Olga Lavrinenko[1], Alina Ohotina[2]
THE INFLUENCE OF ENTERPRISES' ECONOMIC ACTIVITY INTEGRATION INTO INTERNET ENVIRONMENT ON THE ECONOMY

The aim of the article is to specify the degree of influence of the European Union enterprises' economic activity integration into the Internet environment expressed by the indicators of enterprises' share with access to the Internet network (in %), on the economy of the EU countries expressed by the GDP indicator (in current market prices per capita, EUR).
Keywords: Internet; enterprise activities; the EU; Internet access; GDP.

Ольга Лавриненко, Аліна Охотіна
ВПЛИВ ІНТЕГРАЦІЇ ГОСПОДАРСЬКОЇ ДІЯЛЬНОСТІ ПІДПРИЄМСТВ В ІНТЕРНЕТ-СЕРЕДОВИЩЕ НА ЕКОНОМІКУ

У статті уточнено ступінь впливу інтеграції господарської діяльності підприємств Євросоюзу в Інтернет-середовище, виражену показниками частки підприємств, що мають доступ до мережі Інтернет (у %) і частки продукції підприємств, що мають сторінку онлайн (у %), в економіці країн ЄС, виражену показником ВВП (у чинних ринкових цінах на душу населення, у євро).
Ключові слова: Інтернет; господарська діяльність підприємств; ЄС; доступ до мережі Інтернет; ВВП.
Форм. 4. Табл. 13. Літ. 17.

Ольга Лавриненко, Алина Охотина
ВЛИЯНИЕ ИНТЕГРАЦИИ ХОЗЯЙСТВЕННОЙ ДЕЯТЕЛЬНОСТИ ПРЕДПРИЯТИЙ В ИНТЕРНЕТ-СРЕДУ НА ЭКОНОМИКУ

В статье уточнена степень влияния интеграции хозяйственной деятельности предприятий Евросоюза в Интернет-среду, выраженная показателями доли предприятий, имеющих доступ к сети Интернет (в %) и доли продукции предприятий, имеющих домашнюю страницу (в %), в экономике стран ЕС, выраженную показателем ВВП (в текущих рыночных ценах на душу населения, евро).
Ключевые слова: Интернет; хозяйственная деятельность предприятий; ЕС; доступ к сети Интернет; ВВП.

Introduction. According to the World Bank data investment climate is considered to be a set of local factors forming possibilities and stimuli of companies regarding production investments, creation of new working places and expanding the scale of activity (World Development Report 2005, 2004: 2). Thus, the investment climate being a complex evaluation is expressed by a range of indicators characterizing economic, political and social environment of enterprises' economic activity management. One of these indicators is the share of enterprises with access to the Internet environment (in %) and of enterprises with a home page (in %) reflecting the degree of integration of enterprises' economic activity into the Internet environment. Unquestionably, good investment climate facilitates the flow of investments into a

---

[1] Daugavpils University, Latvia.
[2] Daugavpils University, Latvia.

country, which in turn positively influences the economy. However, it is necessary to specify how separate components of investment climate, particularly the indicators reflecting the integration of the European Union enterprises' economic activity into the Internet environment, influence the economy.

At present the significance of enterprises' involvement into the Internet is growing; since under the circumstances of information society the society's "internetization" affects the private sector first of all. To this extent or another, enterprises become the participants of the network economy; even "If you do not care about the network (Internet), the network will affect you anyway. As long as you are living in society at the current time and the current place, you will have to deal with the network society" (Castells, 2001: 292).

Many scientists studying the influence of the Internet on society functioning have proved both inevitability and fundamental character of transformations in all society spheres, including enterprises, in connection with the introduction of Internet technologies into these spheres (Freeman and Louca, 2001: 407; Fukuyama, 1999: 354).

K. Kelly (1997) suggests that the network economy is a reality, which enterprises also should consider in practical activity, "those who play keeping new rules will flourish, those who ignore them — will not". The term "network economy" is generally meant to denote the business environment that has emerged as a result from ubiquitous information technology allowing access to information anytime and anywhere, irrespective of time and location (Malone and Laubacher, 1998; Chesbrough, 2003; Tapscott and Williams, 2007).

Predecessors of the global network environment were intercompany and corporate information networks created as a result of building-in information technologies into the organizations' functioning. In 1996—1997 Western scientists studying economic effectiveness of information technologies introduction have discovered that the effect of introduction is mostly revealed in increase of produced item consumption value, faster economic growth etc. Successful use of information technologies turns an organization into a network structure giving it a new quality, which statistically is not comparable to its prior traditional form of existence. The main gain from it is improvement in the use of all organization resources, its increased flexibility and adaptability to external and internal problems, increase in quality of decisions and as a result — higher competitive ability (Brynjolfsson and Shinkyu, 1996).

According to the data published in "The Economist" in 1999, approximately 90% of top managers of the biggest international companies believed that the Internet will change and strongly influence the global market in the next years. However, even today not all enterprises administrators evaluate the use of information technologies on the enterprise and the direct involvement of enterprises into the Internet environment as a factor ensuring effective functioning and enterprise development in the long term.

Since 2002 the World Economic Forum and the International Business School conducts the annual research of the influence of information-communication technologies (ICT) on competitive ability of countries and welfare of their inhabitants. The authors of the research rest on the judgement, according to which there is a close connection between ICT development and economic well-being since ICT today play

a leading role in the development of innovations, increase of productivity, economy diversification and stimulating business activity, thus contributing to the improvement of general economic development level.

Networked Readiness Index measures the ICT development level by 3 groups of parameters: conditions for ICT development; readiness of citizens, business circles and governmental bodies to use ICT; the ICT usage level in public, commercial and state sectors. It is supposed that states should use the Index to analyse the problem moments in their policies and realize the monitoring of their progress in new technologies' introduction (The Global Information Technology Report 2014: Addressing New Digital Divide Key for Balanced Growth, 2014). As it is shown by the results of the present study the integration of business activity of enterprises into the electronic environment of the Internet is a significant factor for GDP increase.

However, the issue of the degree of influence of enterprises' involvement into the Internet environment on the economy still remains little-studied and interesting. The authors have made the correlation and regressive analyses with the aim to specify the degree of influence of enterprises' involvement into the Internet environment on GDP size on the example of the EU countries in the period from 2010 till 2013.

Research methods. Using correlation analysis the study of correlation dependences is based on the research of such relations between variables, at which the value of one variable − dependent, are changing on average depending on the values assumed by another variable. The mathematic measure of correlation for two random variables is the correlation coefficient (Efimova et al, 1998: 221). As we are interested in the relation between two metric variables, in such cases most often the pair correlation coefficient − Pearson's coefficient is used:

$$r = \frac{\sum_{i=1}^{n}(x_i - \overline{x})(y_i - \overline{y})}{(n-1)s_x s_y}, \tag{1}$$

where x_i, y_i are the values of two variables; $\overline{x}, \overline{y}$ − their average values; s_x, s_y − their standard deviations; n − the number of variables pairs.

In order to specify the degree of correlation between the studied variables the double logarithmic form can be used:

$$\ln Y_i = \alpha + \beta \ln X_i + u, \tag{2}$$

where the coefficient at an independent variable shows the percent growth of Y if X increases by 1%.

Interpretation of regression coefficient − flexibility of the resulting variable by independent variable:

$$\frac{dY}{Y} = \beta \frac{dX}{X} \Rightarrow \beta = \frac{dY/Y}{dX/X}. \tag{3}$$

The double logarithmic form should be used where ir the basis to suggest the constancy of flexibility (Chernyak, www.slideshare.net).

Research findings. According to authors' results on 27 European Union countries in the period from 2010 till 2013 basing on the data of the European Statistical Office statistical base, the average value of enterprises' share with the access to the Internet since 2010 has increased by 1,5%. The minimum value by the current indi-

cator in 2013 was 79% for Romania. Low indicators are represented in such countries as Bulgaria — 87%, Hungary — 89%. Among the countries with 100% Internet coverage was Finland since 2010, the Netherlands — since 2011, Lithuania — since 2012 (Table 1).

Table 1. **Share of Enterprises with Internet Access in EU-27 Countries, 2010−2013,** % (Eurostat database)

	2010	2011	2012	2013
Average value in the EU-27	94.1	94.7	95.3	95.6
Belgium	97.0	96.0	97.0	97.0
Bulgaria	85.0	87.0	87.0	89.0
Czech Republic	95.0	96.0	97.0	96.0
Denmark	97.0	98.0	99.0	99.0
Germany	97.0	97.0	97.0	98.0
Estonia	96.0	96.0	96.0	97.0
Ireland	92.0	93.0	94.0	95.0
Greece	90.0	93.0	91.0	87.0
Spain	97.0	97.0	96.0	97.0
France	97.0	96.0	99.0	99.0
Croatia	95.0	96.0	96.0	98.0
Italy	94.0	94.0	96.0	97.0
Cyprus	88.0	91.0	95.0	93.0
Latvia	91.0	92.0	91.0	94.0
Lithuania	96.0	98.0	100.0	100.0
Luxembourg	96.0	97.0	98.0	98.0
Hungary	90.0	89.0	89.0	88.0
Malta	94.0	95.0	95.0	95.0
the Netherlands	98.0	100.0	100.0	100.0
Austria	97.0	98.0	98.0	98.0
Poland	96.0	94.0	93.0	94.0
Portugal	94.0	95.0	95.0	96.0
Romania	79.0	79.0	79.0	83.0
Slovenia	97.0	97.0	98.0	97.0
Slovakia	98.0	97.0	98.0	98.0
Finland	100.0	100.0	100.0	100.0
Sweden	96.0	96.0	98.0	98.0

The average value of enterprises' share in the EU countries with the enterprise home page in the analysed period increased from 66.3% to 72.4%. Low indicators are represented in such countries are Romania — 42%, Bulgaria — 47%, Latvia — 56%, Portugal — 59%.

The values of the present indicator in 2013 has reached 94.0%. High indicators are represented in such countries as Finland — 94%, Denmark — 92%, Sweden — 82%, Germany — 84% (Table 2).

In the European Union the use of the Internet at enterprises has a fast-growing dynamics. The authors more thoroughly studied this dynamics in Latvia using Latvian Republic central statistical base data (Table 3).

In 2013 already 94.2% of enterprises in Latvia used the Internet. Among them hotel business (accommodation) had 100% Internet coverage in 2011−2012, and information and communication services had 100% Internet coverage since 2011.

Catering service enterprises use the Internet the least − 89.0%, however since 2010 the fast growth from 68.1 has been noticed.

Table 2. **Share of Enterprises with Internet Home Page in the EU-27 Countries, 2010–2013,** % (Eurostat database)

	2010	2011	2012	2013
Average value in the EU-27	66.3	69.0	69.0	72.4
Belgium	78.0	77.0	77.0	78.0
Bulgaria	37.0	45.0	45.0	47.0
Czech Republic	74.0	77.0	77.0	80.0
Denmark	88.0	89.0	89.0	92.0
Germany	81.0	81.0	81.0	84.0
Estonia	70.0	73.0	73.0	76.0
Ireland	68.0	70.0	70.0	75.0
Greece	58.0	64.0	64.0	61.0
Spain	62.0	64.0	64.0	68.0
France	58.0	60.0	60.0	65.0
Croatia	61.0	66.0	66.0	68.0
Italy	61.0	63.0	63.0	67.0
Cyprus	52.0	56.0	56.0	66.0
Latvia	48.0	53.0	53.0	56.0
Lithuania	65.0	68.0	68.0	75.0
Luxembourg	70.0	75.0	75.0	79.0
Hungary	57.0	60.0	60.0	61.0
Malta	66.0	73.0	73.0	78.0
the Netherlands	81.0	82.0	82.0	84.0
Austria	80.0	83.0	83.0	86.0
Poland	65.0	65.0	65.0	66.0
Portugal	52.0	54.0	54.0	59.0
Romania	35.0	34.0	34.0	42.0
Slovenia	73.0	74.0	74.0	80.0
Slovakia	74.0	76.0	76.0	80.0
Finland	87.0	93.0	93.0	94.0
Sweden	89.0	89.0	89.0	89.0

The share of small enterprises with the access to the Internet is smaller comparing to medium-sized and big enterprises. It is possible to suggest that the reason of the present differences is insufficient development and expensiveness of information technologies infrastructure for small enterprises.

As testified by the Latvian Republic central statistical results in enterprises research, the most often reasons why businessmen use the Internet are: using Internet banking and financial services − 76%, market research and analysis − 47%, education and training − 32%. Also, the use of the Internet facilitates cooperation with governmental and local authorities institutions − 44%, namely receiving information, downloading document blanks, submitting the filled-in document blanks (LR Centralas statistikas parvaldes apsekojums, 2007).

One of the important means of enterprise communication with clients is an enterprise's home page. It was also interesting to analyse the data on the number of enterprises in Latvia with web pages (Table 4).

Table 3. **Share of Enterprises with Internet Access in Latvia by the Groups of Enterprises and Sectors, 2010–2013,** %

	2010	2011	2012	2013
Total	90.6	92.2	90.7	94.2
- with the number of employees 10–49	89.0	90.8	88.8	93.3
- with the number of employees 50–249	98.3	99.1	99.5	98.7
- with the number of employees from 250 and more	99.0	97.8	99.0	98.9
Manufacturing industry (C)	89.1	90.8	90.3	93.2
Electric power, delivering gas, heat and air conditioning, water supply, service and sanitation of water leakage and waste (D, E)	95.6	95.8	95.7	99.0
Building (F)	91.4	91.0	86.4	93.3
Wholesale and retail trade (G)	93.1	93.3	92.2	95.0
- automobiles and motorcycles trade and repair	96.7	95.6	94.5	95.0
- wholesale trade	96.5	97.6	96.6	98.8
- retail trade	89.7	89.6	88.4	92.2
Transportation and storage facilities (H)	88.6	91.1	88.8	93.7
Hotels and other accommodation	93.4	100.0	100.0	98.6
Catering services	68.1	81.9	80.4	89.0
Information and communication services (J)	98.7	100.0	100.0	100.0
Real estate operations (L)	91.0	94.4	94.5	94.9
Professional, scientific and technical services	96.5	95.4	97.5	98.7
Administrative work and activity of maintenance services	91.7	91.9	88.5	90.6

Source: Latvian Republic central statistical database.

Table 4. **Share of Enterprises with a Home Page in Latvia by the Groups of Enterprises and Sectors, 2010–2013,** %

	2010	2011	2012	2013
Total	48.4	53.4	53.0	55.7
- with the number of employees 10–49	43.7	48.3	48.0	51.6
- with the number of employees 50–249	69.2	76.3	74.7	74.5
- with the number of employees from 250 and more	88.0	91.7	93.9	92.1
Manufacturing industry (C)	48.7	55.5	55.3	57.6
Electric power, delivering gas, heat and air conditioning, water supply, service and sanitation of water leakage and waste (D, E)	35.1	48.9	47.6	57.0
Building (F)	43.3	45.3	43.4	43.4
Wholesale and retail trade (G)	49.5	49.2	52.4	55.5
- automobiles and motorcycles trade and repair	60.3	60.2	66.1	66.5
- wholesale trade	68.7	69.3	71.9	76.8
- retail trade	32.6	32.1	35.1	36.9
Transportation and storage facilities (H)	35.9	46.1	39.2	41.0
Hotels and other accommodation	90.1	93.9	92.9	93.6
Catering services	26.5	38.6	45.2	52.9
Information and communication services (J)	89.9	93.3	91.9	94.3
Real estate operations (L)	32.0	45.1	40.8	46.3
Professional, scientific and technical services	67.0	76.7	77.0	79.4
Administrative work and activity of maintenance services	65.6	66.5	65.1	67.1

Source: Latvian Republic central statistical database.

The total amount of enterprises having their own home pages in the Internet is only 55.4% of all enterprises of the country. Here the direct dependence of the enterprise own home page on the number of this enterprise's employees is observed. The

more employees are at the enterprise the more likely that the enterprise has its own site. Thus, 92.1% of the enterprises with 250 and more employees have their own Internet resource.

Among the total amount of enterprises the least interested in having the site are entrepreneurs in the retail trade sector. Here only 36.9% of the enterprises have the home page; and the growth tendency is not high − only 4.4% in 3 years.

The greatest interest to own web pages is noticed in the hotel business and in information and communication services, 93.6% and 94.3% respectively.

There is a tendency of growing number of enterprises willing to have their own home page. Since 2010 the number of enterprises with their own site increased by 7.3%. This makes it possible to suggest that with time the demand for Internet sites promotion services will grow.

The main envisaged aims of the enterprise home page are product marketing − 41%, providing access to catalogues and prices − 21% and product maintenance after purchase − 6% (LR Centralas statistikas parvaldes apsekojums, 2007).

In order to check the hypothesis on the degree of the influence of involvement into the Internet environment, characterized by such indicators as the access of enterprises to the Internet and the existing enterprise home page, on the economy expressed by the GDP indicator per capita in current market prices the authors used the correlation and regressive analyses (Table 5).

Table 5. **Pearson's Coefficient of Correlation Between the Share of Enterprises Involved in Electronic Environment and the GDP in the EU-27 Countries, 2010–2013,** %

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-27,284	9,939		-2,745	,011
	LNINET11	8,167	2,184	,599	3,739	,001

a Dependent Variable: LNVVP11.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

As a result of the study conducted on the example of the EU countries it was stated that in the analysed period GDP per capita is positively influenced by the share of enterprises with the access to the Internet (Pearson's correlation coefficient in 2010 − 0.414, $p < 0.01$; in 2011 − 0.451, $p < 0.01$; in 2012 − 0.495, $p < 0.01$; in 2013 − 0.477, $p < 0.01$), and also the share of enterprises with their own home page (Pearson's correlation coefficient in 2010 − 0.546, $p < 0.01$; in 2011 − 0.559, $p < 0.01$; in 2012 − 0.568, $p < 0.01$; in 2013 − 0.585, $p < 0.01$). Consequently, it can be concluded that enterprises' involvement into the Internet environment positively influences the EU economy.

The degree of influence is estimated by the authors using log-linear regression:

$$\ln Y_i = \alpha + \beta \ln X_i + u, \tag{4}$$

where X − the share of enterprises in the EU countries having access to the Internet in % (in the first case) and the share of enterprises in the EU having homes page in % (in the second case); Y − GDP per capita in current market prices in the EU. The coefficient if the variable is independent shows the growth of Y in % if X increases by 1%.

Table 6. **Log-Linear Regression Coefficient** *(independent variable – share of enterprises with the access to the Internet network in %, dependent variable – GDP per capita in current market prices, EUR)*, **2010**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-23,930	10,015		-2,390	,025
	LNINET10	7,431	2,204	,559	3,372	,002

a Dependent Variable: LNVVP10.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

On the 2010 data it can be stated that if the share of enterprises with Internet access increases by 1%, GDP per capita increases by 7.4% ($p < 0.01$).

Table 7. **Log-Linear Regression Coefficient** *(independent variable – share of enterprises with Internet access in %, dependent variable – GDP per capita in current market prices, EUR)*, **2011**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-27,284	9,939		-2,745	,011
	LNINET11	8,167	2,184	,599	3,739	,001

a Dependent Variable: LNVVP11.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

On the 2011 data it can be stated that if the share of enterprises with Internet access increases by 1%, GDP per capita increases by 8.2% ($p < 0.01$).

Table 8. **Log-Linear Regression Coefficient** *(independent variable – share of enterprises with Internet access in %, dependent variable – GDP per capita in current market prices, EUR)*, **2012**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-27,801	8,793		-3,162	,004
	LNINET12	8,273	1,930	,651	4,286	,000

a Dependent Variable: LNVVP12.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

On the 2012 data it can be stated that if the share of enterprises with Internet access increases by 1%, GDP per capita increases by 8.3% ($p < 0.01$).

Table 9. **Log-Linear Regression Coefficient** *(independent variable – share of enterprises with Internet access in %, dependent variable – GDP per capita in current market prices, EUR)*, **2013**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-28,785	10,142		-2,838	,009
	LNINET13	8,484	2,224	,607	3,814	,001

a Dependent Variable: LNVVP13.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

On the 2013 data it can be stated that if the share of enterprises with Internet access increases by 1%, GDP per capita increases by 8.5% (p < 0.01).

Table 10. **Log-Linear Regression Coefficient** *(independent variable – share of enterprises with home pages in %, dependent variable – GDP per capita in current market prices, EUR)*, **2010**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,712	1,732		,989	,332
	LNHOME10	1,948	,415	,685	4,697	,000

a Dependent Variable: LNVVP10.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

On the 2010 data it can be stated that if the share of enterprises with own home pages increases by 1%, GDP per capita increases by 1.9% (p < 0.01).

Table 11. **Log-Linear Regression Coefficient** *(independent variable – share of enterprises with home pages in %, dependent variable – GDP per capita in current market prices, EUR)*, **2011**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,372	1,848		,743	,465
	LNHOME11	2,018	,438	,678	4,606	,000

a Dependent Variable: LNVVP11.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

On the 2011 data it can be stated that if the share of enterprises with own home pages increases by 1%, GDP per capita increases by 2% (p < 0.01).

Table 12. **Log-Linear Regression Coefficient (** *independent variable – share of enterprises with home pages in %, dependent variable – GDP per capita in current market prices, EUR)*, **2012**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,363	1,804		,755	,457
	LNHOME12	2,023	,428	,687	4,729	,000

a Dependent Variable: LNVVP12.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

On the 2012 data it can be stated that if the share of enterprises with own home pages increases by 1%, GDP per capita increases by 2.02% (p < 0.01).

On the 2013 data it can be stated that if the share of enterprises with own home pages increases by 1%, GDP per capita increases by 2.4% (p < 0.01).

Thus, in the last 4 years the degree of the influence of enterprises' economic activity integration into the environment of the Internet on the economy of the EU countries is strong enough and has a tendency to increase further.

Conclusions. The stated linear relation between the share of enterprises involved into the electronic environment, in the present study measured by such indicators partially characterizing the investment climate of countries as the access of enterpris-

es to the Internet and the enterprise home page, and the GDP indicator need to be more thoroughly studied in order to get a deeper understanding of the mechanism of these indicators interaction.

Table 13. **Log-Linear Regression Coefficient** *(independent variable – share of enterprises with home pages in %, dependent variable – GDP per capita in current market prices, EUR)*, **2013**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-,311	1,976		-,157	,876
	LNHOME13	2,392	,463	,719	5,168	,000

a Dependent Variable: LNVVP13.
Source: authors' calculations in SPSS 17 based on the Eurostat data.

The growth of the share of enterprises with the access to the Internet network for 1% results in the increase of GDP per capita growth from 7.4% to 8.5% in the period from 2010 to 2013. The growth of the share of enterprises with own home pages by 1% results in the increase of GDP per capita from 1.9% to 2.4% in the corresponding period.

Thus, for successful business and GDP growth it is necessary to invest in promotion of the global Internet network. The integration into the Internet environment provides possibilities to get more clients, who in addition can be evaluated and analysed. Thanks to the Internet it is possible to obtain a huge amount of data about network users, sort the data and classify it by categories. Movements in search engine systems have no geographic limitations. Consequently, no geographic limitations arise for business development.

References:

Ефимова М.Р., Петрова Е.В., Румянцев В.Н. Общая теория статистики. – М.: ИНФРА, 1998. – 221 с.

Черняк В. Прикладная эконометрика. Преобразования переменных в парной регрессии // www.slideshare.net.

Brynjolfsson, E., Shinkyu, Y. (1996). Information Technology and Productivity: A Review of the Literature, February, MIT Sloan School of Management, Cambridge, Massachusetts.

Castells, M. (2001). The Internet Galaxy: reflection on the Internet, Business, and Society. Oxford University Press. 292 p.

CESifo DICE Report (2012). Journal for Institutional Comparisons, Vol. 10, #1. Center for Economic Studies and the Ifo Institute, Munich, p. 76–77.

Chesbrough, H.W. (2013). Open Innovation: The New Imperative for Creating and Profiting from Technology. Harvard Business School Press, Boston.

Enterprises – level of Internet access. Eurostat datebase // appsso.eurostat.ec.europa.eu.

Enterprises having a web site or home page. Eurostat datebase // appsso.eurostat.ec.europa.eu.

Freeman, C., Louca, F. (2001). As Time Goes By: From the Industrial Revolutions to the Information Revolution. Oxford University Press. 407 p.

Fukuyama, F. (1999). The Great Disruption. London: Profile Books. 354 p.

Henzler, H. (1981). Shaping an International Investment Strategy. The McKinsey Quarterly, Spring.

Interneta lietosana uznemumos gada sakuma, % no uznemumu attiecigas grupas kopskaita, LR Centrala statistikas parvalde // www.csb.gov.lv.

Kelly, K. (1997). New Rules for the New Economy. WIRED September // www.wired.com.

Kottler, P. (1984). Marketing Management: Analysis, Planning and Control. 5th edition.

Malone, T.W., Laubacher, R.J. (1998). The Dawn of the E-Lance Economy. Harvard Business Review, 9.

Tapscott, D., Williams, A.D. (2007). Wikinomics. How Mass Collaboration Changes Everything. New York: Penguin. 320 p.

World Development Report 2005: A Better Investment Climate for Everyone. The International Bank for Reconstruction and Development. The World Bank, 2004, 13: 2.

Стаття надійшла до редакції 6.01.2015.