

JOURNAL OF SECURITY AND SUSTAINABILITY ISSUES ISSN 2029-7017 print/ISSN 2029-7025 online 2017 March Volume 6 Number 3 http://dx.doi.org/10.9770/jssi.2017.6.3(9)

## ISSUES IN THE AREA OF SECURE DEVELOPMENT: TRUST AS AN INNOVATIVE SYSTEM'S ECONOMIC GROWTH FACTOR OF BORDER REGIONS (LATVIA-LITHUANIA-BELARUS)

## Olga Lavrinenko<sup>1</sup>, Nikolajs Jefimovs<sup>2</sup>, Jānis Teivāns-Treinovskis<sup>3</sup>

<sup>1,2,3</sup> Daugavpils University, Vienibas Str. 13, LV-5400, Daugavpils, Latvia

*E-mails:* <sup>1</sup>*olga.lavrinenko@du.lv;* <sup>2</sup>*nikolajs.jefimovs@du.lv;* <sup>3</sup>*janisteivans@inbox.lv;* 

Received 15 March 2017; accepted 20 November 2016

Abstract. The article is dedicated to the research and assessment of trust and partnership impact throughout the main authors of innovation cooperation - universities, business and state. This impact is put on the innovative cooperation's development of the border region (Latvia-Lithuania-Belarus) and production of innovative products and services in that region. The research region is consisting of the regions of Latvia (Latgale region), Lithuania (Vilnius region, Alytus region, Utena region, Panevezys region, Kaunas region), Belarus (Vitebsk, Grodno region, Minsk region, Mogilev region). Lack of attention to the above issues, related with border region, stresses the importance of the article. Innovations are key factor in long-term economic development of the region. The main condition for development is a purposeful formation and effective functioning of the territorial innovation system, in which one of the factors of its successful development is trust between participants of the system. The information base of the research is survey of 620 entrepreneurs of small and medium-sized enterprises in the border region.

Keywords: business environment, business activity, trust, partnership

Reference to this paper should be made as follows: Lavrinenko, O.; Jefimovs, N.; Teivāns-Treinovskis J. 2017. Issues in the area of secure development: trust as an innovative system's economic growth factor of border regions (Latvia-Lithuania-Belarus), *Journal of Security and Sustainability Issues* 6(3): 435–444. http://dx.doi.org/10.9770/jssi.2017.6.3(9)

JEL Classifications: A10, C10, C15

#### 1. Introduction

The leading role in the transition to sustainable development of the region plays scientific and technological progress. The achievements of scientific and technological progress not only pave the way to sustainable development but also help to identify mutually beneficial terms of cooperation between the involved parties.

A scientific interest to the problems of social cooperation between involved sides has increased in recent decades. It could be stated by the growing number of studies in this area. For example, the results of the study "Higher schools in the regions: the interaction of knowledge and practice" among the causes of insufficient efficiency of cooperation between Daugavpils University, entrepreneurs and municipalities in the Latgale region have been announced a lack of communication among social agents, the absence of common interests and motivation, as well as lack of joint solutions for regional development (Daugavpils University 2011)

Sustainable development – this is model of moving forward, which helps to achieve satisfaction of the vital needs of the present generation, without depriving future generations of such possibilities (Rio Declaration on Environment and Development). Today a key element of sustainable economic development are innovations

(Rosha, Lace 2015). In the EU development strategy "Europe 2020" sustainable development is defined as one of the goals, along with smart and inclusive growth. Among the objectives, that helps to achieve these goals, are mentioned objectives potentially associated with innovations - the flagship initiatives on the innovation union, on resource efficiency, and on industrial policy (European Comission 2010).

Introduction of innovations will not only accelerate the process of economic growth, but also will show a more efficient use of existing resources, which has a positive impact on the ecological situation in the country and will reduce the burden on the environment, without sacrificing the volume of national production (Gjoski 2011).

Trust and innovation are connected. Trust - the foundation for cooperation between the organizations (Lewicki, *et.al.* 1998). Understanding the connection between trust and innovation is very important for any organization (Burlakov 2015).

The aim of the article is to assess the impact of trust and partnership of scientific institutions, business and state on the development of innovative products or services in the Latvia-Lithuania-Belarus enterprises, that operates throughout the border region. The study was conducted in 2014 in the framework of the project "The Establishment of the United Entrepreneurship Support and Networking System for the Sustainable Latvia, Lithuania and Belarus Cross Border Cooperation" (B2B) funded by the cross-border cooperation programme Latvia-Lithuania-Belarus "European Neighbourhood and Partnership Instrument 2007–2013".

# 2. Methodology

The main concept of innovations in post-industrial society is Triple Helix Model. The concept of the Triple Helix Model or triple relationship (universities-industrygovernment) was developed in the 1990s by Henry Etz-kowitz (Stanford University) and Loet Leydesdorff (Amsterdam University). This partnership is a hybrid social construction, an apposition of spiral structures, similar to DNA molecules. The triple partnership adapts well to changes in the external environment (Etzkowitz, Leydesdorff 1995). In the 2000s this theory was used as a basis for national innovation systems in the number of countries from Scandinavia to Japan (OECD 2007); it has also been mentioned in the EU strategic documents as a new approach to integration processes and creation of a common knowledge market. The Triple Helix Model adequately identifies and measures the relationships of the participants of an innovation system – government, business and universities. There is no example in the world where the national innovation system would function effectively beyond the principles of the triple helix, where universities would not be in the centre of these events (Lavrinenko, *et.al.* 2015).



Fig. 1. Triple Helix Model

Source: Inzelt 2004; Katz, Martin 1997

Many specialists (Ljasko 2004; Skripkina 1998; Oganisjana, Surikova 2015; Rosha, Lace 2015; Raisiene 2012) notes, that the problem of trust between the different institutional forms is gradually coming to the forefront of research in the field of economic, social and psychological sciences. Other researchers (Blom, Melin, Sarno, Sarno 2005) pay attention to the fact, that during the conditions of the unfinished crisis, trust is an essential social capital. Companies, that have built relationships with the subjects of the social environment on the basis of trust, get a real advantage of that. Famous scientists (Doilj, Stern 2007; Kottler, Keller 2015; O'Shonessi 2002) point to the importance of trust in a paradigm shift in the process of interaction between participants of the system. Thus, there are certain expectations of trust (trust expectations), which, in a case of positive experience of common work, can be transformed into confidence, that cooperation between the parties will go on after the defined screenplay. John O'Shaughnessy notes, that trust could be earned only by establishing relationships, conquering a reputation and strengthening common values. Thus, trust – this is collection of some expectations of the party in relation to the interaction between the parties, stating, that it will act in accordance with the contractual agreements, respecting the principles of honesty and integrity.

In the socio-economic theory approaches to the study of trust have been developed in the works of R. Morgan (Morgan 1994), R. Bocquet (Bocquet 1997), T. Ambler (Ambler 1998), J. L. Bradach (Bradach 1989). Particularly important findings made by A.K. Ljasko in terms of defining the role of credibility in the field of innovation, as well as in transactions. Many researchers have neglected the study of confidence due to the fact, that trust is difficult to measure accurately (Lojeski, *et al.* 2006).

Factor of the uncertainty of relations and high degree of vigilance between the partners is present in the triple helix. Confidence improves predictability, adaptability and strategic flexibility (Lorenz 1988; Sako 1994; Young-Ybarra, Wiersema 1999), reduces operating costs and social complexity (Arrow 1974; Bidault, Jarillo 1997). Credibility and innovation are inevitably linked. Trust has been described as a fundamental component of co-operation between the organizations (Lewicki, *et al.* 1998). Safe environment with trusted relationships among participants of the triple helix promotes opportunities for greater authority and control. Weak trust can't create an innovation environment and innovation in common, but at the same time maximum trust does not guarantee a maximum of innovation. Thus, the relationship of trust and innovation are not linear (Shapiro, *et al.* 1992).

Basic data for analysis in the study of border regions have been obtained by means of the survey of 620 entrepreneurs, operating in the field of small and medium-sized businesses of the frontier regions of Latvia (Latgale region), Lithuania (Vilnius region, Alytus region, Utena region, Panevezys region, Kaunas region), Belarus (Vitebsk, Grodno region, Minsk region, Mogilev region) in the period from the April till June of 2014. The survey was conducted in the framework of the project "Creating a Unified System of Business Support and establishment of business contacts for sustainable cross-border cooperation of Latvia, Lithuania and Belarus", funded by the cross-border cooperation program of Latvia-Lithuania-Belarus "European Neighborhood and Partnership Instrument 2007–2013". Survey was organized on the main languages, spoken in the regions: Latvian and Russian in Latvia, Lithuanian – in Lithuania, Russian in Belarus.

Sample design for the selection - combined, according to the method - repetition-free, on the selection method - stratified in the main areas of research. The survey was conducted anonymously using a questionnaire available both on paper and in the Internet.

During the work on the results of survey in the program LMSS, survey data were subjected to weighing on the main directions of the stratification, whereby sample parameters' deviations from the general parameters were less than 3%. One of the limitations of empirical research are different methodological approaches to the definition of size of the business in the EU and in Belarus, so during the weighing of the sample enterprises in the Lithuanian and Latvian regions the EU criteria has been used 'Department of Trade and Industry Website'. Because weighing data is based on statistics and further analysis of the survey data is based on the EU methodology, evaluating sample enterprises in the Belarusian regions the authors used a criteria, established by the legislation of the Republic of Belarus (The legislation of Belarus). For data analysis, the results of the frequency analysis has been used, as well as other methods of mathematical statistics.

Authorities' trust evaluation was carried out on the basis of survey data, using the Likert's scale (1 – no trust at all, 5 – very strong confidence), as the arithmetic average, where respondents were asked to assess the degree of confidence on the following criteria: openness and transparency of relationships, the possibility of combining cross-border resources of companies for the joint development of products and services, neutralization of corruption, improvement of the investment climate in the region, ability to attract investments in the region, the promotion of inter-regional cooperation within participants, creating opportunities for the development of innovative technologies in the region. Similarly trust of business partners was evaluated, using the following criteria: the reliability of contractors, steady growth of business income, creation a cooperation network and coordination in the market, a stable enterprise reputation, survival abilities during the crisis, reducing transaction costs, facilitating the exchange of knowledge and technology. Trust to the scientific institutions has been assessed by the following criteria: information transparency, the ability to effectively use available resources for the benefit of the other participants, reduction of different kinds of risk for participants, promotion of a positive image of counterparts, assist in determining the profile of innovative type of business in the region.

Development of cooperation of the surveyed enterprises with the authorities has been fullfilled as the average arithmetic of the Likert's scale (1 – not developed, 5 – very strong development), using specific criteria: special professional consultations of the responsible employees, working in the private sector, conducted by the local authorities, regular (informal) contacts between employees of private companies and local authorities within the framework of professional associations, conferences and seminars, forums, private companies' employee training, conducted by the specialists of local municipalities, joint discussion of strategic plans during their development, formal cooperation on the basis of contracts, joint implementation projects, the formation of new joint companies, the system of privileges for certain taxes, imposed by the municipalities.

Evaluation of cooperation of the surveyed enterprises with academic institutions has been organized, using following criteria: special professional consultations of the responsible employees, conducted by the universities, lectures for the employees of the private companies, organized in the universities, lectures for scientists from universities, organized by the responsible employees of the private companies, regular (informal) contacts between employees of private companies and scientific community in the framework of professional associations, conferences and seminars, purchase of the research results (patents), part-time employment of experts from universities in the private companies, master classes for employees of firms in universities, staff training, conducted by the university professors, joint scientific publications, joint discussion of dissertations and theses at the conferences, organization of general services for publications in the scientific journals, access to the special equipment in a company or university, money investments in provision of universities, regular purchases of the research results, provided by the universities, formal co-operation on the basis of contracts (for example a practice agreement, a cooperation agreement etc.), joint implementation of projects, permanent or temporary mobility of personnel between firms and universities, establishment of new joint companies.

# 3. Results and Discussion

Innovative activities – it is performance of works and services aimed at: creation and organization of production, that is fundamentally new or with new properties of products; creation and application of new methods (technologies) or modernization of existing methods (technologies) of production, distribution and application of production; usage of structural, financial, economic, personnel, information and other innovations during the production and distribution of goods (works, services), providing cost savings or creating conditions for cost savings. Innovative products – it is result of innovative activities (goods, works, services), designed for the distribution (Avdeev 2016). Innovative system - set of subjects and objects of innovation activities, interacting in the process of creation and implementation of innovative products and operating in the framework of the policy pursued by the state in the area of innovative systems' development. In the context of the above-mentioned concepts notion of innovation can be defined as the end result of innovative activities, that get its implementation in the form of new or improved product, distributed in the market ori n the form of new or improved process, used in practice. According to the assessment of entrepreneurs of the border region the largest share of innovative products in the sales companies (50,7%) takes place in the sector of "electricity, gas, heating and air conditioning", 38.2% of innovative products occurs in the area "water supply; housing; sanitation of sewage and garbage", 32.2% of innovative products occurs in the area of financial and insurance services, 30% of innovative products occurs in the area of financial services" and in the area "information and communication services". Fewer innovative products in companies' revenues (from 0% - 10%) appears in such industries as "education", "activities of administrative services", "Governance and security; compulsory social insurance", "Construction", "wholesale and retail trade; repair of vehicles and motorcycles", "agriculture, forestry and fishery", "manufacturing", "transport and storage" (Lavrinenko, *et.al.* 2015).



Fig. 2. Evaluation of innovative products in the revenue of enterprises (%)

Source: Lavrinenko, Ruža, Ohotina 2015

Note: (A) Agriculture, forestry and fishery; (B) Mining and quarrying; (C) Manufacturing; (D) Electricity, gas, heat and air-conditioning; (E) Water supply; housing; sanitation of sewage and garbage; (F) Construction; (G) Wholesale and retail trade; repair of vehicles and motorcycles; (H) Transport and storage; (I) Accommodation and food Services (hotels, etc.); (J) Information and communication services; (K) Financial and insurance activities; (L) Real estate activities; (M) Professional, scientific and technical services; (N) Activities of administrative services; (O) Governance and security; compulsory social insurance; (P) Education; (Q) Health and social services; (R) Art, entertainment and recreation; (S) Other services.

The authors have estimated the degree of trust to the authorities according with Likert's scale (median=2,6), as well as have estimated degree of trust to the business (median=3) and science (median=3,3). Smaller amount of respondents have expressed trust to the authorities, most respondents have expressed confidence to the scientific institutions. In absolute terms level of confidence remains at a level slightly above of average.



Fig. 3. Level of trust to the science, business, government (1 – no trust, 5 – absolute trust)

Source: Authors' calculations in SPSS

Note: (A) Agriculture, forestry, fish industry, (B) Mining industry and quarrying, (C) Manufacturing industry, (D) Electric energy, gas industry, heat supply and air conditioning, (E) Water supply; upkeep and rehabilitation of waste water and waste, (F) Construction, (G) Wholesaling and retailing; automobile and motorbikes repair, (H) Transport and storage, (I) Accommodation and catering services (hotels, etc.), (J) Information and communication services, (K) Finance and insurance activity, (L) Real estate, (M) Professional, scientific and technical services, (N) Administration and servicing offices, (O) State government and security; social insurance, (P) Education, (Q) Health and social service, (R) Art, entertainment and leisure, (S) Other services, (T) Households as employers; manufacturing goods for own needs and provision of services by individual households.

The degree of entrepreneurs' confidence to the authorities, business partners and academic institutions depends on by industries: the most trusted areas are science, the most untrusted – representatives of state officials.



Fig. 4. Median assess of the trust to government, business, science (1- no trust, 5 - absolute trust)

Source: Authors' calculations in SPSS

Note: (A) Agriculture, forestry, fish industry, (B) Mining industry and quarrying, (C) Manufacturing industry, (D) Electric energy, gas industry, heat supply and air conditioning, (E) Water supply; upkeep and rehabilitation

of waste water and waste, (F) Construction, (G) Wholesaling and retailing; automobile and motorbikes repair, (H) Transport and storage, (I) Accommodation and catering services (hotels, etc.), (J) Information and communication services, (K) Finance and insurance activity, (L) Real estate, (M) Professional, scientific and technical services, (N) Administration and servicing offices, (O) State government and security; social insurance, (P) Education, (Q) Health and social service, (R) Art, entertainment and leisure, (S) Other services, (T) Households as employers; manufacturing goods for own needs and provision of services by individual households.

Sector (D) "Electric energy, gas industry, heat supply and air conditioning", (E) "Water supply; upkeep and rehabilitation of waste water and waste", (G) Wholesaling and retailing; automobile and motorbikes repair, (I) Accommodation and catering services (hotels, etc.), (K) Finance and insurance activity, (L) Real estate, (M) Professional, scientific and technical services, (P) Education, (Q) Health and social service, (R) Art, entertainment and leisure are characterized by a high level of trust in all three areas (government, business-partners, science). Trust to the research institutions in these areas ranges from 3.6 to 5 points. The leaders on the trust evaluation ar sectors (D) and (E): respondents fully trust to the research institutions, trust to the business partners and to the authorities. Mentioned data could be explained by the fact, that starting from the time of the planned economy, cooperation initiative in these sectors traditionally is state-owned, that leads to the confident relationship. Another circumstance, that contributes to the full trust between all involded parties, is a fact, that majority of above mentioned industries are still monopolized by the local authorities.

	Level of trust to the authorities	Level of trust to the business partners	Level of trust to the business
A	2,6	3,0	2,9
С	2,7	2,8	2,6
D	3,4	3,4	4,5
E	3,9	4,5	5,0
F	2,1	2,8	3,0
G	2,6	3,0	3,7
Н	2,0	2,4	2,9
Ι	3,0	3,1	4,0
J	3,0	2,8	3,4
K	2,8	2,8	4,2
L	2,9	3,0	4,0
М	2,7	3,4	4,0
Ν	2,5	2,4	2,8
0	1,0	1,0	2,3
Р	2,8	2,6	3,6
Q	2,4	3,0	3,8
R	3,0	3,3	3,7
S	2,0	2,0	2,5

 Table 1. The median evaluation of trust to the authorities, business partners and academic institutions according by sectors (1 – completely no trust, 5 – completely full trust)

#### Source: Authors' calculations in SPSS

Note: (A) Agriculture, forestry, fish industry, (B) Mining industry and quarrying, (C) Manufacturing industry, (D) Electric energy, gas industry, heat supply and air conditioning, (E) Water supply; upkeep and rehabilitation of waste water and waste, (F) Construction, (G) Wholesaling and retailing; automobile and motorbikes repair, (H) Transport and storage, (I) Accommodation and catering services (hotels, etc.), (J) Information and communication services, (K) Finance and insurance activity, (L) Real estate, (M) Professional, scientific and technical services, (N) Administration and servicing offices, (O) State government and security; social insurance, (P) Education, (Q) Health and social service, (R) Art, entertainment and leisure, (S) Other services, (T) Households as employers; manufacturing goods for own needs and provision of services by individual households.

The authors have found out, that there is a positive linear relationship between the variables "share of innovative products in the enterprise revenue" and "level of trust to the authorities ( $\rho$ (Spirman)=0,305; p=0,000)", "share of innovative products in the enterprise revenue" and "level of trust to the business partners ( $\rho$ (Spirman)=0,365; p=0,000)", "share of innovative products in the enterprise revenue" and "level of trust to the science ( $\rho$ (Spirman)=0,367; p=0,000)". Also there is found out, that the higher evaluation of the degree of cooperation of entrepreneurs with science, the greater share of innovative products in the sales of companies ( $\rho$ (Spirman)=0,334; p=0,000)), as well as, the higher evaluation of the degree of cooperation of entrepreneurs with the authorities, the greater share of innovative products in the sales of companies ( $\rho$ (Spirman)=0,204; p=0,000) in all areas. Unfortunately, due to the fact, that throughout this survey has been interviewed only 620 entrepreneurs and rule "at least 50 objects in each subsample (industry)" can be satisfied, it is impossible to receive similar data by industries. In addition to the lack of confidence, respondents noted the high level of bureaucracy in government institutions, also lack of motivation as a limitation in the cooperation between business and government.

In the course of the survey business leaders also pointed out the main barriers or limitations in the cooperation between business and government, between authorities and academic institutions, between research institutes and businesses. The main barriers between government and scientific institutions are lack of information, absence of dialogue, underestimation of science by the authorities, lack of common interests. Among limitations of cooperation between business environment and research institutions are called lack of motivation and bureaucracy, fiscal policy, lack of cooperation's transparency, legal framework, corruption, lack of confidence, lack of information, lack of common goals, complex legislation, tax system.

Thus, a survey results of 620 respondents – entrepreneurs of various sectors in the border regions of Latvia, Lithuania and Belarus has confirmed the findings of such researchers as A. K. Ljasko, R.J. Lewicki, D.J. McAllister, R.J. Bies, who wrote about trust as a fundamental component of cooperation between the organizations and the role of trust in the area of innovation. However, theses of D.Shapiro, B.H. Sheppard and L.Cheraskin about the nonlinear nature of the relationship of trust and innovation hasn't been confirmed in the research.

# Conclusion

Trust is the base component for cooperation between organizations and plays an important role in the area of innovations. Trust and innovation are interconnected: the authors found a positive linear relationship between trust, cooperation and innovation investment of scientific institutions, business partners and authorities in the model of triple helix in the border region of Latvia-Lithuania-Belarus. However, in general the degree of confidence in all sectors, and each sector separately, still is low. The most trusted area of entrepreneurs is science, the smallest – state officials. Sector (D) "Electric energy, gas industry, heat supply and air conditioning", (E) "Water supply; upkeep and rehabilitation of waste water and waste", (G) Wholesaling and retailing; automobile and motorbikes repair, (I) Accommodation and catering services (hotels, etc.), (K) Finance and insurance activity, (L) Real estate, (M) Professional, scientific and technical services, (P) Education, (Q) Health and social service, (R) Art, entertainment and leisure are characterized by a high level of trust in all three areas (government, business partners, science).

In order to increase the effective functioning of the triple helix model of innovation is necessary to increase level of trust between participants by involving them in cooperation, conducting activities such as expert advices for the local authorities, regular (informal) contacts between employees of private companies and local authorities within the framework of professional associations, conferences, seminars and forums, staff training, conducted by the representatives from municipalities, joint discussion of strategic plans in the course of their development, formal cooperation on the basis of signed contracts, joint implementation of projects, establishment of new joint companies, special professional consultations in universities, lectures for employees of private companies, regular (informal) contacts between employees of companies and community in the framework of professional associations, conferences and seminars, purchase of research results (patents), invitation of experts from universities to part-time job in the private companies, workshops for employees of private companies, organized in universities, organization of publication services (journals), access to the special equipment in a company or in university, money investments in

provision of universities, regular purchases of university research results, formal co-operation on the basis of contracts (eg. practice agreements, cooperation agreements and so on), joint implementation of projects, permanent or temporary mobility of personnel between companies and universities, establishment of new joint companies.

It is also necessary to reduce the barriers of cooperation between business, government and science: reduce level of bureaucracy in government institutions, improve motivation in the collaboration between business and government, increase availability of information, try to establish a dialogue between the involved sides, cope with the underestimation of science by the government, look for common interests, perhaps, improve fiscal policy, transparency of cooperation, improve legal framework, cope with corruption and simplify legislation.

## References

Ambler, T. The trouble with brand valuation / T. Amber, P. Barwise//Journal of Brand Management in press. 1998, vol. 5, p. 367-377.

Arrow, K. J. Limits of Economic Organization. 1974. New York: Norton.

Bidault, F.; Jarillo, C. J. Trust in economic transactions, in F. Bidault, P-Y. Gomez and G. Marion (Eds). Trust: Firm and Society. 1997. Basingstoke: Macmillan Press.

Bocquet, R. Concurrence et cooperation. Une approche du systeme industrial par les conventions [Competition and cooperation. An approach to industrial system by conventions]. Dans Firms et economie industrielle / R. Bocquet, O. Servais. – Paris, 1997, p. 21–38.

Bradach, J. L. Prise Authority. Trust: Ideal Types to Plural Forms / J. L. Bradach, R. Eccles//*Annual Review of Sociology*. 1989, vol. 15, p. 97–118.

Daugavpils Universitāte. 2011. EEZ un Norvēģijas valdības finanšu instrumenta projekts "Augstskolu pētnieciskā potenciāla veicināšana reģionālās attīstības sekmēšanai" [EEZ and Norwegian government's financial project "Promoting the potential of higher educational research in the area of regional development"]. Available on the Internet:

< http://du.lv/projekti/projekti/eez-un-norvegijas-valdibas-finansu-instrumenta-projekti/projekts-nr-lv0054-augstskolu-petnieciskais-potencials-regionalas-attistibas-veicinasanai/>.

Department of Trade and Industry Website: Small and Medium Enterprise (SME) Statistics - Definitions. Available on the Internet: <www.dti.gov.uk/SME4/smehome.htm>.

Etzkowitz, H.; Leydesdorff, L. The Triple Helix of UniversityIndustry-Government Relations: A Laboratory for KnowledgeBased Economic Development // EASST Review. 1995, 14, № 1

European Commission. Europe 2020. A European strategy for smart, sustainable and inclusive growth. 2010, Brussels.

Gjoski, N. 2011. Innovation and sustainable development: Linkages and perspectives for policies in Europe. European Sustainable Development Network Quarterly Report 2011. Available on the Internet: <a href="http://www.sd-network.eu/quarterly%20reports/report%20files/pdf/2011-June-Innovation">http://www.sd-network.eu/quarterly%20reports/report%20files/pdf/2011-June-Innovation</a> and sustainable development.pdf>.

Inzelt, A. The evolution of university-industrygovernment relationships during transition. Research Policy. 2004, vol. 33, p. 975–995.

Katz, J.S.; Martin, B.R. What is research collaboration? Research Policy. 1997. Vol. 26, p. 1–18.

Lavrinenko, O.; Ruža, O.; Ohotina, A. Innovative activities of SMES of the cross-border regions (Latvia-Lithuania-Belarus). The proccedings of Annual 21<sup>st</sup> International Scientific Conference "Research for Rural Development 2015". Volume 2. Latvia University of Agruculture. p. 244-249. ISSN 1691-4031

Lavrinenko, O.; Ohotina, A.; Ruzha, O.; Shmarlouskaya, H.; Tumalavičius, V. 2015. Cross Border Cooperation of Small and Medium Enterprises: Problems, Opportunities, Prospects. Monograph. Rezekne Higher Education Institution, 308 p. ISBN 978-9984-44-181-8

Lewicki, R. J.; McAllister, D. J.; Bies, R. J. Trust and distrust: new relationships and realities. Academy of Management Review. 1998, Vol. 23, No. 3, p. 438–458.

Lojeski, K.S.; Reilly, R.; Dominick, P. 2006. The role of virtual distance in innovation and success. Available on the Internet: <a href="http://ieeexplore.ieee.org/iel5/10548/33361/01579343.pdf">http://ieeexplore.ieee.org/iel5/10548/33361/01579343.pdf</a>?

Lorenz, E.H. 1988. Neither friends nor strangers: informal networks of subcontracting in French industry, in D. Gambetta (Ed). Trust: Making and Breaking Cooperative Relations, Oxford: Basil Blackwell, p. 194–210.

#### JOURNAL OF SECURITY AND SUSTAINABILITY ISSUES ISSN 2029-7017 print/ISSN 2029-7025 online

Morgan, R. The Commitment-Tryst Theory of Relationship Marketing / R. Morgan, S. Hant//Journal of Marketing. 1994, vol. 58, p. 20-38.

OECD, 2007. Competitive Regional Clusters: National Policy Approaches.

Oganisjana, K.; Surikova, S. 2015. Social innovation in the promotion of sustainable development of the contemporary Latvian society, *Journal of Security and Sustainability Issues* 5(2): 249-258. DOI: http://dx.doi.org/10.9770/jssi.2015.5.2(10)

Raišienė, A.G. 2012. Sustainable development of inter-organizational relationships and social innovations, Journal of Security and Sustainability Issues 2(1): 65–76. DOI: http://dx.doi.org/10.9770/jssi/2012.2.1(6)

Rio Declaration on Environment and Development. Available on the Internet: <a href="http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163&l=en">http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163&l=en</a>.

Rosha, A.; Lace, N. 2015. Sustainable development and behavioural patterns: to innovations through coaching, *Journal of Security and Sustainability Issues* 5(2): 171-180. DOI: http://dx.doi.org/10.9770/jssi.2015.5.2(4)

Sako, M. 1994. Supplier relationship and innovation, in M. Dodgson and R. Rothwell (Eds). The Handbook of Industrial Innovation, pp.242–268.

Shapiro, D.; Sheppard, B.H.; Cheraskin, L. 1992. Business on a handshake, Negotiation Journal, Vol. 8, No. 4, pp.365–377.

Young-Ybarra, C.; Wiersema, M.F. 1999. Strategic flexibility in information technology alliances: the influence of transaction cost economics and social exchange theory, *Organization Science*, Vol. 10, No. 4, pp.439–459.

Avdejev, V. Nakazanije v sisteme ugolovno-pravovih sredstv protivodejstvija prestupnosti: vzaimodejstvije pravovih sistem v uslovijah globalizacii mezdunarodnoj zizni. [Punishment in the system of criminal legal means of preventing crime: the interaction of legal systems in the context of globalization of international life]. Kriminologiceskij zurnal Bajkalskogo gosudarstvennogo universiteta ekonomiki i prava. -2016. - Vol.10, N 2. - p. 301–312. DOI:10.17150/1996-7756.2016.10(2).301-312.

Blom, R.; Melin, H.; Sarno, A.; Sarno, I. Socialnij kapital doverija i menedzerialnije strategii [The social capital of trust and the managerial strategy]. Available on the Internet: <a href="http://ecsocman.hse.ru/data/994/991/1219/2005\_n2\_p126-159.pdf">http://ecsocman.hse.ru/data/994/991/1219/2005\_n2\_p126-159.pdf</a>>.

Burlakov, V. Kriminalizacija nezakonnogo obogasenija: teoreticeskaja model sostava prestuplenija [The criminalization of illicit inrichment: a theoretical model of a crime]. Kriminologiceskij zurnal Bajkalskogo gosudarstvennogo universiteta ekonomiki i prava. 2015. Vol.9, N 1. p. 12–19. DOI: 10.17150/1996-7756.2015.9(1).12-19.

Doilj, P.; Stern, F. 2007. Marketing-menedzment i strategii [Marketing Management and Strategies]. - Spb:- Piter, p. 544

Kottler, F.; Keller, K. 2015. Marketing menedzment [Marketing Management]. - Spb:- Piter, p. 800

Ljasko, A. 2004. Problema doverija v socialno-ekonomiceskoj teorii [The problem of confidence in the socio-economic theory]. Monografija. – M.: IE RAN.

Zakonodatelstvo Belarusi. Pravovaja biblioteka: Zakon Respubliki Belarus ot 16.10.1996. N685-XIII "O gosudarstvennoj podderzke malogo predprinimatelstva v Respublike Belarus" [The legislation of Belarus. Law Library: Law of the Republic of Belarus of 16.10.1996. N685-XIII "On state support of small business in the Republic of Belarus"]. Available on the Internet: <a href="http://old.bankzakonov.com/">http://old.bankzakonov.com/</a> rep2010/vse15/str21n.htm>.

Skripkina, T. Doverije kak socialno-psihologiceskoje javlenije [Trust as a socio-psychological phenomenon]. Dissertacija na soiskanije ucenoj stepeni doktora psihologiceskih nauk po specialnosti 19.00.05 – socialnaja psihologija. – Rostov-na-Donu, 1998. Available on the Internet: <a href="http://www.twirpx.com/file/187268/">http://www.twirpx.com/file/187268/</a>>.

O'Shonessi D. 2002. Konkurentnij marketing: strategiceskij podhod [Competitive Marketing: A Strategic Approach]. - Spb.: Piter, p. 864

**Olga LAVRINENKO** is Ph.D.; Senior Researcher in the Institute of Humanities and Social Sciences of Daugavpils University, Centre of Social Research. In 2010 she graduated from Daugavpils University, where she got her doctoral's degree in Economics.

**Nikolajs JEFIMOVS** is a Lecturer, Ph.D candidate, Head of the Department of Economics and Sociology of the Faculty of Social Sciences of Daugavpils University. Research interests: commercial law, alternative dispute resolution methods, tort law.

Jānis TEIVĀNS-TREINOVSKIS is Professor, Ph.D.; Dean of Faculty of Social Sciences of Daugavpils University. Research interests: criminal law, penal law, criminology.