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Cultural and Environmental Factors Promoting Innovative Activities in Digital Economy: The Comparative Studies between South Korea and Russia*

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We perform comparative analysis of Russian and South Korean potentials in regard to the peoples' readiness for innovative activities. The two countries appear similar in several dimensions: strong centralization, prevalence of large companies (Chaebols and state corporations), high prestige of academic education, high level of paternalism, etc. We devise the qualitative method for assessing the potential based on cultural characteristics, innovations environmental and educational factors. The results suggest moderate potentials for both South Korea (75.5%) and Russia (66.1%). Among the cultural factors, high levels of uncertainty avoidance and power distance are seen as the barriers for the potential's increase.

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1. INTRODUCTION

The concept of sustainable development has attained high priority in the international research agenda in the 21st century. Its emergence and development was due to a number of problems, including some critical ones that threatened the very existence of the humankind. Several developed countries institutionalized selected notions of the sustainable development concept as foundational ideology, so it started getting support from durable, balanced, ecological, social and economic decisions. The transition to innovative economic growth and smart society, to ecology protection as the key directions of sustainable development, is eminent worldwide.

Russia and South Korea appear similar in several dimensions: strong centralization, prevalence of large companies in economy, faint entrepreneurship culture and high prestige of academic education, high level of paternalism, high expectations of the state involvement, weak venture market (Bikkulova, 2016). South Korea and Russia are key partners in the Asian Pacific region: the trade turnover with Russia was 4th largest for South Korea for this region in 2017, but already 2nd largest in 2018. The countries actively cooperate and implement projects in energy, education, research, finance and investment, fish production and logistics in the Far East, etc. Russia and South Korea has announced 2020 as the Year of cultural exchanges and signed the memorandum of cooperation in social security, while another memorandum has been concluded by the Russian Ministry of Economic Development and Korea Ministry of Science and ICT, about cooperation in innovative fields. However, successful innovative development of the two countries is only possible through intensive and smart employment of their human capital.

The changes in the system of societies' values, in the population's quality of life is due to the needs of the oncoming technological paradigm that is founded on complex interactions and coordination of cognitive, physical and information technologies, nanotechnologies, computers and communication networks, new types of interpersonal communications, such as social and

geo-social networks. The concept of smart society characterizes post-industrial stage of society development, where the information becomes the most important resource. Free access for everyone to global information networks, development of global mass-communications, network interactions and remote work radically re-shape the people's view of time and space, which in turn influence the structure of their needs and behavior models. More and more people integrate into smart society, cooperating within nation-wide networks, organizing their work activities based on collective intelligence. Flexibility, creativity, personal orientation, and the creation of the "society of the dream" have become the key values. Correspondingly, human resources management is oriented towards the use of not merely competence-based knowledge, but of creative one — based on cooperation and partnership. So, the requirements towards the work resources involve not just possession of the key skills, but also of the collective networking competence. Ensuring smart development depends upon the transition to smart society, the readiness of the people and their participation in innovative activities. Thus, it is necessary to identify the details of the competence-forming process in the new generation of employees, essential for innovations in the digital economies.

So, our paper is dedicated to the study of the people readiness for innovative activities – the factor that is known to contribute a lot to today's human capital. Although we believe that the proposed qualitative method for assessing the potential can be applied for many countries worldwide, in this work we consider Russia and South Korea — two nations that are notably both different in economic development and have many cultural similarities, and whose comparative analysis is currently gaining momentum (Nah and Den, 2017).

2. METHODS AND RELATED WORK

Culture is integrative by nature, but communities of people can vary

significantly, as the cultural parameters coexist reinforcing or weakening one another, in complex functional interaction. In the digital economy, the inter-cultural interaction expands, as geographic borders are largely erased. This is caused by the relation of the concrete cultures in contact, which are in the dynamic process of permanent development. Without studying verbal and non-verbal signals from various cultures and without the inter-cultural communication, the organization of innovative activities in the networking environment is impossible. The cultural parameters, on the one hand, can interfere with acceptance of innovations, but on the other hand disturbances in the inter-cultural communication will cause failures in the work of networking teams. Thus, the cultural parameters must be considered as factors in the critical competences formation process.

Existing research works suggest that economic development is reflected in the collective programming of the mind, while selected cultural parameters do contribute to the innovative development. Hall (1976), who was the first to introduce the concept of inter-cultural communication, divided cultures by their communication types into high-context (most of the information is communicated implicitly) and low-context ones (most of the communication is evident). Inkeles and Levinson (1969) identified the three typical analytic parameters: relation to authority; conception of self, including the individual's concepts of masculinity and femininity; and primary dilemmas of conflicts and ways of dealing with them, including the control of aggression and the expression versus inhibition of affect. Hofstede developed the typology of cultural measures based on factor analysis of the collected data, describing the influence of a society's culture on the individual values of its members, and the influence of the values on the members' behavior. The Hofstede's model initially had only four dimensions, which were later confirmed and supplemented by more (Gregg and Banks, 1965; Adelman and Morris, 1967; Inkeles and Levinson, 1969; Lynn and Hampson, 1975; Hofstede and Bond, 1988; Minkov, 2007). Ultimately, there are six dimensions (Hofstede and Minkov, 2010):

- **Power distance index** that reflects the fundamental problem of inequality;
- **Collectivism vs. individualism** that explains the integration of individuals into groups;
- **Masculinity vs. femininity** that reflects the division of emotional roles between men and women;
- **Uncertainty avoidance index** that reflects the society's tension in relation to the coming of unknown future;
- **Long-term vs. short-term orientation** that defines the focus of attention for the peoples' actions: future, present or past;
- **Indulgence vs. restraint** that reflect fulfillment of human needs related to joy or self-control.

Research performed by IBM has shown that (a) "feminine" values are less varied between the societies than "masculine" ones; (b) "masculine" values in every country vary between rather assertive and competitive-aggressive, quite different from feminine, to modest, "caring" ones that are close to feminine. The assertive side is called "masculine", while the modest, caring side is called "feminine". Women in feminine countries are oriented towards the same modest caring values as the men. In masculine countries, their behavior is also assertive and aggressive, but not as much as men's.

The *Inglehart-Welzel cultural map* characterizes the differences in values worldwide, particularly on the scale from traditionalism to rationalism and from survival to self-expression. The above characteristics must be considered in the employees' or future employees' behavior models.

2.1. The Critical Competences

Researchers and practicians have identified critical competences that are required by the modern economy or will be required in the nearest future. According to the survey by the World Economic Forum (WEF), the following new skills will be critical for success in the new competitive

Table 1 Critical Competences in the Digital Economy (WEF)

N	2015	2020
1	Complex Problem Solving	Complex Problem Solving
2	Coordinating with Others	Critical Thinking
3	People Management	Creativity
4	Critical Thinking	People Management
5	Negotiation	Coordinating with Others
6	Quality Control	Emotional Intelligence
7	Service Orientation	Judgment and Decision Making
8	Judgment and Decision Making	Service Orientation
9	Active Listening	Negotiation
10	Creativity	Cognitive Flexibility

environment (table 1).

The *Book of New Professions* already describes several supra-professional competences required in the digital transformation of economy. This is system thinking, inter-industry communication, project management, lean production, programming, robotics, intelligence, client orientation, multi-cultural and multi-language skills, working with people, working in ambiguity, and artistic creativity (Luksha *et al*., 2015). The new universal leadership competences include: personal adaptiveness, altrocentrism, network communities management, high awareness, analytics for decision-making, prompt implementation, "experience prototyping" thinking (Rakovskaya, 2006). Voogt *et al*. (2013) and Hobbs (2010) believe that digital literacy is the foundational competence in the 21st century. Araya and Peters (2010) write about forming competences in scientific synthesis, art, engineering and design. The *Competences 2025* target model developed for Russia contains three groups of competences:

1) Cognitive skills: self-development, organization, management skills, results attainment, solving non-standard problems, adaptiveness.
2) Social-behavior skills that consist of communicational, interpersonal, and inter-cultural characteristics.
3) Digital skills that reflect the capabilities in creating information systems and managing the information (Butenko *et al*., 2017).

The analysis of the target competencies model developed in Russia for the year 2025 based on consensus of experts from Sberbank, RosExpert/Korn Ferry, Higher School of Economics, WorldSkills Russia, Global Education Futures, and BCG suggests that Russian employers consider the development of universal competences of employees in the Knowledge category the most important. The second in importance were communications (including inter-personal and inter-cultural), while the implementation of routine cognitive tasks were considered the least important.

In order to study the societies' readiness for innovative activities in digital economies, we need to identify the barriers and reserves for the employees' competencies development.

2.2. The Assessment Method

In systems analysis, the problem is seen as a gap between the ideal or the target state of the analyzed object and its currently attained status. Structuring the problem implies solving the dual task (Shalanov and Aletdinova, 2017):

- Assessing the degree of the object's attainment of the ideal state;
- Evaluating the significance of parameters in the assessment.

Let x_{jk}^{0} – is the factual value of the *j*-th parameter of the *k*-th block (a logically united group of parameters); $\tilde{x}_{jk}$ – is the target (ideal) value of the *j*-th parameter. Let us introduce variables in the formulas (1)-(6).

1) The relative measure for attaining target value for *j*-th parameter in the *k*-th block is calculated:

$$\beta_{jk} = \frac{x_{jk}^{0}}{\tilde{x}_{jk}}. \quad (1)$$

2) The weight (importance) for the *j*-th parameter in the qualitative assessment in the *k*-th block is calculated:

$$\alpha_{jk} = \frac{\beta_{jk}}{\sum_{j=1}^{n} \beta_{jk}}. \quad (2)$$

3) The complex assessment of the *k*-th block is:

$$C_k^0 = \frac{1}{n} \sum_{j=1}^{n} \frac{x_{jk}^0}{\tilde{x}_{jk}}. \quad (3)$$

4) The relative measure of attaining the target status for the *k*-th block is determined:

$$\beta_k = \frac{C_k^0}{\tilde{C}_k}. \quad (4)$$

5) The weight (importance) for the *k*-th block in the integral assessment of the system's status is evaluated:

$$\alpha_k = \frac{\beta_k}{\sum_{k=1}^{m} \beta_k}. \quad (5)$$

6) The integral assessment for the system per all the blocks is determined:

$$C^0 = \frac{1}{m} \sum_{k=1}^{m} C_k^0. \quad (6)$$

The obtained assessments allow measuring the degree of attaining the target value and set priorities in the development of employees' competencies and in correcting their behavior models for innovative activities.

The employees' readiness for innovative activities denotes their inclination to use their human capital to implement a certain novelty, to perform technological and organizational transitions, to perpetually self-improve and adapt. This readiness can be assessed through the presence of the following

indicators:

- employee has up-to-date education and is actively involved in life-long educational process;
- employee has the characteristics beneficial for innovative activities;
- the country has innovative environment;
- the country has well-developed system of communications, diffusion of knowledge and technologies.

So, the above indicators help us in choosing the variables for the potential function.

As explanatory variables for the potential function we suggest using the cultural characteristics affecting the innovative activities in digital economies. These are based on the Hofstede's model and the Inglehart-Welzel cultural map, plus the country's attractiveness for talents, the education index, and the information-communication technologies (ICT) development index. The dependent variable will be The Global Innovation Index calculated according to the method devised by INSEAD international business school that involves 82 variables divided into 2 groups: the attained results, available conditions for innovations, and the final results of implementing the innovations. The first group contains assessments for institutes, human capital, research, infrastructure, internal market development and business development. The second group reflects the results of innovative activities and contains assessments for the technology and knowledge economy development, the results of creative activities. The Global Innovation Index is then calculated as the ratio between the costs and the effect, i.e., the above groups.

As additional methods, we used correlation and regression analysis based on Mincer's model and surveying.

3. RESULTS

Let us identify and analyze the variables that will be included in the potential function. The analysis of criteria for the Hofstede's model provides the values as shown in table 2 (Minkov and Hofstede, 2014).

Power distance in Russia (93) is significantly higher than in South Korea (60), but the relevance of this parameter for our purposes seems rather doubtful and ultimately it won't be included in the calculation.

Uncertainty avoidance is not the same as risk avoidance; rather this parameter reflects how well the society can accommodate ambiguity. It shows how calmly the culture members perceive unregulated situations — the new, novel, unexpected and different from the usual way of things (Hofstede and Minkov, 2010). Cultures that accommodate ambiguity well are more tolerant to opinions that are different from the usual ones, they tend to introduce fewer rules, and they rely on empiricism and relativism allowing different lines of thought to coexist. Correspondingly, such societies will be also tolerant to novelties, so this criterion should be included in the model. For both South Korea and Russia the values are quite high (85 and 95 respectively) and suggest alertness towards new ideas, methods and technologies.

Individualism, as opposed to collectivism, is seen as a feature of society, not a person, and reflects the degree of society members' integration into groups. In individualist cultures, the bonds between people are not firm, as

Table 2 Comparative Analysis of Korean and Russian Cultures in the Framework of the Hofstede's Model

Criterion	Countries	
	South Korea	Russia
Power distance	60	93
Uncertainty avoidance	85	95
Individualism	18	39
Masculinity	39	36
Long-term orientation	100	81
Indulgence	29	20

everyone is mostly responsible for himself/herself, possibly also for close relatives. The values for the criterion suggest that South Korea (18) is significantly more collectivist than Russia (39).

Masculinity, as opposed to femininity, is also a social, not a personal feature. It reflects the distribution of values between the gender groups, and is nearly identical for South Korea (39) and Russia (36).

Long-term orientation is the criterion for positioning cultures in the scale from persistence, prudence, strong status hierarchies in relations, consciousness, to mutual social responsibilities, respect for traditions, being afraid to "lose face", personal sustainability and stability. This parameter has strong correlation with modern economic growth, and is maximal for South Korea (100), while for Russia it's still quite high (81).

Indulgence for desires is typical for societies where the main and natural human needs related to hedonism and having fun are fulfilled freely. On the opposite, restraint is supported by control and introduction of strict social norms — so, South Korea (29) is more free (possibly, somehow unexpectedly) in this respect compared to Russia (20).

On overall, the Hofstede-model based analysis of cultures suggests that both Korean and Russian people are more oriented towards struggle for survival at the expense of self-expression, i.e., they seek stability. The assessments of the psychophysical characteristics in the framework of the Inglehart-Welzel cultural map suggest that both Korean and Russian cultures are characterized by high power distance and uncertainty avoidance (Inglehart and Welzel, 2010). This is supported by the cultures' analysis per the Hofstede's model.

To evaluate the potential of the peoples' readiness for innovative activities in digital economies, we need to consider the uncertainty avoidance, as a characteristic that hampers innovative activities. Previously, we collected Russian employees' psychometric data through survey based on methods by Schubert *et al.* (1999) (risk propensity assessment), Ehlers (1965) (personal success motivation) and Orlov (1991) (desire for achievements). Schubert *et al*. (1999)'s method allows making conclusions on people's behavior in

situations involving uncertainty, requiring violation of pre-set norms and rules. It is often utilized in evaluating candidates for jobs involving risks, but is also useful for assessing entrepreneurship qualities. The survey consisted of 25 questions, for each of which 1 out of 5 possible answers had to be chosen. Ehlers (1965)'s method for assessing success motivation was designed for diagnosing personal motivational focus for success achievement — the concept initially introduced by Heckhausen (2013). This survey included 41 questions, with 2 possible answers for each one. Orlov (1991)'s method for assessing desire for achievement is generally used in recruitment: for diagnosing work motivation, target qualities in employees, etc. The corresponding survey consisted of 23 statements and 2 possible answers for each one.

The performed regression and correlation analyses for the Mincer's model and based on the data surveyed with Russian employees per the psychodiagnostics methods, identified the following cognitive characteristics of employees affecting the innovative activities: risk propensity, motivation to achieve goals, and motivation for success (Aletdinova and Bakaev, 2017). Our research had shown that risk propensity corresponded to entrepreneur skills in employees, meaning that a person can take calculated risks and introduce innovations. In this, risk propensity needs to be supplemented with motivation for success or motivation for achievement (Aletdinova, 2011); otherwise a project can get abandoned half-way, due to unstable personality of its manager. Meanwhile, the survey undertaken with selected Russian employees showed that only 15.11% of them possessed the risk propensity quality (see table 3). We'd like to note that the characteristics are

Table 3 The Results of Psychological Diagnostics for Russian Employees (2014-2016)

Type of employees	Sample size	Risk propensity (%)	Motivation for success (%)	Motivation for goal achievement (%)
Full-time (standard employment) workers	470	15.11	36.17	34.26

independent and do not add up to 100% (e.g., some of the subjects had none of the characteristics whatsoever).

Less than 5% of participants in the survey possessed a combination of the two characteristics — risk propensity plus motivation for success, or risk propensity plus motivation for achievement. The risk propensity has to be viewed as an uncontrollable factor, so it will be excluded from the potential function. The high level of long-term orientation in the Hofstede's model characterizes personal sustainability and stability of employers, and its value correlates with motivation for achievement, particularly in innovative activities. So, for the potential function we select the two factors from the Hofstede's model: uncertainty avoidance and long-term orientation.

The next index characterizes the environment that stimulates employees towards innovative activities — the Global Talent Competitiveness Index of the country (Lanvin and Evans, 2017). The corresponding rating includes 118 countries, with South Korea being in top-30 and Russia being an outsider in the 107th position. Another important variable is education level, and in the global Education Index South Korea had the 18th position, while Russia is merely in top-50 (49th position). In the Global Innovations Index, South Korea had 57.7 points in 2017 (11th position), while Russia had 38.8 (45th position). Another important constituent in the Global Innovations Index is the ICT development level, considered among infrastructure-related indexes. It is important in studying the peoples' readiness to innovative activities, as it characterizes the creation of environment in the country, the system for communications and free diffusion of knowledge and technologies. South Korea is among the leaders in the 2nd position, while Russia is currently 36th. The overall data on the countries' positions in the indexes and the years they were assessed are provided in table 4.

The analysis for contribution of education, literacy and numeracy to the variation in wages has shown that in South Korea the return on education is the highest, work experience comes second, and personal characteristics of the employees are the last. Proficiency (literacy and numeracy), field of study, etc. contribute very little to the wages (Kankaraš *et al*., 2016), which

Table 4 Selected Indexes of the Peoples' Readiness to Innovative Activities in Digital Economy, 2017

Index	Countries' Sscore (rank)	
	South Korea	Russia
Global Talent Competitiveness Index	55.89 (29)	45.03 (56)
Education Index	0.867 (18)	0.816 (49)
ICT Development Index	91.6 (2)	69.7 (36)
Global Innovations Index	57.7 (11)	38.8 (45)

Sources: Lanvin and Evans (2017) and Dutta *et al*. (2017).

is not typical — e.g., in Japan the greatest return is on the personal characteristics. The corresponding research in Russia suggests varying return on education and work experience, depending of the considered time frame and geographic region. The general human capital, represented as variables "average education level" and "share of employed who have high education", has positive and statistically significant effect on average wages. Calculations performed based on the standard Mincer's model found that return on education in Russia is about 82% (compared to secondary general education), i.e., about 16% per year in education (Gimpelson and Lukyanova, 2006). Our own calculations in 2017 showed that the return of education varies due to geographic region, amounting from 4.7% to 11.7% per year. In Northern regions of Russia, work experience has notable positive effect on wages, with the increase of more than 2% per year of experience. As far as we are aware, there were no nation-wide research undertakings in studying the effect of employees' psychophysical characteristics on wages.

Let us specify the ideal values for the variables. Let's assume both countries seek to take the 1st positions in the Global Innovations Index, the Education Index, the ICT Development Index, and the Talent Competitiveness Index. The long-term orientation ideal will be set as 100, while uncertainty avoidance to 0. Table 5 summarizes the ideal values for the variables; the actual values are the indexes, levels and criteria (table 2 and table 4).

Table 5 Ideal Values for the Variables in the Model

N	Variable	Ideal Value
2	Education Index	1
3	Global Talent Competitiveness Index	100
4	ICT Development Index	100
5	Long-term orientation	100
6	Uncertainty avoidance	1

For Uncertainty avoidance variable, the ideal value is set at 1, to avoid dividing by 0 in the calculations. The calculations for the potential function are presented in table 6 to table 8.

Table 6 Assessments for the Selected Cultural Criteria Block

Counries	Criteria	β_{j1}	α_{j1}
South Korea	Uncertainty avoidance	0.012	0.012
	Long-term orientation	1	0.988
Russia	Uncertainty avoidance	0.01	0.01
	Long-term orientation	0.81	0.99

Table 7 Assessments for the Employees' Innovation Activities Readiness Criteria Block

Counries	Criteria	β_{j2}	α_{j2}
South Korea	ICT Development Index	0.916	0.514
	Global Talent Competitiveness Index	0.867	0.486
Russia	ICT Development Index	0.697	0.461
	Global Talent Competitiveness Index	0.816	0.539

Table 8 Combined Assessments for all the Blocks for South Korea (K) and Russia (R)

Blocks	C_k^0		$\tilde{C}_k$		β_k		α_k	
	K	R	K	R	K	R	K	R
Culture	0.506	0.410	1	1	0.506	0.410	0.223	0.207
Innovative activities	0.892	0.757	1	1	0.892	0.757	0.394	0.382
Education	0.867	0.816	1	1	0.867	0.816	0.383	0.411

The combined assessments for the first block of parameters were: for South Korea $C^0_{1\,(Korea)} = 0.506$, i.e., the ideal value is attained by 50.6%, for Russia $C^0_{1\,(Russia)} = 0.41$, meaning the ideal value is attained by 41%.

The combined assessments for the second block of parameters were: for South Korea $C^0_{1\,(Korea)} = 0.867$, i.e., the ideal value is attained by 86.7%, for Russia $C^0_{1\,(Russia)} = 0.757$, the ideal value is attained by 75.7%.

There was only one parameter in the third block that shows the education level, so its values will be the same as the C^0_3 for South Korea and Russia. Let us use the values from table 6 and table 7, include the Education Index value into table 8, and calculate using the formulas (4), (5), and (6).

The final values were: for South Korea $C^0_{Korea} = 0.755$, for Russia $C^0_{Russia} = 0.661$.

Correspondingly the combined assessment of South Korea's people readiness for innovative activities in digital economy is 75.5%. Besides, we should note nearly equal weight of the two blocks: the environment (39.4%) and the education (38.3%). The block of the cultural characteristics although having lower weight (22.3%) is still important and should be included in the optimal smart society management mechanism.

For Russia, the combined assessment of the people's readiness for innovative activities in digital economy is 66.1%. The blocks have different weights, with education being the first (41.1%), the environment coming second (38.2%), and the cultural characteristics being third too (20.7%). Thus both South Korea and Russia are characterized by moderate level of the people's readiness for entrepreneurial activities.

To boost the Global Innovations Index, South Korea and Russia need to dramatically increase the people's readiness for innovative activities in the digital economies. The undertaken analysis suggests that the greatest reserves can be found in developing the employees' competences, since changing the cultural parameters are nearly impossible in short term. In South Korea, several development programs were already introduced: Smart Country Strategy, Smart Korea, Giga Korea, etc. (Oh and Larson, 2011). In Russia, the Strategy of Innovative Development until 2020 is being

implemented, as well as the Concept of Digital Economy Development. In the long term, it seems necessary to manage the cultural parameters starting from childhood, to continue enhancing innovative environment, to employ network interaction for amplifying the international communications and spreading the innovations culture.

4. CONCLUSIONS

Sustainable development can be ensured only through harmonious interaction between human and the biosphere, based on economic efficiency, ecological imperatives, spirituality, social responsibility and fairness. The Republic of Korea and Russia actively advance their innovation eco-systems and attain high indexes in such important fields as education improvement, research and development, labor productivity and high-tech products exports. The ongoing transition to digital economy and impossibility of sustainable development without innovations innovative activities specify new requirements towards human resources. Both countries implement dedicated programs for developing creativity, lateral thinking, and entrepreneurship in their citizens, starting from the very early age.

Modern countries seek to shape smart society, the society ready to produce innovations — and the “The Future Strategy for Smart Society, Smart Korea” has already been developed and is being introduced in South Korea. In Russia, currently certain elements of the smart society strategy are being established, and quite a lot of research papers have been published on this topic. In the current work, the authors identify employees’ competences that are crucial for innovative activities in digital economy. In our opinion, they allow identification of innovative smart-person’s psychological profile and can be organized into groups of cognitive, socio-behavioral attributes and digital skills. The authors proposed to assess the people’s readiness to innovative activities in digital economy through the formulation of potential, which included cultural characteristics as well as environment for the

innovations and educational factors.

The analysis of existing works suggested that the readiness potential is largely defined by the nations' cultural backgrounds, education level and the national innovative environment. In the current study of the potentials for Russia and South Korea, we used power distance and uncertainty avoidance as significant characteristics for national cultures. To assess the educational characteristics and the pace of adopting new technologies, we took the Education Index. For assessing the environment stimulating employees towards innovative activities, we relied on Global Talent Competitiveness Index and ICT Development Index (the three indexes are included in the well-known Global Innovations Index).

The analysis of psychophysical characteristics per the Inglehart-Welzel cultural map suggests that both Korean and Russian cultures involve high power distance and uncertainty avoidance. The analysis of the cultures per Hofstede's model also suggests that both people of both countries are oriented towards struggle for survival at the expense of self-expression, i.e., stability is actively sought. These features do not contribute to innovative activities, since they imply that the involved risk will be taken with alertness and reluctance. The data of survey undertaken with selected Russian citizens has shown that less than 5% of them had risk propensity, quite unlike the larger share (34%) possessing high motivation for success and goal orientation. The authors used the long-term orientation and uncertainty avoidance criteria of the Hofstede's model (as the ones representing motivation towards innovative activities) to reflect the cultural characteristics in the potential assessment.

Our assessments based on the 2017 data suggest that the potentials of the people's readiness to innovative activities in digital economy are 75.5% for South Korea and 66.1% for Russia (accordingly, the unused potentials are 24.5% and 33.9% respectively). These values are rather only above average, despite the high Educational Indexes for both countries and remarkable efforts by their governments in promoting innovative activities. The block of cultural parameters has significant weight in the assessments for both

countries — particularly, the uncertainty avoidance that hinders innovative behavior is high, which suggests the need for modifications in the social behaviors, to remove the barriers for innovations. We also recognize the need for further empirical studies based on Korean and Russian data to identify additional significant cultural characteristics and evaluate their effect on the potential of the people's readiness to innovative activities.

As literacy level in people is defined by education and enlightenment, entrepreneurship and business activities are known to be the moving force behind innovations. Practical experience demonstrates that interaction between the innovative and business politics stimulate labor productivity and ensures sustainable development in countries. In Republic of Korea, the integrated approach of entrepreneurship development is already being implemented. The analysis of the people's readiness for innovative activities undertaken in the current paper found moderate levels of the potential in South Korea and Russia. Ambitious plans in securing top positions in the Global Innovations Index and in ensuring sustainable economic development shift the approaches towards human capital development from personnel management to talent management.

Measures and policies for developing entrepreneur skills and competences needed for innovative activities in digital economy should by introduced in the early age for individuals, to adjust certain unfavorable national cultural characteristics. We believe that the life-long education systems that are already being advanced, special emphasis should be given to promotion of innovative entrepreneurship, research and engineering activities, and general risk tolerance. Technological development in the world increases the share of creative labor, while automation and robotics re-shape the labor market and wages, conceiving and eliminating some job functions and positions. People become more responsible for their self-development and professional growth, but they also need to be supported by the government. We argue for enlightening programs providing information on the future social, technological and economic development of nations, declining and booming industries, new job positions and prospective wage levels — everything

needed for adjusting the citizens' behavior and helping them make rational choices in their competences' development and professional activities.

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