some questions and answers are included below.**

*Do you consider yourself to be innovative?*

The answers to this question were quite surprising. Of the twenty respondents, only four consider themselves to be innovative, with another two considering themselves as being relatively innovative. Two other respondents are trying to be innovative. One additional respondent is innovative at times. Thus, 11 respondents answered simply that they are not innovative. One answer was: “I am not very innovative, but I am working on it. Thankfully, at the company we work for such behaviour is appreciated.”

*Why should we be innovative?*

One respondent, who does not consider him/herself to be innovative, stated that: “From my point of view, it is rather advantageous to be an innovative person. You become very flexible and gain an ability to adapt to rapidly changing environment[s]. Therefore, innovative person/people are more viable during our times.” The same person commented that being innovative means: “Not being afraid to say “yes, nobody does it, so what?... I will”. Arousing passion in oneself, and in others as well, to improve something. Being able to find the right people, teach them, motivate them and work with them in a team”.

*Is Kazakhstan naturally innovative?*

According to one respondent: “I think we are more conservative, but it’s not something “natural” as we can change this by widening our minds. I see more and more young people trying to open their own businesses and it’s good. The ones that are not updated, will fail and this will urge them to bring new things. This will lead them to innovation.”

### **3.5 Discussion and conclusions in view of the literature and the field research**

Kazakhstan has made tremendous progress according to a number of indicators (UNDP-Kazakhstan, 2015; World Economic Forum, 2016) but still has some distance to cover in terms of its innovation capability (Javidan, 2004). For innovation to increase in society a meritocracy has to be in place (including making the firing of people from firms possible) – people must be prepared to disagree and be evaluated and receive feedback for their endeavours. Open and direct communication will be a necessity but may also be detrimental to the highly valued harmony in Kazakh society. This sort of culture change will involve changing deeply-embedded values and behaviours and thus will require a concerted effort at the highest levels in Kazakhstan. The government will have to promote nation-wide change programs to promote innovation (especially as regards regulations for start-ups, tax incentives, the purchasing of equipment, among others) in a nation which is very reliant on its natural resources. Far-reaching change may take more than a generation to be implemented, but the current investment and importance attached to education (Aitken, 2009) is seen to be very positive. “Since 2000, over a seven-fold increase in government spending on schools and universities which amounts to 4 per cent of GDP [means that] every Kazakhstani child now gets 12 years of primary and secondary education. The nation [...] claims to rank 14<sup>th</sup> in the world league tables of country-to-country educational ratings” (Aitken, 2009, p.195). However, the education system in Kazakhstan has also been criticized for being outdated and subject to bribes from students’ parents (Aitken, 2009). A lot has indeed already changed, however, with Kazakhstan now being placed 42<sup>nd</sup> in the Global Competitiveness Index (a top 50 ranking which was an objective announced some time ago, in Aitken, 2009). Science and technology are areas of increasing importance in Kazakh society, as the participants in the student focus group and survey exemplify, which is encouraging to those who want to see more progress and

change in Kazakhstan. Furthermore, “under the Bolashak program, 3,000 young Kazakhstanis a year are awarded scholarships which enable them to study for degrees at international universities... such as Oxford, Cambridge, Harvard, MIT, the Sorbonne and Moscow Central” (Aitken, 2009, p.197), among others, and this can only be a good sign for Kazakh society and for innovation in particular – we may only hope that there will be no “brain drain” – defined as “the phenomenon of abandonment of a country in favor of another by professionals or people with a high level of education” (Aspen Institute Italia, 2012, p.6) – due to better pay, better expectancy of living conditions, and better expectancy of a professional career (Aspen Institute Italia, 2012) – and that the highly educated will want to return and have careers in Kazakhstan. Additionally, as one survey respondent stated, entrepreneurship is increasing in Kazakhstan, in particular by younger people, and they will be forced to be innovative, to stay competitive and survive, which is a sign of change. It will also be necessary for decision-makers at the highest level to loosen the rules and restrictions to make life easier for those entrepreneurs to follow their dreams in Kazakhstan, which will lead to a bolstering of the economy.

Innovation in Kazakhstan may actually be of added importance as the urgency for change may be more real and pressing than one might have expected. For example, the oil crisis, at present, has meant that Kazakhstan’s oil fund has been used by the government, in view of costs needing to be paid for, and may even run out (Clark, 2016). If the crisis persists new sources of revenue will be needed, making far-reaching change all the more a requirement to secure advances in quality of life and living conditions in Kazakhstan.

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## **4. General conclusion**

In article 1 we discussed innovation in traditional societies and suggested a model for making Kazakhstan more innovative. The establishing of clear boundaries for change will tranquilize the more conservative groups in power. On its path to a more democratic environment Kazakhstan must view change as both positive and necessary, and as a means to capitalize on its significant investment in education and so as to avoid a “brain drain” (Alam and Hoque, 2010; Aspen Institute Italia, 2012), an aspect mentioned in the research in article 2. Young and ambitious Kazakhstanis will want to put their education to good use and if the country is unable to provide the expected living conditions and professional fulfilment and advancement they will probably emigrate. The younger generation, educated abroad at some of the best higher education institutions in the world, must see that they have a future in Kazakhstan, which needs to embrace entrepreneurship in society and provide opportunity for growth. Furthermore, more mobility and less rigidity, as concerns higher education qualifications, is necessary. For example, in the United Kingdom, having a first cycle degree in history (a well-regarded course, which requires much reading and writing and thus high levels of motivation) will not limit career options and a student with such a qualification may go on to being a strategic management consultant (e.g. with McKinsey & Company) or a specialist in financial services (e.g. with Morgan Stanley). Such flexibility in Kazakhstan is not possible, as of yet.

Additionally, a meritocracy goes against current national Kazakhstani values and norms, whereby people advance and do well based on performance evaluations and feedback from their effective task execution. At present, in Kazakhstan, one has, for example, “jobs for life”, which makes starting a business difficult, for the younger generation, who need more flexible labour laws (in case they need to lay off employees for the enterprise to survive). Also, less regulations are needed for the purchasing of equipment and other essential items in an economy which needs to be more agile and responsive to market requirements.

Competitiveness has to do with innovation (Porter, 1980), but there must be a system and a structure in place in order to promote it. This will require decision-makers at the highest level to make for a more transparent work environment. Such change may take several generations, as Hofstede (2001) suggests, to also change leadership styles from autocratic to democratic and participative. The urgency for change may however be greater than expected, due also to the oil crisis at the time of writing: “Kazakhstan’s \$64 billion oil fund could run out of money within six or seven years as slumping oil prices cut revenue and the government spends its savings” (Clark, 2016). We are thus confident that Kazakhstan will rise to the challenge of greater innovation in society and look forward to more research in this area – suggesting that such research involve a larger scale study, involving more people from Kazakhstan – so as to ascertain their views and perspectives on the future of this very large and beautiful country.

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## 5. ANNEX I

### News items (1 & 2)

CISION

ID: 63827554

Jornal de  
Notícias

02-04-2016

Tiragem: 74277

País: Portugal

Period.: Diária

Âmbito: Informação Geral

Pág: 24

Cores: Cor

Área: 25,50 x 11,33 cm²

Corte: 1 de 1



# O Cazaquistão é longe mas esteve perto

**AVEIRO** Fica a mais de sete mil quilómetros, mas, ontem, esteve tão perto. O que é o Cazaquistão? Foi para responder à pergunta que um grupo de alunos cazaques, a estudar na Universidade de Aveiro (UA) através do programa Erasmus, organizou um dia que desse a conhecer o seu país. Houve curiosidades para mostrar, muitas imagens e uma degustação de comida, em que saltou à vista uma iguaria que apenas os visitantes mais corajosos provaram: carne de cavalo.

Madina Artykbayeva, de 23 anos, chegou a Aveiro há quatro. E gostou tanto que ainda se mantém na cidade da ria, a fazer o mestrado

em Gestão. Passa um mês no Cazaquistão, onde trabalha, outro em Portugal, junto ao mar de que tanto gosta. E foi ela quem decidiu, por iniciativa própria, organizar o "Dia do Cazaquistão na UA". "Não temos embaixadores entre o meu país e Portugal. Por isso, juntamente com a reitoria da universidade, queremos estreitar os laços entre os dois países. Queria que as pessoas conhecessem o Cazaquistão. Muita gente olha para mim e diz que eu devo ser chinesa ou japonesa", explicou Madina.

Boursak, chak chak ou kurt. São nomes estranhos, à partida, mas que denominam iguarias cazaques típicas, confeccionadas pelas estu-

#### curiosidades:

##### "Ambos são hospitaleiros"

● Para Madina, apenas existe uma semelhança entre Portugal e o Cazaquistão: "São ambos povos muito hospitaleiros, que gostam de receber bem e de ajudar. Tudo o resto é muito diferente", garante.

##### No coração da Eurásia

● Com 18 milhões de habitantes, o Cazaquistão é 30 vezes maior que Portugal e pertence à Europa e à Ásia. É independente apenas há 25 anos e Astana é a capital mais jovem do Mundo. É o maior produtor de urânio.



Madina (terceira da esquerda) juntou-se a um grupo de oito alunos de Erasmus

dantes do grupo, durante toda a noite, para que ontem estivessem prontas para os visitantes provar. Mas foi a "kazy" aquela que mais espanto causou. É carne de cavalo, muito apreciada no país em

questão. "Tem um sabor diferente, como se fosse carne defumada. Mas tem um gosto bem bom", garantiu Lucas Lima, brasileiro, um dos poucos que tiveram coragem de provar. SALOMÉ FILIPE

News item 1 – *Jornal de Notícias* – About the Kazakhstan Day at the University of Aveiro

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últimos mais vistos

Antigo aluno do DEGEIT é finalista do Prémio MUDA

Helena Nazaré em destaque no Click

IT abre candidaturas para quatro bolsas de Iniciação Científica em Engenharia Eletrónica e de Telecomunicações

Provas de Agregação em Biologia de João António de Almeida Seródio

Provas de Doutoramento em Música (3º Ciclo) de Gilvano Dalagna

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notas de imprensa

#### Campus

Esta sexta-feira, 1 de abril

### Alunos cazaques da UA promovem "Dia do Cazaquistão"

30.3.2016

Partilhar 0

Tweetar



Um grupo de alunos cazaques que se encontram a desenvolver os seus estudos na UA promove esta sexta-feira, 1 de abril, na Biblioteca da UA, o Dia do Cazaquistão. Para além de um momento de degustação de alguns alimentos e bebidas típicas deste país

transcontinental localizado na Ásia Central, a iniciativa integra uma exposição de cartazes e de imagens ilustrativas da sua cultura, do seu quotidiano e das suas tradições.

A iniciativa abre às 10h00 e encerra às 15h00. O momento de degustação está agendado para as 12h00.

Neste momento, a UA acolhe nove alunos cazaques, para além de estudantes de doutoramento que estão na UA ao abrigo de outros regimes.

Oito desses alunos chegaram em março deste ano da Kazakh National Research Technical University para passar três meses nesta instituição a realizar parte dos seus estudos em mobilidade em diferentes áreas do conhecimento. Dois desses alunos estão a desenvolver trabalho de doutoramento nas áreas da Física e dos Materiais e Cerâmica e os restantes seis estudantes frequentam cursos de mestrado nas áreas de Ambiente, Geociências e Turismo.

Madina Artykbayeva chegou a Portugal em 2012. A aluna frequenta o Mestrado em Gestão, no Departamento de Economia, Gestão, Engenharia Industrial e Turismo.



#### tags

Dia do Cazaquistão

#### evento relacionado

Dia do Cazaquistão na UA  
1 abr > 10:00 > 15:00 > Biblioteca da UA

News item 2 – *Jornal UA Online* – About the Kazakhstan Day at the University of Aveiro