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and Financing the Activity
of Public and Private Sector Units**

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Wiesława Caputa



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Selected Aspects of Managing and Financing the Activity of Public and Private Sector Units

edited by
Wiesława Caputa



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Introduction

It is an undisputed fact that under present economic conditions, information and knowledge resources are the foundation of the competitive potential of countries, regions and units of the public and private sector. This situation calls for strategies of knowledge management. As pointed out by Ashok Jashapara, in these turbulent times „any assumptions about competitive environments and approaches to organisational alignment and adaptability need to be considered carefully”¹. Consequently, knowledge management requires an integrated, strategic and interdisciplinary approach.

In order to develop the intellectual capital, which has a positive effect on organizational efficiency, and, consequently, the overall performance of an organization, it is necessary to develop explicit and tacit knowledge, systems and technologies of knowledge dissemination, and a culture conducive to knowledge management. Another element that plays an important role in this context is organizational learning, which is connected with systematic knowledge acquisition, dissemination and application, which is facilitated by exchange of experience.

Articles included in the current issue address this challenge and present comparative analyses, experiences and concepts used in different countries, which help to systematise knowledge and describe opportunities for and barriers to its application.

In their article entitled *Comparative assessment of cross-sectoral ties within the chemical industry: Ukraine, Poland, Germany*, Svitlana Ishchuk and Lyubomyr Sozansky point to the need of creating and implementing a new model of development for the chemical industry in Ukraine. Based on their analyses, they demonstrate that guidelines concerning the development of chemical production in Ukraine are irrational and economically dangerous, which should stimulate

¹ A. Jashapara, *Knowledge management. An integrated approach*, Pearson Education Limited, 2004, p. 11.

the search for and the implementation of new solutions that will decrease the dependence of the Ukrainian economy on imports of certain chemical products and change the structure of exported chemical products according to standards existing in industrialised countries of the EU.

Problems of managing water resources in Ukraine are discussed by Olga Hulych in the article entitled *Threats to financial efficiency of water use in territorial communities in the conditions of administrative and territorial decentralization*. Highlighting the problem of collecting charges for the use of water and the role of local communities in ensuring the efficient use of this resource, the author proposes her solution in the conditions of administrative and territorial decentralization.

The development of knowledge resources is undoubtedly related to the system of education. In her article, Paulina Kucharska refers to Finnish experiences in this area, emphasising the innovativeness of the Finnish education system. Conclusions drawn from her analysis are used to formulate possible solutions for Poland. The author also identifies restrictions what Poland should try to overcome in an effort to create a high quality system of education.

Problems involved in the management of the education system are also discussed by Oksana Bodnar and Olha Ivasiv in their article entitled *Pedagogical Project Modelling and Risk Assessment*. The authors focus on the risk associated with the development and implementation of an educational project and describe how such risk can be decreased by employing professional risk assessment methods. Results of their experimental study show that the expert survey method can help to identify and assess risk, and consequently, select the most appropriate means of minimizing it.

The following articles are connected with knowledge systematisation and implementations of the idea of corporate social responsibility.

In the article entitled *Regional Film Funding as an initiative supporting the sustainable development of the region*, Barbara Majewska uses data provided by Statistics Poland, local government and the Polish Film Institute to demonstrate that the creation of Regional Film Funds has improved the system of film financing and has given regions new development opportunities thanks to more intensive promotional strategies and socio-economic activities.

Małgorzata Idasiak systematises the current research on corporate social responsibility in her article entitled *Indexing companies responsible socially in the world*. The author outlines the origin and key areas of the CSR concept on the basis of a review of the literature, highlighting some indexes that take into account the CSR principles.

Martyna Musiał's article entitled *The cultural sector in the context of the city development strategy: a case study* analyses the impact of the cultural sector on development strategies of local governments, using the example of Katowice.

The author shows that the inclusion of the cultural dimension in the development strategy facilitates the city's inhabitants access to cultural services and fosters the development of the entire region.

Unemployment, a problem of special importance for the national economy, is addressed by Bartosz Oziębłowski in his article entitled *The situation of young people on the labour market in the province of Silesia in 2011-2016*, in which the author also discusses the phenomenon of labour migration. Based on the analysis of statistical data, he points out that despite a steady decline in the unemployment rate among persons entering the labour market, the rate of this decline for young people with higher education is smaller. Noting the negative consequences of this phenomenon, the author concludes that while the current situation of young people on the labour market is generally optimistic, the expected limitation of European funding in the next financial perspective may negatively affect the future possibility of activating the unemployed population.

Although the articles included in this issue do not exhaust the topic, they can be of interest to students, scientists and practitioners seeking to develop their knowledge and looking for new interesting solutions.

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Comparative Assessment of Cross-sectoral Ties within the Chemical Industry: Ukraine, Poland, Germany

Abstract. *The chemical industry is one of the key export-oriented sectors of the national economy. Given the intensification of the processes of globalization and, consequently, competition for chemical products in the global market, this sector needs in-depth research. In particular, there is an urgent need to create and implement a new model for the development of domestic chemical industry that is in line with current global neo-industrial changes and challenges within the Industry 4.0. The purpose of the article is to formulate an analytical basis for determining the directions of development for the chemical production in Ukraine on the basis of comprehensive assessment of intersectoral ties within the chemical industry, as well as its level of cost and import dependence. Based on the calculations performed using data from the “cost-issue” matrix, the authors determine the use structure of chemical industry products in Ukraine in terms of types of economic activity, as well as its level of import dependence in the segment of intermediate consumption chemical products. The analysis reveals commodity and geographic structures of import of chemical products in Ukraine. The results are used to demonstrate analytically the possibility of reducing import dependence of the national economy on certain types of chemical products. The authors also conduct a comparative estimation of the level of consumption of chemical production in Ukraine and the countries of the European Union, proposing directions of development for the domestic chemical industry, which includes: activation of activity of basic production of inorganic and organic chemistry; reduction of import dependence of the national economy on certain types of chemical products; transformation of the structure of export of chemical products, in accordance with the standards of industrial countries.*

Keywords: *chemical industry, production, chemical products, import dependence, consumption*

1. Formulation of the problem

The chemical industry is one of the main segments of the world industry. This is a poly-element system of production, which includes the synthesis of substances with certain properties on the basis of mineral, organic and other raw materials by chemical processing. By producing products of intermediate consumption (raw materials and semi-finished products) for all sectors of the economy, modern chemical industry largely determines the level of their competitiveness, as well as the dynamics of development, the nature and direction of innovation processes. On the other hand, the wide assortment of household chemical products confirms its importance in the consumer market. The level of the chemical industry is a universally accepted criterion for the socio-economic development of any country. Thus, in industrialized countries, the share of chemical products in industrial production ranges from 5-8% to 13-16%, while in Ukraine – less than 3%.

The structure of chemical and chemical production in Ukraine over the past 5 years has not changed in terms of raw material orientation (with a share of less than 60%) and import dependence (the share of imports in the intermediate consumption of chemicals and chemical products is almost 65%) when it comes to the main chemical products, fertilizers and nitrogen compounds, plastics and synthetic rubbers in primary forms. Insignificant changes in this structure were the result of increased production of paint and varnish and other chemical products, primarily for consumer purposes. The latter is evidence of a non-systematic structural reform of the domestic chemical industry, which was carried out at the level of individual enterprises in response to the growth of local (sectoral) demand for certain types of chemical products. Thus, Ukrainian chemical production is export-oriented (the share of exports in the volume of sold chemical products in 2017 was nearly 95%), and therefore, the dynamics and the results of their functioning are directly dependent on the situation on the world market of chemical products.

2. Literature review

Given the key role of the chemical industry in supporting balanced socio-economic development, this sector of the economy is the subject of systematic studies of economic institutes of the National Academy of Sciences of Ukraine. Thus, a team of scientists at the Institute of Industrial Economics in a scientific report on the state of the Ukrainian industry conducted an assessment of the main indicators of the production of chemicals and chemical products in 2010-2015, and identified two strategic directions for the development of domestic chemical industry in the implementation of the neo-industrial concept [Amosha, Buleyev,

Zaloznova (ed.) 2017: 302-305]. The problem of the functioning of European chemical clusters and the prospects for their creation in Ukraine is described in detail in [Shevtsova, Shvets 2017]. Scientists of the Institute of Economics and Forecasting thoroughly investigated the impact of the implementation of the provisions of the Agreement on a free trade zone and the prospects for the development of chemical production in Ukraine, in particular the possibility of increasing the export potential and import substitution [Heyets, Ostashko (ed.) 2016: 69-80]. The assessment of the market for basic chemicals and fertilizers was carried out in [Deyneko 2018: 43-47].

Currently, chemical industry 4.0 (Chemicals 4.0) is being created in the world, which can be considered as a branch concept of the implementation of the Fourth Industrial Revolution. This concept is intended to become a leading strategic benchmark for bringing chemical technologies, industries and markets to a fundamentally new level thanks to the systematic use of “smart” innovations and information and communication technologies. The content and features of Industry 4.0 core industries are covered in [Shevtsova 2017]. In particular, the tools of Industry 4.0 in the chemical business are defined in terms of their activities within the framework of selected business strategies adopted by firms in order to achieve such key goals of activities as increased productivity and risk reduction (operational efficiency), generation of additional and new sources of income (economic growth). The key aspects of the implementation of Chemical Industry 4.0 are outlined, taking into account the global experience of the neo-industrial transformations of the chemical industry.

Ukraine also needs to develop and implement a new model for the development of the chemical industry to meet modern global neo-industrial changes and challenges within Industry 4.0. But this goal cannot be easily achieved, primarily because of the high resource and energy intensity of the domestic chemical industry, caused by the low technological level of production, the critical state of fixed assets and the lack of innovative activity of enterprises and many other factors, both external and internal.

The purpose of this article is to formulate the analytical basis for determining the directions of development for the chemical production in Ukraine on the basis of a comprehensive assessment of intersectoral ties within the chemical industry, as well as its level of consumption and import dependence.

3. Main results of the study

In 2016, the Ukrainian economy used chemical products worth 162,141 billion UAH, which is 10.6% more than in 2015 and 108.3% more than in 2013 (author’s calculations based on official Ukrainian statistical data for 2018)].

Chemical products, which in varying degrees are used for all types of economic activity, in 2016 amounted to 5.5% of the total volume of intermediate consumption of the Ukrainian economy. Agriculture and the chemical industry were the largest consumers of chemical products (production of chemicals and chemical products). Agriculture, forestry and fisheries accounted for almost 40% (or 64,780 billion UAH) of intermediate consumption chemicals, compared to 30% (23,312 billion UAH) in 2013 (Table 1).

During 2013-2016, the use of these types of economic activity of the chemical intermediate consumption increased by 177.9%. The main commodities of the chemical industry used in agriculture in Ukraine are mineral fertilizers, insecticides, fuel and lubricants. For comparison, in Poland (a country similar to Ukraine in terms of economic parameters), agriculture accounts for about 10% of intermediate consumption of chemical products (Table 2). Significantly higher consumption of chemical products in domestic agriculture is due to the increased agrarization of the national economy.

The second largest consumer of chemical products in Ukraine is the chemical industry itself, i.e. the production of chemicals and chemical products, with a share of 12.59% in 2016 vs. 16.80% in 2013. For example, in Poland, the share of chemical and chemical production in the structure of intermediate consump-

Table 1. The percentage share of the largest consumers of chemical products in Ukraine (in the segment of intermediate consumption)

NACE activities	2013	2014	2015	2016	Change (+/-)			
					2014-2013	2015-2014	2016-2015	2016-2013
Agriculture, forestry and fishing	30.00	28.74	36.78	39.95	-1.26	8.04	3.17	9.95
Manufacture of chemicals and chemical products	16.80	15.65	13.96	12.59	-1.15	-1.69	-1.37	-4.21
Manufacture of rubber and plastic products and other non-metallic mineral products	8.70	7.57	7.86	8.50	-1.13	0.29	0.64	-0.20
Manufacture of wood, paper, printing and reproduction	8.10	7.48	6.65	6.92	-0.62	-0.83	0.27	-1.18
Manufacture of food products; beverages and tobacco products	6.00	6.76	6.24	6.03	0.76	-0.52	-0.21	0.03

Source: based on data from SSSU 2018.

Table 2. The percentage share of the largest consumers of chemical products in Poland and Germany (in the segment of intermediate consumption) in 2016

NACE activities	Poland	Germany
Agriculture, forestry and fishing	10.85	2.50
Manufacture of chemicals and chemical products	24.19	58.46
Manufacture of rubber and plastic products and other non-metallic mineral products	18.25	14.88
Manufacture of wood, paper, printing and reproduction	5.36	2.52
Manufacture of food products; beverages and tobacco products	2.48	0.86

Source: based on data from Statistics Poland 2018; NBU 2018.

tion of chemical products is twice as high (nearly 25%) as in Ukraine, and in Germany it is even higher (almost 60%) (Table 2).

The share of production of chemicals and chemical products in the structure of intermediate consumption of products of the chemical industry reflects not only the level of development of the latter, but also the optimality of the structure, efficiency of functioning and the level of technological efficiency of the industrial sector of the economy as a whole. According to the results of the analysis, in Ukraine the value of this indicator is significantly lower than in the industrialized countries of the EU. And hence, the level of productivity of the domestic industry is lower: in 2016, the share of high and medium-high-tech manufacturing in the production of the processing industry in Ukraine was 16.67%, while in Poland – 32.17%, and in Germany – 57.33 % (author's calculations based on Eurostat data for 2018)]. Thus, the development of the Ukrainian chemical industry should not be seen as an intra-industry issue but as a problem of national economy.

The third largest use of chemical products in Ukraine is the production of rubber and plastic products, technologically close to the chemical industry. The share of this production in the structure of intermediate consumption of chemical products during the analyzed period was characterized by a changing trend: a decrease in 2013-2014, but a growth in 2016.

A similar trend was observed in the dynamics of products in this category, whose index dropped from 97.4% to 92.8% over 2013-2015, but which increased to 108.5% in 2016. Polish rubber and plastic products use about 20% of the total volume of chemicals for intermediate consumption used in Poland.

In addition to the three types of economic activity, the main consumers of chemical products in Ukraine include companies in the sector of wood processing, paper production, printing and duplication, the share of which in the structure of intermediate consumption of chemical products in 2014 and 2015 tended to decrease, which was caused primarily by a decrease in indices of this produc-

tion to 96.0% and 88.9% respectively, as well as a decrease in its technological capacity. Thus, during this period raw material exports of woodworking industry increased. In 2016, the share of wood, paper, printing and replicating in the intermediate consumption of chemical industry products (based on paint and varnish products) slightly increased to 6.95% (vs. 8.10% in 2013).

The production of food, beverages and tobacco products uses the broadest range of chemical products, in particular: edible salt and soda, spices, various food additives (dyes, preservatives, antioxidants, stabilizers, emulsifiers, flavor enhancers, glazing agents) and many other chemicals and food ingredients. The role of chemical products in ensuring the functioning of food production confirms the relatively constant importance of the latter share in the structure of intermediate consumption of chemical products in Ukraine, which remained at the level of 6.0% in the period 2013-2016. For comparison, in Poland, the value of this indicator in 2014 was 2.48% (vs. 3.52% in 2005), and in Germany – only 0.86%. These differences are due to the different share of the food industry in the economies of these countries. Thus, the share of the food industry in the output of the processing industry of Ukraine in 2016 amounted to 33.88%, while Poland – 19.90%, and Germany – 9.88% (author's calculations by Eurostat data for 2018).

Table 3. The percentage share of imports in the intermediate consumption of chemical products in Ukraine (by main consumers)

NACE activities	2013	2014	2015	2016	Change (+/-)			
					2014-2013	2015-2014	2016-2015	2016-2013
Agriculture, forestry and fishing	86.70	98.67	96.34	99.63	11.97	-2.33	3.29	12.93
Manufacture of chemicals and chemical products	97.28	92.16	97.02	96.16	-5.12	4.86	-0.86	-1.12
Manufacture of rubber and plastic products and other non-metallic mineral products	93.68	77.67	64.89	75.22	-16.01	-12.78	10.33	-18.46
Manufacture of wood, paper, printing and reproduction	80.72	50.84	47.7	47.34	-29.88	-3.14	-0.36	-33.38
Manufacture of food products; beverages and tobacco products	68.06	97.49	55.82	95.84	29.43	-41.67	40.02	27.78

Source: based on data from SSSU 2018.

In addition to the low level of technological efficiency of the industrial sector, one of the most acute problems in Ukraine is the high level of import dependence, in particular, in the segment of intermediate consumption of chemical products. Thus, in 2016, the share of imports consumed by all sectors of the national economy of manufactured goods of chemical substances and chemical products amounted to 83.31% (vs. 77.36% in 2015) (the author's calculations based on official Ukrainian statistical data for 2018). Among the main consumers of chemical products, the largest amount of imported goods (almost 95% in 2016) were by agriculture, chemical and food industry (Table 3).

During 2013-2016, the share of imports in the intermediate consumption of chemical products increased significantly in the production of food products, beverages and tobacco products (by 27.78 pp.) and agriculture (by 12.93 pp.) with the increase in production volumes in these sectors of the economy. In contrast, in the production of wood and paper and in the printing and duplication industry, as well as in the manufacture of rubber and plastic products, the share of imported chemical products during this period decreased, respectively, by 33.38 pp. and 18.46 pp. As regards the domestic chemical industry (the production of chemicals and chemical products), over 95% of chemical products were imported in the analyzed period.

Chemical products are mainly imported to Ukraine from European countries (with almost 50%) (Table 4). During 2013-2017, the geographical structure of the import of chemical products was relatively stable, however, there was a slight decrease (by 2.3 pp.) in the imports from European countries, accompanied by the growth of the Asian countries (by 1.7 pp.) and the CIS (by 0.6 pp.).

At the same time, two opposite trends were observed as regards Ukrainian imports of basic chemicals (codes 28, 29, 31):

1) full or partial reorientation of imports from the Russian Federation to the countries of Europe, China, etc.;

Table 4. The geographical structure of imports of chemical products in Ukraine

The region of the world	2013	2014	2015	2016	2017	Change (+/-)				
						2014-2013	2015-2014	2016-2015	2017-2016	2017-2013
Europe	54.8	53.6	51.4	52.6	52.5	-1.2	-2.2	1.2	-0.1	-2.3
Asia	18.3	20.2	20.1	21.2	20.0	1.9	-0.1	1.1	-1.2	1.7
Africa	0.3	0.4	0.4	0.3	0.3	0.2	0.0	-0.1	0.0	0.0
America	4.1	4.4	4.1	4.3	4.1	0.2	-0.3	0.2	-0.2	0.0
CIS	22.4	21.3	24.0	21.6	23.0	-1.1	2.7	-2.4	1.4	0.6

Source: based on data from NBU 2018.

Table 5. The geographic structure of Ukrainian imports by individual commodity positions of basic chemistry in 2013 and 2017

HS Code	Commodity position	Country	2013		Country	2017	
			Thousand dollars USA	%		Thousand dollars USA	%
2808	Nitric acid; sulphonitric acids	Russian Federation	5458	98.77	Poland	2309	77.90
		Spain	43	0.78	Czech Republic	583	19.67
		Germany	17	0.31	Germany	57	1.92
		Other countries	8	0.14	Other countries	15	0.51
		Total	5526	100.00	Total	2964	100.00
2850	Hydrides, nitrides, azides, silicides and borides, whether or not chemically defined; other than compounds which are also carbides of heading no. 2849	Russian Federation	154	54.80	China	232	81.69
		China	54	19.22	India	39	13.73
		Japan	41	14.59	Japan	10	3.52
		Other countries	32	11.39	Other countries	3	1.06
		Total	281	100.00	Total	284	100.00
2904	Sulphonated nitrated or nitrosated derivatives of hydrocarbons; whether or not halogenated	Russian Federation	1329	53.05	Czech Republic	105	27.34
		Germany	421	16.81	China	102	26.56
		Czech Republic	292	11.66	USA	53	13.80
		Other countries	463	18.48	Other countries	124	32.29
		Total	2505	100.00	Total	384	100.00
2942	Organic compounds; n.e.c. in chapter 29	Russian Federation	516	72.98	India	25	46.30
		France	100	14.14	China	9	16.67
		USA	36	5.09	Italy	8	14.81
		Other countries	55	7.78	Other countries	12	22.22
		Total	707	100.00	Total	54	100.00
2849	Carbides. whether or not chemically defined	Kazakhstan	2316	27.23	Slovakia	3190	82.39
		Slovakia	2177	25.59	China	254	6.56
		Russian Federation	2034	23.91	South Africa	132	3.41
		Other countries	1979	23.27	Other countries	296	7.64
		Total	8506	100.00	Total	3872	100.00

Source: based on data from SFSU 2018.

2) growth of the share of the Russian Federation in the structure of imports of certain commodity items of basic chemistry.

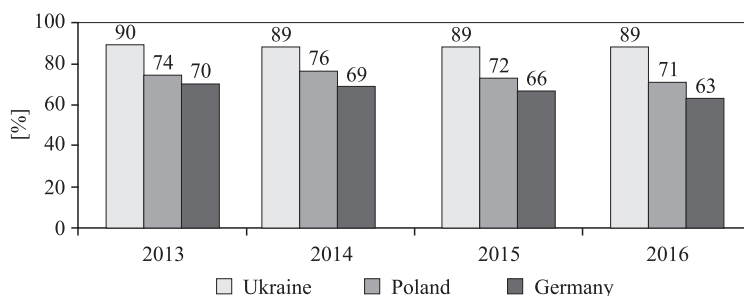
Thus, in 2013, the Russian Federation was the key exporter of nitric acid and sulphonitric acid (HS Code: 2808), while in 2017, this role was taken over by Poland and the Czech Republic (Table 5). A similar reorientation of import flows occurred for other commodity positions, namely: 2850; 2904; 2942; 2849 (HS Code).

In addition to the growing import dependence in the segment of intermediate consumption of basic chemicals products, Ukraine has an acute problem of the cost of chemical production. The expenditure indicator shows the share of expenditures in intermediate consumption (goods and services). In Ukraine, one can observe a gradual (but very slow) decrease in the value of this indicator. In 2016, the share of expenditures in the production of domestic chemical products was 88.78% (compared to 89.55% in 2013) and was 17.47 pp. higher than in Poland and 25.77 pp. higher than in Germany (Chart 1).

The level of consumption of the Ukrainian chemical industry is the highest among the EU countries; in 2016 its value ranged from 47.2% in Greece to 76.0% in Italy (author's calculations based on data for 2018 from the Ukrainian Statistical Service and Eurostat). At the same time, the share of domestic products and services in the structure of expenses for the production of chemicals and chemical products has been increasing. Thus, the value of this indicator in 2017 reached 46.76% vs. 36.33% in 2013 (Table 6).

In its production activities, the domestic chemical industry used products of all types of economic activity. In 2016, 76.38% of products were produced in four types of economic activity (chemical and chemical production; crude oil and natural gas production; electricity, gas, steam and air conditioning, wholesale and retail trade, repair of motor vehicles and motorcycles) services used in the

Chart 1. The share of expenses (intermediate consumption) in the production of chemicals and chemical products



Source: based on data from SSSU 2018 and Eurostat 2018.

Table 6. The indicators of cost of chemical industry of Ukraine

Indicator	2013	2014	2015	2016	Change (+/-)			
					2014-2013	2015-2014	2016-2015	2016-2013
Share of input in the output	89.55	89.05	89.08	88.78	-0.49	0.03	-0.30	-0.77
of which:								
– domestic products and services	36.33	41.31	39.82	46.76	4.97	-1.48	6.94	10.43
– imported products and services	53.22	47.75	49.26	42.03	-5.47	1.52	-7.24	-11.19

Source: based on data from SSSU 2018.

production of chemicals and chemical products (the author's calculations based on Ukrainian statistical data for 2018).

The production of chemicals and chemical products during 2013-2016 increased its share in the structure of expenses of the chemical industry of Ukraine by 3.89 pp. (Table 7). Such a tendency is a sign of an increase in the level of technology of domestic chemical production. This indicator can also be considered a general indicator of the functioning of the chemical industry. For example, in Poland in 2014, its value was 52.52%, and in Germany – 58.46% (Table 8).

To ensure the activity of chemical production in Ukraine, the second most important element is the extraction of crude oil and natural gas. This is because oil, coal and natural gas are the main elements of the raw material base of the domestic chemical industry. Accordingly, changes in prices of this raw material

Table 7. Types of economic activity whose products constitute the largest share in the structure of expenses (intermediate consumption) of the chemical industry of Ukraine (%)

NACE activities	2013	2014	2015	2016	Change (+/-)			
					2014-2013	2015-2014	2016-2015	2016-2013
Manufacture of chemicals and chemical products	29.69	31.73	31.27	33.58	2.04	-0.46	2.31	3.89
Mining of crude oil and natural gas	38.90	27.79	32.99	22.31	-11.12	5.20	-10.68	-16.59
Electricity, gas, steam and air conditioning supply	9.14	9.60	7.83	10.78	0.47	-1.77	2.94	1.64
Wholesale and retail trade; repair of motor vehicles and motorcycles	0.22	8.38	7.76	9.71	8.17	-0.63	1.95	9.49

Source: based on data from SSSU 2018.

Table 8. Types of economic activity whose products constitute the largest share in the structure of expenses (intermediate consumption) of the chemical industry of Poland and Germany in 2016

NACE activities	Poland	Germany
Manufacture of chemicals and chemical products	52.52	58.46
Mining of metal ores, other minerals and quarries; provision of auxiliary services in the extractive industry and the development of quarries	7.65	3.40
Extraction of crude oil and natural gas	0.00	0.60
Electricity, gas, steam and air conditioning supply	3.86	2.46
Wholesale and retail trade; repair of motor vehicles and motorcycles	0.11	2.74

Source: based on data from Statistics Poland 2018; FSO 2018.

are one of the decisive factors influencing the cost of chemical products. During 2013-2016, the share of crude oil and natural gas production in the structure of expenses of the chemical industry decreased by 16.59 pp. and in 2016 it was equal to 22.31%. For comparison, the share of crude oil and natural gas (along with metal ore mining, mining and quarrying) products in the structure of the costs of the chemical industry in Poland in 2014 was 7.65% and in Germany – 4.0% (in particular, the share of crude oil and natural gas production is only 0.60%). Thus, in the Polish and German chemical industries, the use of metal ores and other minerals predominates, while in the Ukrainian industry depends mainly on the use of oil, coal and natural gas. In contrast, the share of the production of metal ores, other minerals and quarries in the structure of expenditures of the domestic chemical industry decreased by 2.66 pp. over 2013-2016 and in 2016 was only 0.52% (based on Ukrainian statistical data for 2018).

Electricity, gas, steam and air conditioning supply is the third type of economic activity in terms of the share of its products in the structure of expenses of the chemical industry. The value of this indicator in Ukraine in 2016 amounted to 10.78% (vs. 9.14% in 2013), while in Poland in 2014 – 3.86%, and in Germany – 2.94%. More and more energy consumption in Ukraine is due to the structure of domestic chemical production, in which the products of inorganic chemistry and mineral fertilizers prevail, whose production processes are more energy-intensive.

The share of products and services of wholesale and retail trade; repair of motor vehicles and motorcycles in the structure of expenses of the chemical industry of Ukraine during 2013-2016 increased by 9.49 pp. This tendency is due to a considerable rapid increase in the cost of fuel and lubricants and energy, and hence of transport services in 2014, which, in turn, resulted from the devaluation of the national currency and the negative impact of other macroeconomic factors. For example, in the structure of the costs of the

chemical industry in Poland, the share of products and services of this type of economic activity in 2014 was only 0.11% and Germany – 2.74%. Therefore, in order to reduce the cost of chemical industry in Ukraine, it is necessary to improve the activity of transport and logistics in general, and in particular, supply systems of raw materials for chemical production and distribution of chemical products.

In Ukraine, there was a positive trend associated with a decreasing import dependence of the chemical industry. Thus, the share of imports in the cost of production of chemicals and chemical products in 2013-2016 decreased by 17.62 pp. and in 2016 amounted to 47.78% (based on Ukrainian statistical data for 2018). The most important is the decrease in the dependence of the domestic chemical industry on imported products for the extraction of crude oil and natural gas – by 35.25 pp., compared to 2013 (Table 9).

The share of imported services of this type, such as wholesale and retail trade, repair of motor vehicles and motorcycles in the expenses of the chemical industry since 2014, is negligible and imported energy is not used at all. At the same time, the level of dependence on imports of chemical products in 2016 remained critically high – 96.16%.

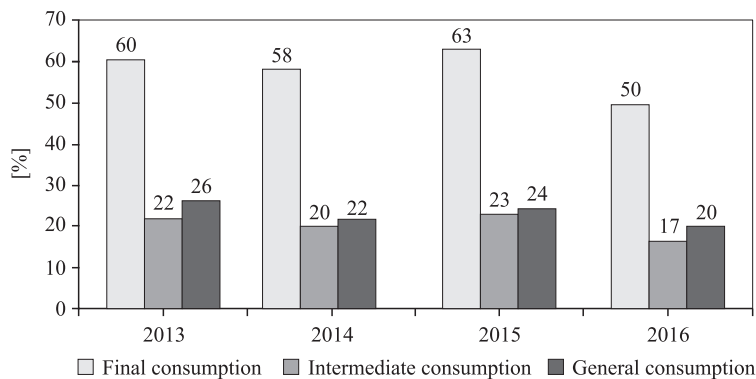
Summarizing the results of the analysis, one can identify the relatively low level of technological capacity of the chemical industry of Ukraine, whose production and export structure is dominated by the production of energy-intensive raw materials for inorganic chemistry and mineral fertilizers. In addition, these production activities are completely import-dependent and, at the same time, export-oriented – the share of exports in the volume of sales of basic chemicals

Table 9. The percentage share of imports in the costs of the chemical industry of Ukraine (in the category of key types of economic activity)

NACE activities	2013	2014	2015	2016	Change (+/-)			
					2014-2013	2015-2014	2016-2015	2016-2013
Manufacture of chemicals and chemical products	97.28	92.16	97.02	96.16	-5.13	4.86	-0.85	-1.12
Extraction of crude oil and natural gas	81.27	71.29	66.79	46.02	-9.97	-4.50	-20.78	-35.25
Electricity, gas, steam and air conditioning supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wholesale and retail trade; repair of motor vehicles and motorcycles	6.32	0.38	0.33	0.51	-5.93	-0.05	0.17	-5.81

Source: based on data from SSSU 2018.

Chart 2. The level of satisfaction of the demand for chemical products in the domestic market by the Ukrainian chemical industry (by type of consumption)



Source: based on data from SSSU 2018.

in 2017 amounted to 69.82%. Therefore, due to specialization in raw materials, export-orientation and significant import dependence (in the intermediate consumption segment), the domestic chemical industry in 2013-2016 only partially (with a decreasing trend) met the demand for chemical products on the Ukrainian domestic market (Chart 2).

4. Conclusions

In view of the development of chemical production in Ukraine, the future continuation of these tendencies is irrational and economically dangerous, especially during the period of the dynamic transformation of the world market of chemical products. Thus, there is an urgent need to reform the domestic chemical industry, especially as regards optimization of the structure of production and exports according to criteria of increasing economic efficiency and technological efficiency. Hence, the prospects for the development of the chemical industry in Ukraine should involve:

- 1) activation of the basic production of inorganic and organic chemistry;
- 2) reduction of import dependence of the national economy on certain types of chemical products;
- 3) changes in the structure of exports of chemical products in accordance with the standards of the industrialized countries of the EU.

The outlined directions will be the subject of the authors' further research on the chemical industry.

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Porównawcza ocena międzysektorowych związków przemysłu chemicznego Ukrainy, Polski i Niemiec

Streszczenie. *Przemysł chemiczny jest jednym z kluczowych sektorów gospodarki ukierunkowanych na eksport. Wobec nasilenia procesów globalizacji, a w konsekwencji konkurencji na światowym rynku produktów chemicznych sektor ten wymaga dogłębnych badań. W szczególności*

istnieje pilna potrzeba opracowania i wdrożenia nowego modelu rozwoju przemysłu chemicznego, który byłby zgodny z obecnymi globalnymi przemianami neoprzemysłowymi i wyzwaniem w branży 4.0. Celem artykułu jest stworzenie analitycznej bazy do określenia kierunków rozwoju produkcji chemicznej na Ukrainie na podstawie kompleksowej oceny powiązań międzysektorowych przemysłu chemicznego, a także jego poziomu konsumpcji i uzależnienia od importu. Wyniki obliczeń przeprowadzonych przy użyciu danych bilansu przepływów międzybranżowych posłużyły autorom do określenia struktury wykorzystania przemysłu chemicznego na Ukrainie pod względem rodzajów działalności gospodarczej oraz poziomu jej zależności od importu w segmencie zużycia pośredniego produktów chemicznych. W artykule przedstawiono struktury towarowe i geograficzne importu produktów chemicznych na Ukrainie. Wyniki analizy pozwoliły na ukazanie możliwości zmniejszenia uzależnienia gospodarki krajowej od importu niektórych rodzajów produktów chemicznych. Autorzy przeprowadzili także porównanie poziomu zużycia produkcji chemicznej Ukrainy i krajów Unii Europejskiej. Zaproponowali następujące kierunki rozwoju krajowego przemysłu chemicznego: aktywacja działalności podstawowej produkcji chemii nieorganicznej i organicznej; zmniejszenie zależności gospodarki krajowej od importu niektórych rodzajów produktów chemicznych; transformacja struktury eksportu produktów chemicznych, zgodnie ze standardami krajów uprzemysłowionych.

Słowa kluczowe: przemysł chemiczny, produkcja, produkty chemiczne, uzależnienie od importu, konsumpcja

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Threats to Financial Efficiency of Water Use in Territorial Communities in the Conditions of Administrative and Territorial Decentralization

Abstract. *The main purpose of the article is to outline the threats to financial efficiency of water use caused by insufficient revenues in local community budgets, as well as provide suggestions on how to strengthen the role of communities in ensuring the efficient use of water resources. The study reveals the current state of financing obtained by territorial communities to ensure efficient water use, in particular, supplying local budgets with revenues from charges for special water use. The author identifies the main causes for the low level of revenues from charges for the use of water in the structure of payments and a minor increase in contributions to local budgets of administrative and territorial units at the basic level (territorial communities). The article offers recommendations for the efficient use of water resources in territorial communities in the conditions of administrative and territorial decentralization.*

Keywords: *water resources, water charges, territorial communities, local budgets, administrative and territorial decentralization*

1. Introduction

The administrative and territorial decentralization reform, which is being implemented in Ukraine, aims to delegate power and corresponding financial resources to lower administrative levels, in line with the principle of subsidiarity.

However, when it comes to the use of natural resources of territorial communities, the situation has not improved. Moreover, in general, negative developments have contributed to a dramatic decrease in local budget revenues from charges for the use of natural resources.

As a result of excessive power centralization, planning and control of natural resource use, consolidation of the dominant charge for the special use of natural resources in central budgets, it is not possible to increase the complexity of the use of natural resources and the effectiveness of project implementation. Taking into account the current situation of water use at the local level, it is important to consider new opportunities for territorial communities to increase the efficiency of water use and ways and means in which this goal can be achieved.

The main purpose of the article is to outline the threats to financial efficiency of water use from insufficient payments in local community budgets, as well as provide suggestions on how to strengthen the role of communities in ensuring the efficient use of water resources.

2. Theoretical background

Research on various aspects of water use and water protection is carried out by many scientists. Their works are devoted to questions of safety and sustainable water use [Sokol, Pidlisnyuk 2009, etc.], institutional environment of water use [Khvesyuk, Golyan, Yarots'ka, Korzhunova 2008, etc.], management aspects [Stashuk, Mokin, Grebin, Chunarov (eds.) 2014, etc.], charges and fiscal policy [Khvesyuk (ed.) 2014; Ohon` 2010, etc.], ecological-economic and environmental issues [Galushkina 2010, etc.].

The administrative and territorial decentralization reform implemented in Ukraine has intensified research into changes and aspects of water use in the new environment [Khvesyuk, Levkovska, Mandzyk 2015; Khvesyuk, Lyzun 2015, etc.]. However, financial aspects of decentralization require in-depth research, with special emphasis on rental, fiscal and investment policies of water use.

3. Revenues from the use of water in the structure of the consolidated budget of Ukraine

In 2013, local budgets in Ukraine received UAH 15.0 billion in water use revenues and UAH 14.6 billion in 2014, however, starting from 2015, these amounts have decreased significantly: to 2.15 billion UAH in 2015, UAH 2.52 billion in 2016 and UAH 2.47 billion in 2017. This sharp decrease in revenues from charges for special use of natural resources starting from 2015 results from the revision of the natural resource payments distribution between the state and local budgets, as well as the improper identification of the base amounts for special natural resource use at local level. The share of local government budgets in

Table 1. Receipt of fees for the use of other natural resources in the Consolidated Budget of Ukraine

Specification	2013		2014		2015		2016		2017	
	million UAH	%	million UAH	%	million UAH	%	million UAH	%	million UAH	%
Revenue from the use of other natural resources	28863.0	100	33596.7	100	41958.2	100	46608.4	100	51132.3	100
State budget	13860.0	48	19136.1	56.7	39803.8	94.9	44092.2	94.6	48661.1	95.2
Local budgets	15002.9	52	14560.6	43.3	2154.4	5.1	2516.2	5.4	2471.2	4.8

Source: *Byudzhet Ukrainy 2017. Statystychnyy zbirnyk 2018.*

revenues from charges for special use of natural resources in the Consolidated Budget of Ukraine, which amounted to 52.0% in 2013 and 43.3% in 2014, fell to barely 5.1% in 2015, 5.4% in 2016 and 4.8% in 2017 (Table 1).

The decreasing trend in the share of local government budgets in revenues from the special use of natural resources in the Consolidated Budget of Ukraine indicates that natural resource payments continue to be collected at the central (state) and regional levels, which deprives local authorities of the basic motivation to improve the administration of the system of charges for the use of natural resources.

The peculiarities and problems of natural resource use at the level of territorial communities indicate a significant differentiation in the importance of resources across communities, which is most clearly manifested in the supply of funds to local budgets through rental (lease) payments. The great part of natural resource charges are charges for the use of land, subsoil, and forest resources.

4. Water resources

In the structure of payments, charges from the special use of water represent a small share (2-3%), which is an order of magnitude smaller in the Consolidated Ukrainian Budget revenues – 0.1-0.2% (Table 2).

The fees for the use of other natural resources became a component of budgets of united territorial communities starting from 2016 and amounted to UAH 31.5 million in 2016, UAH 65.5 million in 2017, including charges for special use of water: UAH 0.7 thousand (2016), UAH 5.5 thousand (2017).

The structure of existing revenues from the special water use in the budgets of territorial communities is as follows [Budget Code of Ukraine, 2001]:

– 45% of revenues from special use of water (except for rental fees for special use of water in water facilities of local importance), which is credited to the Kyiv and Sevastopol city budgets by users of water at the place of collection;

Table 2. Receipt of payments for special use of water in the Consolidated Budget of Ukraine

Year	Million UAH	% in the structure of payments	% in the structure of revenues of the Consolidated Budget of Ukraine
2015	1108.151	2.6	0.2
2016	1397.803	3.0	0.2
2017	1501.000	2.9	0.1

Source: *Byudzhet Ukrainy 2017. Statystychnyy zbirnyk 2018.*

– revenues from special use of water by water facilities of local importance. Such payments are credited to the budget of local municipality at the place of tax registration of the payer;

The general fund's revenues of municipal, rural and settlement budgets:

– revenue from charges for the special use of water by water facilities of local importance;

– revenue from charges water facilities (parts thereof), which are provided for use under a lease by local councils, which is credited to the budgets of the local municipality;

Revenues of the special local budgets fund:

– a 10% deduction of the drinking water price by enterprises engaged in the supply of drinking water through centralized water supply systems with deviations from the relevant standards, which are credited to the budgets of cities, towns, villages, and the combined territorial communities.

A small proportion of revenues for the special use of water resources is transferred to local budgets, and in absolute terms, it is a small amount that is insignificant in the structure of the local budget's revenues.

Another consideration that needs to be taken into account are the conditions for allocating charges for the special use of water by water facilities of local importance. Such revenues are credited to local self-government budgets at the place of tax registration of the payer, while a similar charge for other natural resources (charge for the use of mineral resources, for the extraction of local minerals and purposes not related to the extraction of minerals, for special use of forest resources (except for wood harvested as part of logging for main use)), is credited to budgets of local government at the location of the corresponding natural resources.

In the structure of revenues for the use natural resources credited to local budgets, charges for the use of water resources are extremely insignificant, or they are completely absent and do not contribute to the growth of the local budget revenue. This is due to several circumstances. First of all, the vast majority of water bodies are classified as waters of national importance, and fees for the use of such water are transferred to the state (45% + 10%) and regional

(45%) budgets. Local water bodies only include surface waters that are located and used within the same area and which are not classified as water bodies of national importance as well as underground waters that cannot be the source of centralized water supply.

On the other hand, the inclusion of revenue from the special use of water from reservoirs of local importance in the budgets of local government at the place of the payer's tax registration is not in line with the principle of paying for the use of a natural resource to the budget at the location of the resource.

The absolute amount of revenues from the special use of water is also influenced by existing rates (Article 255.5 of the Tax Code of Ukraine), which are relatively small and do not really contribute much to the final funds that local governments can use.

Thus, rates for special use of surface water range from UAH 23.32 per 100 cubic meters for the Danube basin, including all tributaries to UAH 139.66 per 100 cubic meters for the Azov Sea rivers.

Rates for special use of groundwater range from UAH 61.09 per 100 cubic meters for the Transcarpathian region to UAH 142.45 per 100 cubic meters for Bogorodchansky, Verkhovyna, Dolynsky, Kosivsky, Nadvirnyansky, Rozhnyatovsky districts of Ivano-Frankivsk region. For example, the charge for special use of groundwater is 84.32 UAH per 100 cubic meters in the Lviv region.

Thus, the rates for the special use of surface water range from UAH 23.32 per 100 cubic meters in the Danube basin, including all tributaries, to UAH 139.66 per 100 cubic meters for the Azov Sea rivers.

In order to increase the resource-saving role of water use payments, they should be as close as possible to the location of the resource and should be spent to finance environmental measures that are most appropriate at the local level, and therefore these payments should be mainly allocated to local budgets.

Given the formation of a capable integrated territorial cluster or OTG¹, it is necessary to consider the possibility of redirecting part of the revenue for the special use of water, which is included in the regional budgets (45%), to the budget of the OTG. This applies mostly to OTGs that have underground water, which is used as a source of centralized water supply, also for settlements located outside OTGs (in the vast majority, in fact, regional centers).

So, we consider that it is necessary to:

- take control of charges for the special use of water in the budget at the location of the resource;
- to grant the right to establish rates for the special use of water from water bodies of local importance to the authorities of the territorial unit where these water objects are located;

¹ In Ukrainian: об'єднана територіальна громада (OTG).

– to redistribute the share of revenue from the special use of water from water bodies of state importance: 50% to the state budget; 40% to the regional budget; 10% to budgets of communities of local administrative-territorial units where these water bodies are located;

– to establish more diverse rates for the special use of water (it is necessary to differentiate approaches depending on whether water is a component of the finished product (production of beverages, canned goods, etc.), or is required as an element of the production process (agriculture, energy, etc.);

– in the process of developing a new system of charges for the special use of water, it is necessary to consider the level of provision of the respective territories with surface and groundwater, as well as the volumes of their use;

– to raise the rates for the special use of water resources from surface and the underground sources in industrially developed economic regions (Donbass and Pridneprovya) and in shallow water regions;

– to raise water pollution standards with respect to surface and underground sources for enterprises that produce beverages and sell drinking bottled water;

– to restrict benefits and other kinds of privileges regarding charges for special water use, especially for thermal power enterprises;

– to improve the regulatory framework on taxation of reservoirs' pollution;

– to increase the differentiation and the number of environmental tax rates for discharges of pollutants directly to water bodies, increasing the fine for the dumping of pollutants to the European water system, taking into account the toxicity of discharges;

– to review the privileges regarding the collection of charges for special water use in relation to water resources of national and local importance;

– increase taxes on those activities and forms of consumption that are environmentally harmful to water objects and to charge them (their greater share) to local budgets at the place of environmental damage.

Along with the improvement of pricing policy, economic and financial mechanisms of water use and protection of water resources will be equally important for improving the efficiency of the use of natural resources in the conditions of administrative and financial decentralization.

Due to the limited budget resources of local communities, it is important to find new sources of financing for water and water protection measures aimed at eliminating pollution, ensuring environmental safety, measures related to reproduction and protection of water resources.

In order to increase the investment potential of united territorial communities, ensure an expanded reproduction of water resources and, above all, modernization of water management and water protection infrastructure, it is necessary to establish partnerships between communities and municipalities with business entities regarding the use of water facilities serving as the main sources of drinking

water supply, and water management facilities, which are integral parts of the water supply and sewage system and water management clearing-reclamation complexes, by expanding the list of types of water use, which are covered by the public-private partnership agreements.

The priority directions of investment support for the realization of water management and water protection projects at the level of the united territorial communities should include:

- source arrangement of drinking water supply and expansion of centralized water supply networks in rural areas;
- modernization projects of water intake systems, water supply networks, circulating water supply, drainage systems, the introduction of low-water technologies at industrial enterprises;
- projects of modernization, reconstruction and technical re-equipment of municipal water supply and sewage systems, as well as water treatment systems, water purification, and the identification of drinking water quality;
- projects of modernization and reconstruction of reclamation systems in the area of drainage reclamation and irrigated agriculture. In the framework of financial support for the fulfillment of certain powers of the state in the field of water relations, transferred to local self-government bodies, measures financed from local budgets should be provided with an appropriate increase in the number of budget allocations. At the same time, the indicated increase can be carried out in part and at the expense of redistribution of budgetary funds.

The funds of local budgets are supposed to be used for the construction and reconstruction of sewage treatment plants and storm water drainage systems. At the same time, given the low level of budgetary provision of the combined territorial communities and municipalities, their budgets should be subsidized on the basis of ensuring high-cost effectiveness.

Extra-budgetary funds, mainly of business origin, should be aimed at the introduction of circulating and consecutive water supply systems, reconstruction of treatment facilities using innovative technologies.

5. Conclusions

As regards the use of natural resources of territorial communities, in general, the situation has deteriorated, which has led to a sharp decrease in local budget revenues from charges for the use of natural resources. In the structure of the Consolidated Budget of Ukraine, the share of charges and fees for the use of other natural resources that go to local budgets has decreased from 43.3% in 2014 to 4.8% in 2017.

In the structure of payments, revenues from special water use are insignificant (2-3%), while in the revenue structure of the Consolidated Budget of Ukraine, they are at the level of 0.1-0.2%.

In the budgets of combined territorial communities, charges and fees for the use of other natural resources received in 2016 amounted to UAH 31.5 million, and UAH 65.5 million in 2017, including the revenue for the special use of water: UAH 0.7 thousand in 2016, and UAH 5.5 thousand in 2017.

The absolute values of payments for the special use of water from water reservoirs are also influenced by the established rates, which are not too high and cannot be changed by local government.

Thus, the rates for special surface water use range from UAH 23.32 per 100 cubic meters for the Danube basin, including all tributaries to UAH 139.66 per 100 cubic meters for the Azov Sea rivers.

The rates for special use of groundwater range from UAH 61.09 per 100 cubic meters for the Transcarpathian region to UAH 142.45 per 100 cubic meters for Bogorodchansky, Verkhovyna, Dolynsky, Kosivsky, Nadvirnyansky, Rozhnyatovsky districts of Ivano-Frankivsk region.

In view of the above, in the current provision of local budgets through payments and fees for the use of other natural resources, the role of territorial communities should be strengthened to ensure a more effective use of water resources, which can be achieved by:

- increasing the resource-saving role of payments;
- differentiating the system of water and environmental taxes;
- promoting partnership cooperation between communities and municipalities, including entrepreneurs.

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Zagrozenia efektywności finansowej wykorzystania zasobów wodnych wspólnot terytorialnych w warunkach decentralizacji administracyjnej i terytorialnej

Streszczenie. *Głównym celem artykułu jest identyfikacja zagrożeń dla efektywności finansowej wykorzystania zasobów wodnych wynikającej z niewystarczających opłat czynszowych dla budżetów wspólnot terytorialnych, a także przedstawienie sugestii dotyczących sposobów wzmocnienia roli wspólnot terytorialnych w zapewnianiu efektywnego wykorzystania zasobów wodnych. Badanie ujawnia aktualny stan finansowego wsparcia wspólnot terytorialnych w rozwiązywaniu problemów efektywności wykorzystania zasobów wodnych, w szczególności ze względu na zasilanie budżetów lokalnych przychodami z czynszu za specjalne wykorzystanie wody. Zidentyfikowane zostały główne przyczyny niskich dochodów z wykorzystania zasobów wodnych w strukturze opłat czynszowych, niskie wypełnienie budżetów lokalnych jednostek administracyjno-terytorialnych poziomu podstawowego (wspólnot terytorialnych). Przedstawiono główne sposoby zwiększenia efektywności wykorzystania zasobów wodnych wspólnot terytorialnych w warunkach decentralizacji administracyjnej i terytorialnej.*

Słowa kluczowe: *zasoby wodne, czynsz, wspólnoty terytorialne, budżety lokalne, decentralizacja administracyjna i terytorialna*

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Innovativeness of the Finnish Education System. Suggestions of Solutions for Poland

***Abstract.** The main aim of the article is to examine the development path of the Finnish education system since the political transformation in Europe after the collapse of the Soviet Union. The author presents the structure and characteristics of the education system in Finland, as well as the way in which it is shaped by public and private institutions. The article highlights the process of modernization of the economy, from an economy based on agriculture and industry to a knowledge-based economy. Analysis of the current condition of the Finnish economy is accompanied by information about the country's position in the global competitiveness rankings. Finally, the author indicates possibilities of implementing certain Finnish solutions in Poland and identifies limitations that should be overcome in the process of building a high quality education system.*

***Keywords:** Finland, innovations, research and development, education system*

1. Introduction

Finland is not rich in natural resources and its climate is not suitable for agriculture. As regards political conditions during the post-war period, they were also not very conducive to economic development and had to be overcome with difficulty to lead a post-war boom. After World War II, Finland remained under the political control of the Soviet Union and for decades developed as an agricultural country. Dominated by the Soviet Union, Finland suffered big economic losses, resulting, among other things, from having to reject economic assistance offered under the Marshall Plan or the obligation to pay huge war

reparations imposed on Finland for its alliance with Nazi Germany [Olchowik-Adamowska, Stettner-Stefańska, Ławecki 2004: 89]. The economic situation deteriorated considerably at the start of the 1990s, following the crisis, caused, among other things, by external factors (disintegration of USSR and the resulting decline in trade exchange with the Soviet Union) and internal factors (the increasing costs of the welfare state and the resulting decline in government spending) [Gmerek 2007: 32]. Finland was on the brink of bankruptcy and in 1994 unemployment was at the level of 22% [Castells, Himanen 2009: 5-6]. The process of overcoming the severe economic depression continued through 1997-2000. The annual rate of GDP growth in 1997 was 6.3%, in 1998 – 5.4%, and in the following two years, 4.4% and 5.6%, respectively.¹ That growth was driven by clusters of information technology, consisting mainly of companies responsible for the Finnish economic boom – Nokia and Linux [Castells, Himanen 2009: 30].

One aspect worth considering in the context of the Finnish economic boom is the role and impact of its education system on building the country's competitive advantage at that time. The shift from the economy based on paper industry, fishery and forestry to a knowledge-based economy required a reform of the education system into one capable of producing highly qualified personnel. It should be stressed that in addition to reforms, an important role is also played by society and institutions that establish "rules of the game" and limit human interactions [North 1997: 2]. Finland is a country with solid institutional foundations and a society characterised by innovation and enterprise, with a high level of trust towards the government's policy. It is these factors, combined with an effective education policy and high expenditures on research and development activity, that have led to the emergence of an innovative and highly developed economy in Finland.

The Finnish experience can be a valuable source of knowledge for Polish politicians responsible for education also because the state of Polish education resembles that found in many European countries a few decades ago [Gmerek 2007: 13]. By investigating and explaining the specific characteristics and educational changes in other countries, one should be able to draw conclusions about how the education system in Poland can be improved. Such analysis can help to take a more critical look at the Polish economy and realise to what extent Polish schools do not meet their basic functions.

¹ <https://databank.worldbank.org/data/indicator/NY.GDP.MKTP.KD.ZG/1ff4a498/Popular-Indicators> [accessed: 15.05.2019].

2. Aims and methodology of the study

The main objective of the study described in the article is to investigate the development path of the Finnish education system from the moment of political transformations in Europe after the collapse of the Soviet Union. For this reason, the article contains a description of the structure and key features of the education system in Finland as well as the manner in which it is shaped by public and private institutions. The analysis emphasizes the process of modernization of the country's economy from one based on agriculture and timber industry to a knowledge-based economy. In addition, the author considers to what extent it is possible to adapt certain characteristics of the Finnish model to the Polish conditions, indicating limitations that need to be overcome in the process of building a high quality education system.

The reference period considered in the study is the time from 1990 to 2018, i.e. from the moment when the Finnish economy started to undergo modernisation to the present. The analysis is based on statistical data released by the World Bank, OECD and Eurostat, as well as reports published by the United Nations, the World Economic Forum or the Heritage Foundation. The description of the Finnish education system is based on books written by such economists and sociologists as: T. Gmerek, M. Castells, P. Himanen, K. Tirri, T. Puolimatka, and P. Sahlberg.

3. Competitiveness of the Finnish economy

The following broad definition of international competitiveness is given by J.W. Bossak: "a country's competitiveness can be described as the result of institutional and macroeconomic factors, conditions of competition and the efficiency of the market, which provide the economic basis for a dynamic development of the whole country and individual companies in the changing business environment" [Bossak 2000: 20-21]. The capacity to compete in international markets depends not only on systemic conditions but also on the level of development of informal business structures and human capital. The ability to maintain competitive advantage is crucially affected by the system of values, social awareness concerning individual freedom, the role of education and personal development, as well as the spirit of enterprise in the population. It is these factors that play a key role in enabling Finland to maintain its high position in competitiveness rankings.

One of the indicators used to measure the competitiveness of world economies is the Global Competitiveness Index published by the World Economic Forum.

In the 2018 report, Finland was ranked 11th among 140 countries included in the analysis [Schwab (ed.) 2018: 223]. The Finnish economy received the highest scores in areas such as education and human capital skills, macroeconomic stability, institutions and the financial market development. Authors of the Global Competitiveness Report emphasise that Finland belongs to a group of the most open economies, defined in terms of openness to international trade, freedom of speech and free movement of people [Schwab (ed.) 2018: IX]. These factors, combined with solid institutions, highly qualified personnel and a stable financial market lead to a high economic growth.

Finland is also ranked high according to the Human Development Index, created by the United Nations Development Programme. HDI is used to measure social development in three basic dimensions: long and healthy life, access to education and a decent standard of living [United Nations Development Programme 2018: 1]. The HDI ranges from 0 to 1 – the higher the value, the higher the quality of life in a given country. In 2017, with a score of 0.920, Finland was ranked 15th, which placed it in the group of economies with the highest level of social development in the world [United Nations Development Programme 2018: 22]. It is worth noting that in 1990 the value of HDI for Finland was equal to 0.967 [United Nations Development Programme 1990: 111], which means that despite an unstable economic and political situation at the time, the country maintained high indicators of social development.

International competitiveness is also affected by the level of market regulation. Generally, the lower it is, the higher the country's competitive advantage over its global competitors [Misala 2008: 32]. This dimension is measured by the Index of Economic Freedom, published by the Heritage Foundation. The index consists of 12 factors, ranging from property rights to financial freedom. In 2019, Finland's economic freedom received the score of 74.9, which represents the 20th place in the global ranking and a relatively low level of restrictiveness of the legal system with the government exerting little influence on the economy. According to the report's authors, the biggest challenges facing the Finnish government include the need to maintain fiscal sustainability, reduce high labour costs, boost productivity in traditional industries. On the other hand, Finland's quality of the legal framework is among the world's highest, providing effective protection of property rights. The rule of law is well maintained, and a strong tradition of minimum tolerance for corruption continue.² One of the strengths of the Finnish economy is trade cooperation in the world. Foreign investments are not strongly affected by the government's policy, which guarantees the freedom of economic activity and an open access to goods and services available in the market. This situation can be traced back to Finland's policy of neutrality and

² <https://www.heritage.org/index/pdf/2019/countries/finland.pdf> [accessed: 6.05.2019].

the maintenance of free market economy principles during the years of dependence on the policy of Soviet Union in the international arena. The relations with USSR were governed by the principles established during the presidency of J.K. Paasikivi (1946-1956), when Finland was allowed to maintain contacts with the West, as evidenced by the country's membership in the UN and the Nordic Council (since 1955).

Data published in the index of economic freedom report indicate that the Finnish economy is based on strong institutional foundations, which are a necessary requirement for building international competitive advantage. Countries with stable institutions are more resistant to global economic crises and are able to adapt more quickly to changing conditions. Also, well-functioning informal institutions determine the innovativeness and development of the system of education, which is nowadays one of the key determinants of international competitiveness. The example of Finland shows that social awareness about the role of education, combined with a high level of trust for the government and systemic solutions adapted to the current conditions lead to high quality education, which in turn contributes to good economic results.

4. The structure of the Finnish education system

The Finnish system of innovation benefits from education and academic research. Technology-oriented universities supply highly educated and talented human capital. In 1980s Finland already could boast of 20 public high quality universities, managed by the Science and Technology Policy Council. The Finnish Innovation Fund (Finnish: SITRA), established in 1967 is an independent public foundation, under direct supervision of the Finnish Parliament, which provides financial support for projects that comply with the country's strategy of development. SITRA is Finland's biggest source of venture capital and a creative think tank. In 1983 the Finnish Funding Agency for Technology and Innovation (Finnish: TEKES) was founded to finance R&D activity [Castells, Himanen 2009: 68, 72]. Priority goals of the Agency include the diversification of manufacturing, export and employment growth. TEKES enjoys a great deal of autonomy in its financing decisions and is not subordinate to political structures. Consequently, the decision process is close to the problems of the R&D sector. The agency also finances projects that, despite not being compatible with its technological programmes, have a technological potential and involve cooperation between universities and companies [Castells, Himanen 2009: 70-71]. Another institution that provides funding for high-tech projects is the Academy of Finland, which is a governmental funding body, subordinate to the Ministry of Education. The funding used to support mainly universities and R&D centres.

All the above-mentioned funding agencies play a key role in the development of the Finnish innovation system, but it is the Science and Technology Policy Council that is the most important body in the field of R&D. The Council's goal is to maintain the highest quality of university education, support innovation culture and increase R&D funding. The functioning of the Council is considerably different from the way similar science councils in other countries operate. Above all, science and technology are treated jointly and the Council sessions are chaired by the Prime Minister. Its members include 5 other ministers and 10 high level expert members representing universities, industry, the Academy of Finland, TEKES and employees' associations. Thanks to the Council's structure, the vision and goals of education policy can reach all stakeholders, and the education system is not shaped only by politicians and scientists [Castells, Himanen 2009: 69].

The Finnish education system is regarded as one of the best and most efficient in the world. This is due to a number of factors. First of all, it should be emphasised that the education system is decentralised. Although the Parliament is the highest body that establishes education law and determines the direction of education policy, regional bodies, i.e. communes, retain a number of competences in this field. While central authorities supervise the functioning of schools, communes enjoy a great deal of latitude in day-to-day decision making. Schools can modify curricula, both as regards the choice of subjects and adjustments of the teaching content to local conditions and needs. Institutions of higher education in Finland are evaluated by the Finnish Higher Education Evaluation Council (FINHEEC), which cooperates with the Ministry of Education. Vocational and comprehensive schools are evaluated by the Finnish Education Evaluation Council, which is an independent government agency that evaluates quality and effectiveness of the education process and vocational training [Gmerek 2007: 62]. At the start of 1990s the Finnish education system saw a radical reform of curricula that underwent decentralization and deregulation. Previous curricula were characterised by a high degree of central planning and were governed by strictly laid out principles that specified methods, organization and the philosophy of teaching [Tirri, Puolimatka 2000: 158].

One feature of the Finnish education system is a high level of trust of the government towards teachers, who are free to choose methods, scope and pace of teaching to suit the needs of their students. The teaching profession is not only well paid but also enjoys a great deal of social prestige (most teachers are employed full-time as members of civil service). At the same time, requirements for future teachers are very high. Pedagogical universities provide the highest level of instruction and set very high entrance requirements. Only about 10% of candidates are accepted and they have to demonstrate a high degree of motivation, academic capability as well as skills in such fields as art, music and sport [Ustun,

Eryilmaz 2018: 102]. A Finnish teacher should have an all-round knowledge and be able to teach different learners [Tirri, Puolimatka 2000: 156]. Future teachers receive both theoretical and practical training and undergo tests designed to check their aptitude for the teaching profession. In addition to employing highly qualified staff, Finnish education system has a very unique approach to the very teaching process. It consists in developing responsibility through building trust between the student and the teacher and involves cooperation based on the principle of partnership. By eliminating rivalry between students, the Finnish system of education strives to equalize chances in students' access to education and emphasizes their equality in the process of knowledge acquisition. These aspects are supported by the lack of external exams until the end of secondary education. Student assessment in Finnish schools is kept to a minimum, which prevents the atmosphere of competition and enables students to become passionate about learning by pursuing subjects that really interest them [Sahlberg 2015: 7, 175]. Students choose personal learning paths during middle school. The effectiveness of such practice is confirmed by Finland's high rankings in PISA tests, which are part of a worldwide study aiming to evaluate the competence of students in different fields. In 2015 Finnish students scored above the global average in sciences, mathematics and reading.³

5. Cooperation between business and science

Another characteristic of the Finnish education system are the close ties between the business sector and scientific research, accompanied by a high level of R&D investments. In 1996, despite visible effects of the recent economic crisis, R&D spendings remained at the level of 2.5% of GDP and increased in the following years to reach 3.7% of GDP in 2010. According to the latest data for 2015, R&D expenditure accounted for 2.9% of GDP,⁴ which, despite a decline, makes Finland one of the world's leaders in this field. The country is also characterised by a high share of private companies in financing R&D activity. Higher levels of R&D investments can be attributed not only to favorable terms offered by TEKES or the Science and Technology Policy Council, but also to the example set by leading companies, such as Nokia. As a result, in 1995, the private sector spent 1.373 billion EUR on R&D, while in 2017, this figure rose to 4.02 billion EUR.⁵

³ <https://www.oecd.org/pisa/pisa-2015-finland.htm> [accessed: 11.05.2019].

⁴ <https://databank.worldbank.org/data/source/world-development-indicators> [accessed: 15.05.2019].

⁵ http://pxnet2.stat.fi/PXWeb/pxweb/en/StatFin/StatFin__ttt__tkke_yht/statfin_tkke_pxt_001.px/table/tableViewLayout1/ [accessed: 11.05.2019].

At present, R&D investments and the expansion of information society are important drivers of economic development, given that various spheres of human activity are based on modern technologies and require access to data and information processing and are clustered around global information networks. Since the start of its development, Finland has been one of the most technologically advanced countries. According to the ArCo Technology Index (Index of Technological Capabilities), proposed by D. Archibugi and A. Coco, in 2000 Finland was ranked 2nd, which means it had moved up four places compared to 1990. ArCo Technology Index takes into account three main dimensions: the creation of technology, the diffusion of technology (technical infrastructure) and the development of human skills. Its authors also believe the Scandinavian countries exhibit above-average results in the area of technical infrastructure and highly qualified workforce [Archibugi, Coco 2004: 632, 637, 640]. Since the beginning of the 1990s, Finland has also been a world leader in terms of Internet penetration. In 2017, 87.5% of the Finnish population used the Internet.⁶ High level of technological skills can also be explained by the education profile of the young population. In the age of intensive development of biotechnology, information technology and genetic engineering, the demand for graduates of technical studies is rising. The demand for skilled workforce in the Finnish labour market is satisfied by the growing number of students who complete such studies. In 2013, 22 per 1000 people aged 20-29 chose studies in the areas of science, technology, engineering and mathematics (STEM), which rose to 22.4 in 2017.⁷

Just as the United States and Germany, Finland is a country where there are strong ties between R&D units and the business sector [Polskie Towarzystwo Ekonomiczne w Bydgoszczy 2010: 8]. The Finnish model of knowledge transfer is an example showing that this kind of cooperation brings multiple benefits. Not only does R&D cooperation contribute to the company's economic success but it is also a tool for creating and implementing innovative solutions. One example of an R&D programme involving services of conducting research projects is *SIDlab international (Service, Innovation and Design)*, created by Laurea University of Applied Sciences in Helsinki. The programme combines the scientific potential of students and the academic staff to design solutions that meet the needs of specific companies. The *SIDlab international* programme was the basis for the Finnish model of knowledge transfer called IRPro2015, which promotes international cooperation in the field of services and research. The model assumes the exchange of analyses between Finnish universities and their foreign partners, which creates opportunities for long-term cooperation and potential cooperation of domestic and foreign enterprises [Polskie Towarzystwo

⁶ <https://databank.worldbank.org/data/source/world-development-indicators> [accessed: 15.05.2019].

⁷ <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do> [accessed: 14.05.2019].

Ekonomiczne w Bydgoszczy 2010: 8, 9]. The development of a similar model of knowledge transfer in the Polish conditions is a difficult process, requiring qualified staff and the implementation of mechanisms that favour cooperation between companies and scientific institutions. It is also necessary to minimize barriers to the implementation of innovation projects, resulting from inconsistent and complicated regulations. Bureaucracy continues to be one of the most common obstacles to cooperation between companies and universities. In the short-term, such cooperation can be encouraged by introducing financial incentives for people participating in such projects. In the long run, the emphasis should be placed on mutual benefits than can be derived from such cooperation, both for the business sector and for universities.

Another challenge faced by Poland on the way towards effective cooperation between universities and companies is the nature of institutional support offered by the government. Despite tax reliefs, cooperation between business and science is still limited to occasional projects, which are not organised on a regular basis. In highly developed countries, government aid is a systematic, organised form of activity consisting in raising social awareness, commercialisation of research results and increasing mutual knowledge transfer. In modern societies, administrative decisions are supposed to make use of the knowledge creation potential for the purpose of building up the competitiveness of local companies. This kind of cooperation leads to mutual benefits [Polskie Towarzystwo Ekonomiczne w Bydgoszczy 2010: 17]. Experiences of highly developed countries, including Finland, indicate the key role of active innovation policy that stimulates cooperation between business and science in the implementation of innovation projects. Finnish culture of innovation, with its close links with the education system, should indicate directions of change for developing countries.

6. Suggestions of solutions for Poland

The fact that Finland is among the most education-oriented countries can be attributed to a number of economic, social, historic and cultural factors. As pointed out by M. Castells and P. Himanen, it is not possible to build “a second Finland” outside the actual country. One can only identify certain structural elements of the system that contributed to the success of the Finnish model that can be considered universal [Castells, Himanen 2009: 6]. These include effective education policy, combined with high expenditures on education and R&D activities [Gmerek 2007: 13].

One problem still facing Poland is the low level of R&D spending (1% of GDP in 2015), which stands in stark contrast with Finland’s R&D investments

at the level of 2.9% of GDP for the same year.⁸ One of the causes of this situation in 2015 was the lack of incentives and tax reliefs for entrepreneurs. The situation has been slowly improving following the introduction of policies supporting innovation, as evidenced a slight increase in R&D expenditures to 1.03% of GDP in 2017.⁹ In 2016, the act amending certain acts with a view to support innovation¹⁰ (Journal of Laws 2015, item 1767) came into force, which provides for the possibility of deducting expenses incurred by a company on research and development. In this way, the act provides a financial incentive for all companies, regardless of the type of industry. Such measures not only motivate businesses to participate in R&D projects but help to initiate cooperation between economic units. The biggest obstacles to overcome in the process of promoting cooperation between business and science in Poland are institutional conditions and the low culture of innovation. In Finland, entrepreneurship indicators and the level of social trust are considerably higher than in Poland, just like the awareness of the need to include companies in research projects, which bring a number of beneficial solutions that generate innovation and make companies less dependent on imported technologies and products. This, however, requires highly qualified staff and an education system adjusted to meet the growing demand for innovation. At the same time, Polish education system faces challenges associated with the increasing demand for technical education. To meet this demand, Polish government should effectively encourage young people to study technical majors because the number of graduates in these areas is relatively low. In 2017, the share of technical studies graduates was 2.8 per 1000 inhabitants.¹¹

Another obstacle on the way to increase public R&D spending are insufficient financial resources. Because money is required for more important goals, the field of science and research is underfunded. The Finnish government solves this problem by increasing the level of taxation. Finland is ranked among the countries with the highest tax rates. In 2017, tax revenue accounted for 20.9% of the country's GDP¹². In return, Finns receive multiple benefits in the form of some of the best public schools in the world, high quality health care and social assistance. Finnish education system is entirely funded from the state budget, just like the health care system and social assistance (high pensions and doles).

⁸ <https://databank.worldbank.org/data/source/world-development-indicators> [accessed: 15.05.2019].

⁹ <https://bdm.stat.gov.pl/> [accessed: 15.05.2019].

¹⁰ Ustawa z dnia 25 września 2015 r. o zmianie niektórych ustaw w związku ze wspieraniem innowacyjności, Dz.U. 2015, poz. 1767.

¹¹ <https://bdm.stat.gov.pl/> [accessed: 15.05.2019].

¹² <https://databank.worldbank.org/data/source/world-development-indicators> [accessed: 15.05.2019].

One element of the Finnish education system that is completely different from the Polish approach is the question of school education. Finnish achievements in the area of education quality and effectiveness should provide an example for the Polish government of how to build a democratic, trust-based education system without grades. The absence of formal assessment of skills and knowledge eliminates rivalry among students and decreases the level of pressure. The atmosphere of cooperation is also fostered by the partnership relation between students and teachers and the awareness of equality among children. Polish system which constantly monitors schools, teachers and students' achievements is less effective and leads to the creation of school rankings and a division of students based on their learning abilities. As a result, the teaching profession is losing prestige in Poland, which, combined with a weak system of financial incentives and very limited possibilities of modifying curricula, discourages young people from taking up careers in education.

7. Summary

The above analysis of the specific character of Finnish education system highlights its high level of innovation and effectiveness. This can be attributed to the highly qualified teaching staff, a high level of R&D investments and cooperation between universities and the business sector. Finnish education system is shaped to meet the challenges faced by highly developed countries, associated with a new technological revolution, which requires changes in regulations concerning education to ensure economic growth.

Finnish experiences can be a valuable source of knowledge for less developed countries, such as Poland. Despite the popular image of Finland as a wealthy country, one should not forget that only a few decades ago, it was a poor country, which had very limited possibilities of meeting the needs of its citizens, where the majority of the population worked in agriculture. However, Finns demonstrated that a transition from an agricultural society to world technological leader can be achieved within half a century.

In the 1990s a number of changes were implemented in education system management in Finland. One of the most important changes, with implications for various aspects of the education system, was decentralization. Nowadays, schools enjoy a great deal of freedom when it comes to choosing textbooks, creating curricula and adapting them to local conditions. This approach enables a more effective management of the education system since a large part of obligations are taken on by communes and by schools themselves. In addition, decentralization has a positive impact on the improvement of education outcomes – teachers

are more responsible for their decisions and are highly motivated. In contrast, Polish education system is largely centralized, what practically means that the same curricula and solutions are implemented in all schools, regardless of the region's development level and location.

The development of school system in Finland is closely correlated with the needs of the dynamically developing economy (including innovation system and high-tech industry) and since the technological revolution it has been geared towards the development of "the welfare state". Consequently, education is perceived as a source of highly qualified human capital and as "social good" that serves national goals. In contrast, in Poland one can observe a tendency to view education as a system for producing labour force. Universities, offering a number of studies not matching the needs of the labour market, educate numerous graduates who either end up unemployed or have to change their qualifications.

One difference between Poland and Finland, as far as the functioning of the innovation system is concerned, is the level of R&D expenditure and cooperation between universities and the business sector. In this sphere, Finns achieve much better results, thanks to public funding, awareness-raising initiatives and the very principles of the welfare state. They pay much higher taxes than Poles and exhibit much more acceptance for the government's policy. After all, it would be unreasonable to contest the high level of taxes while enjoying the benefit of attending publicly funded schools offering the highest quality of education in the world [Castells, Himanen 2009: 6]. In Poland, R&D funding is much lower than in the Scandinavian countries, which results in less technologically advanced companies and less intensive cooperation with universities. This in turn makes the Polish economy less competitive in world markets.

Another factor explaining the Finnish success is the fact that innovation and dynamic economic growth are combined with the concept of welfare state and a high social acceptance of the government's policy. Finns view the state as an expression of Finnish identity [Castells, Himanen 2009: 31], which explains the high level of trust for the government and its decisions. For it should be stressed that the ultimate success cannot be achieved merely by having money to finance the development of technology and the education of future employees. What is also required is social awareness and social culture of creativity, innovation and enterprise.

In view of the above comparisons between Polish and Finnish education system, we should learn from Finland's experiences and success. The effectiveness of Finnish reforms in the field of education and latest technologies can be an indication for Poland showing directions for future economic strategies. Further research could explore other aspects of socio-economic life and other sectors of the economy where Finland achieves good economic results. It would also be useful to analyse experiences of other highly developed countries.

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Innowacyjność fińskiego systemu edukacji. Propozycje rozwiązań dla Polski

Streszczenie. *Nadrzędnym celem podjętych w artykule rozważań było zbadanie ścieżki rozwoju fińskiego systemu edukacji od momentu transformacji ustrojowych w Europie po upadku ZSRR. Przedstawiono strukturę i cechy charakterystyczne systemu oświaty w Finlandii, a także wskazano rolę instytucji publicznych i prywatnych w jego kształtowaniu. W opracowaniu podkreślony został proces modernizacji gospodarki od gospodarki opartej na rolnictwie i przemyśle do gospodarki opartej na wiedzy. Badaniu obecnego stanu fińskiej gospodarki towarzyszyły analizy pozycji Finlandii w rankingach konkurencyjności międzynarodowej. Pracy przyświecały także cele szczegółowe, takie jak: wskazanie na możliwość implementacji wybranych rozwiązań modelu fińskiego do obecnych warunków funkcjonujących w Polsce. Opisano ograniczenia, jakie państwo polskie powinno niwelować na drodze budowania wysokiej jakości systemu edukacji.*

Słowa kluczowe: *Finlandia, innowacyjność, działalność badawczo-rozwojowa, system edukacji*

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Modelling and Assessment of Risk in Pedagogical Projects

Abstract. *The article raises the problem of expert risks assessment of the implementation of pedagogical projects and providing a thorough explanation of the concepts related to project risks, risks classification and their assessment by experts. On the basis of a review of the literature, the authors assess the development of the theoretical basis of the studied problem. Results of an experimental study conducted by the authors have demonstrated that the expert survey method is a good way of identifying and evaluating risks in order to take appropriate measures of risk avoidance and minimization.*

Keywords: *project, pedagogical project, project activity, risks, risk modelling, expert assessment of project risks.*

1. Introduction

Implementation of education projects is motivated by the urgent need to modernise Ukrainian schools through educational innovations. As a result, there is a rapid trend in the field of educational management to develop project management, since project activities require command, organization, analysis, evaluation and control, forecasting and decision-making at each stage of the project for its continuous improvement.

The relevance of the problem of modelling and risk assessment in pedagogical projects is explained by the fact that while pedagogical design has been adopted on a large scale in general education institutions, risks involved in projects are

not always taken into account and their expert assessment is not as common as it is in economic management. Risk assessment is an economic category and procedure. In the field of pedagogy, schools have only recently started to focus on this problem, although in practice it seems to be merely a formal procedure as project leaders are not always familiar with the theory. However, as a result of media pressure and low stress tolerance associated with the instable world situation, teachers feel the need to be extra cautious in their activity.

2. Reasons appearances problems

In the actual practice of projects implementation teachers sometimes specify risks orally, informally. However, in the course of project implementation secondary school teachers pay attention to risks only when they face them. Then they have to take certain measures urgently, so to eliminate factors that could harm the project. If teachers learn to model risks and plan measures of minimizing or avoiding them, pedagogical projects will be implemented within a scheduled framework and project results will coincide with expected ones.

The goal of the article: to analyze the concepts related to risks in pedagogical projects, to study the process of potential risks modelling and to present the existing research on expert risk assessment.

The objectives:

1. To discuss the problem of risk modelling in the implementation of pedagogical projects on the basis of a review of the literature.
2. To carry out an expert assessment of risk probability by rating and mathematical modelling.

3. The research methods and methodology

To organize the experiment a number of methods were used: a review of the literature on risk assessment in economics and pedagogy. To differentiate risks according to selected parameters, methods of classification, ranking, expert evaluation, mathematical modelling were used. The algorithm of organization of expert assessment was developed using the method of rating of evaluation steps.

Despite the fact that the concept of risk is well-known, in our study we used our own definitions. *The risk of a pedagogical project*, from our point of view, is the probable coincidence of circumstances that will affect the further functioning of the project either by slowing it down owing to unforeseen situ-

ations. Probable project risk can be detected only by applying various methods of expert evaluations, for example by brainstorming.

Risk modelling refers to the process of describing possible situations by means of forecasting in order to find preventive solutions to avoid risks or reduce their influence. *Expert assessment of pedagogical project risks* can be understood as an assessment made by specialists in pedagogical design regarding the level of influence of personal or environmental risk factors at all stages of the project, for developing of measures which help to minimize their influence.

To conduct the experiment we selected the methodology of expert evaluation, namely, the method of selecting experts, the method of index ranking and expert evaluation technology. In this study we used methods of modelling of expert competencies and their training, which are partially presented in the following published works: Bodnar, Ratushko [2015]; Bodnar [2015; 2016].

4. Theoretical analysis of the concept of a “pedagogical project”, ”risk”, “risk assessment”

In the scientific literature a project is regarded as the result of transformation activities and as a form of organizing activities [Komar 2013: 102]. The importance of pedagogical projects for the training and learning environment of an educational institution is becoming more and more evident, since this technology involves elements of search, experiment and research, which are crucial for the formation of a creative personality of future students. V. Shkuro emphasizes that projects provide an opportunity to test ideas, perform search and concentrate the relevant resources [Shkuro 2012]. At present, project activity has considerable theoretical foundations: its methodology has been well developed, terms and concepts have been defined and classifications have been constructed [Tsymbralaru 2013; Marmaza 2013; Komar 2013]. However, in our research we are not interested in different kinds of pedagogical projects, but the general idea of a project as an activity involving risks.

Scientists are absolutely confident that pedagogical projects cannot be implemented with zero risk. Yarullin et al. explain this by the changing nature of the educational environment; the impossibility of using methods of direct influence; the adoption of educational innovations without testing and evaluation; personal criterion of information and other subjective factors [Yarullin, Prichinin, Shari-pova 2016].

In risk modelling a certain portion of subjectivity is always present. Therefore, theoreticians of pedagogical design could not avoid such an important problem as risk. In particular, the topic of project development with due regard for risks

was studied by V. Kryzhko (accounting for risks in management projects) [Kryzhko 2005]; O. Marmaza (risk appraisal in projects of educational institution development) [Marmaza 2013]; A. Tsymbalaru (risks in pedagogical designing of primary school educational process) [Tsymbalaru 2013].

It is widely known that the notion “risk” (originating from the Italian word *risicare* – “to manoeuvre between rocks”) has both positive and negative connotations. The positive aspect of risk is that an education manager may take the liberty of introducing innovation. Without risk there is no scientific exploration and bold achievements. At the same time, the prospect of risk makes a person alert to potential situations which can cause personal harm or create obstacles in conducting the planned tasks.

O. Balalaeva explains risk that risk is most commonly explained as a characteristic of a situation in which uncertainty of result is present due to some adverse consequences (uncertainty or impossibility of obtaining reliable information about successful result under the specified restrictions) [Balalaeva 2013].

The scientist determines the risk as a situation of uncertainty having ambivalent scenarios, both positive and negative; we refer risks to the future time as suggested events [Belyaeva 2014].

V. Kryzhko also considers risk to be the level of uncertainty involved in result forecasting, the possibility of danger, failures, and success in forecasting results. The author states that the ability to take risks and is not a human trait, but a special feature that shows itself in certain unpredictable conditions [Kryzhko 2005].

One cannot but agree with V. Abchuk’s and A.P. Panfilova’s statement that: «mastering the mystery of risk lies in the way of understanding its essence». The author points out that risk-taking can be rightful or wrongful. Rightful risk-taking is consistent with the objectives of the project, the goal is achieved by proven means, risk does not harm people and the level of risk is material and acceptable. The positive side of risk is confidence and anticipation of success as a result of applied efforts [Abchuk, Panfilova 2010].

Due to the importance of taking risk into account, in practice it is important to engage management mechanisms which include forecasting and identifying risks of inefficient management of development, working out methods of risk response; control of risk response in the case of inefficient management of development [Bolshakov 2008].

Risk modelling is applied during the implementation of international pedagogical projects; for example, in the eTwinning project the following risks may occur: incompatibility of the mental traits of students’ characters, their ideological and religious preferences; conflicts of interests caused by the idea of obtaining project results; different levels of readiness on the part of project participants which make it impossible to react adequately to the results of other participants and their presentation of the project; the risk of mutual misunderstanding be-

tween the participants. There is also one more important risk associated with the psychological stress experienced by a participant who feels incompetent and could quit the project or their results may not be taken into account [eTwinning Plus. Title from the screen].

There are different types of risks involved in project management depending on various factors:

– *relying on fortune vs checked and calculated*: active and passive, justified or unjustified, situational (the benefit in case of success is more than loss), or non-situational (risk for risk itself); *the probability of achieving the desired result*: blind or rational; voluntary or forced, professional and domestic; *the sphere*: financial, industrial, psychological, technological) [Kryzhko 2005];

– *the degree of influence on the project*: positive and negative [Abchuk, Panfilova 2010: 83];

– *a person's ability to cope with risk through their self-organization*: constructive and deconstructive; *the degree of complexity*: first degree risks (easily predictable) and the second degree risks (cause-and-effect relations which are not in line with one-dimensional rules); *the field*: technological, social, informational; *subject-object characteristics*: individual and collective risk; *conditions in which risk arises*: voluntary and involuntary; *substance*: risk resulting from action and passivity; *possible consequences*: material and moral risks, etc.; *personnel risks*: “flow”, “aging”, “conflict of generations”, etc., *contingent risk*: all risks related to changes in quantitative or qualitative characteristics of students), *procedural risks*: as educational and methodological) [Belyaeva 2014: 18].

The most fundamental description of the problems of management and risk assessment is provided in the field of economics, since it is connected to costs. One of the most interesting published works on risk management is the book [Project Risk. Management Guide 2018], which analyses the problem not only from the point of view of risk management structure, but can also be used as a reference for experts or as the basis for trainings and workshops.

In education, the theory of risk management, in particular, in project activities, has been insufficiently presented in practical applications. However, there are some interesting works by V. Kryzhko [2005], O. Marmaza [2013], N. Chernenko [2016], A.D. Tsymbralaru [2013], V. Shkuro [2012], I.F. Yarullin, A.E. Prichinin, D.Y. Sharipova [2016], N.I. Bilyk [2017], which are helpful for understanding the methodology of risk assessment in project activities.

V. Kryzhko emphasizes that the measure of risk is directly connected to the level of demands expressed by the project leader – the higher it is, the more actively persons take risks, irrespective of the fact that it is associated with responsibility. Repetition of events and original experience serves as the base of risk. The author presents research data, proving that only 5% of managers of educational institutions demonstrated aptitude for justified risk [Kryzhko 2005: 376].

N. Chernenko conducted a profound analysis of terms and concepts related to risks in the management of educational institutions. After reviewing a number of works on economic and educational management, the author studies risk as a form of activity under conditions of uncertainty, situation, actions characteristic, personal features, legal category, level of security in a given situation, and concludes that despite its objective-subjective nature, risk exists, irrespective whether or not it is identified and acknowledged [Chernenko 2016: 115-117].

The Polish scientific literature on management of education focuses on risk factors in the work of a director, related to correct time management. An interesting example is presented: in 1939 President F. Roosevelt had a special office for his own time management. This fact is important for every head of an educational institution, so to manage a school project, the director needs to spend at least 4 hours a week to assess all project risks and to help make adjustments at different stages of project implementation. Moreover, risk awareness always causes stress for the school manager. Therefore, the following measures for the perception of risk-induced stress are recommended: sensible evaluation of the situation, identification of the cause of the problem, planning possible ways of securing a risky situation, the development of a certain style of life, in particular certain skills which could help to accept different negative situations and look for ways of overcoming them [Elsner, Ekiert-Grabowska, Kozusznik 1995].

5. Justification of results of expert risk assessment in educational projects

For the purpose of risk modelling and determining the probability of their occurrence, a group of experts was selected from a group of school directors and their deputies attending an advanced training course at Ternopil Institute of Postgraduate Pedagogical Education (Ukraine). Experts were selected according to the following criteria: at least 10 years of school management experience, direct participation in projects, knowledge of the nature of project activity and project management competency. Based on the first two criteria 30 participants were selected out of a group of 25 directors and 27 deputy directors. However, after testing the participants' skills of project management and assessing their knowledge of project activities, only 7 were deemed sufficiently qualified to deserve the status of experts.

We used risk classification proposed by V.A. Abchuk and A.P. Panfilova [2010: 71], who considers such parameters as *uncertainty*, *randomness* and *counteraction*. Table 1 presents the results of modelling and classification of risks of pedagogical projects and summarizes the probability of risk occurrence in the process of project implementation.

Table 1. Determination of risk factors in pedagogical projects according to the criteria uncertainty, randomness and counteraction

No.	Risks resulting from uncertainty	Av. probability %	Risks resulting from randomness	Av. probability %	Risks resulting from counteraction	Av. probability %
1	2	3	4	5	6	7
Personal						
1.	Failure to attain the goal which was not clearly defined (too limited, or too broad, or rather abstract)	22.8	Accumulation of excessive amount of information about the object of study, which becomes information noise	7.1	Counteraction of project participants at a certain stages due to pressure of the leader	8.5
2.	Obtaining an unexpected result	10	Change of project leader	7.1	The participants and leaders do not fulfil their functions	24.2
3.	Non-adequate application of technology	30	Substitution of a large number of participants	2.8	Interference in the project leader management plan, fundamental changes	7.4
4.	Lack of resources	34.2	Participants wish to expand the expected result contrary to the plan	8.5	Position conflict in the groups of participants, rise of informal leaders who do not obey the project leader	8.5
5.	Non-professional acts of participants at different stages	24.2	Some participants are no longer interested in participating in the project	12.8	Some project participants leave the project because of the leader's personality	5.7
Environmental						
6.	Lack of makeup time	30	One-time financial over expenditures due to unpredictable development of the project	21.4	Delay in implementation of project stages due to the lack of coordination with education management authorities	10
7.	Change in project efficiency criteria due to changes of educational environment parameters	14.2	Lack of certified experts for project risk assessment	32.8	Manager of the educational institution imposes a ban on certain stages	4.2
8.	Reorientation of goals as a result of changes in legislation on education	18.5	Negative influence of environmental factors	4.2	Parents want to terminate the project	7.1
9.	Uncertainty of project stage time limits due to external factors: epidemics, school optimization, mental characteristics of the inhabitants of the region.	20	Access to Internet network is interrupted	34.2	The public expresses disagreement with the project content	5.7

Source: own resource.

The experimental data presented in columns 3, 5, 7 are generalized as a result of the aforesaid procedures and describe the integrated probability of a given risk in pedagogical projects based on the following procedure of the experiment.

The next stage of the experiment includes the task for experts: to determine the probability of risks in the implementation of future pedagogical projects resulting from *uncertainty, randomness and counteraction*. The experts determined the probability based on the experience of project implementation in their own schools, so they obtained different figures. The matrix of probability estimates is shown in Table 2.

Table 2. Expert estimates of the probability of risks in pedagogical projects resulting from uncertainty (%)

No. risk	Expert no. 1	Expert no. 2	Expert no. 3	Expert no. 4	Expert no. 5	Expert no. 6	Expert no. 7	Av.rating of factor
1.	20	10	40	30	20	30	10	22,8
2.	10	20	10	0	0	30	0	10
3.	40	40	30	40	30	10	20	30
4.	50	40	30	50	40	20	10	34,2
5.	40	50	20	10	10	30	10	24,2
6.	40	30	40	30	30	20	20	30
7.	10	10	0	20	10	20	30	14,2
8.	10	20	20	10	10	20	40	18,5
9.	30	10	10	20	30	30	10	20

Source: own resource.

Table 3. Expert estimates of the probability of risks in pedagogical projects resulting from criteria randomness (%)

No. risk	Expert no. 1	Expert no. 2	Expert no. 3	Expert no. 4	Expert no. 5	Expert no. 6	Expert no. 7	Av.rating of factor
1.	0	10	0	10	20	10	0	7,1
2.	10	10	10	10	0	10	0	7,1
3.	0	0	0	10	10	0	0	2,8
4.	10	10	0	10	0	20	10	8,5
5.	10	20	20	10	10	10	10	12,8
6.	30	40	20	20	10	10	20	21,4
7.	40	50	40	20	30	20	30	32,8
8.	0	10	10	0	0	10	0	4,2
9.	30	50	40	20	30	30	40	34,2

Source: own resource.

We calculated the integrated probability of the occurrence of a risk in pedagogical projects using the following formula:

$$R = k_1 F_{\max}^{(1)} + k_2 F_{\max}^{(2)} + k_3 F_{\max}^{(3)},$$

where R is the probability of a project risk, k_i its weight, i is the parameter, $i = 1, 2, 3$, $F_{\max}^{(i)}$ is the maximum probability of a given risk i and the weight of the parameters can be determined by experts or the project managers so that $k_1 + k_2 + k_3$.

For example the weighting coefficients of the parameters equal $k_1 = 0,45$; $k_2 = 0,3$; $k_3 = 0,25$. In Table 2 we find $F_{\max}^{(1)} = 34,2\%$, in Table 3 – $F_{\max}^{(2)} = 32,8\%$, in Table 4 – $F_{\max}^{(3)} = 24,2\%$.

So, according to formula (1) we have:

$$R = 0.45 \times 34.2\% + 0.3 \times 32.8 + 0.25 \times 24.2\% = 31.3\%.$$

So the coefficient of the probability of the occurrence of a risk in pedagogical projects in the studied region is 31.3%, which determines the development of preventive measures, adequate management decisions to minimize the impact of the eliminated risks on the course and results of pedagogical projects. Certainly, the specificity of each project will make it possible to more precisely define the nature of risks and develop adaptive solutions for solving problems in the process of implementing pedagogical projects.

Table 4. Expert estimates of the probability of risks in pedagogical projects resulting from criteria counteraction (%)

No. risks factors	Expert no. 1	Expert no. 2	Expert no. 3	Expert no. 4	Expert no. 5	Expert no. 6	Expert no. 7	Av.rating of factor
1.	20	10	10	0	10	10	0	8,5
2.	20	30	10	30	30	40	10	24,2
3.	10	0	0	10	10	0	20	7,4
4.	20	10	10	10	0	0	10	8,5
5.	0	0	10	10	0	10	10	5,7
6.	10	10	10	0	20	10	10	10
7.	0	0	0	10	10	0	10	4,2
8.	10	0	20	10	0	0	10	7,1
9.	0	10	10	0	0	10	10	5,7

Source: own resource.

6. Discussion view of the analytical component of the study

When estimating risk we used *the principle of practical certainty*, and the experts estimated probable risks based on their project experience and using methods of analyzing situations and developing alternative solutions for risk avoidance or minimization. Practice shows that risk modelling and assessing the probability of its occurrence depends not only on the experience of experts but also on their mentality. Teachers work facing a constant risk of rejection on the part of their students and are often inclined to exaggerate negative risks and only some of them can see positive aspects of risk.

Of course, the economic situation in Ukraine, the constant underfunding of education, give reinforce the awareness of the existence of risks and their potential for affecting both the process and results of a project. Therefore, the work of heads of education with a group of experts is very important. Participation in trainings, simulations of situations of risk avoidance or elimination, psychological adjustment, positive attitude, training of experts, and assistance in finding necessary literature, analysis of the process of completed projects are an incomplete list of methods for training experts. It should be taken into account that there are more such experts in the field of economy. In education, the institution of an expert is not sufficiently developed; their status has not been legally established. Therefore, as a rule, heads of educational institutions, teachers, scientific and methodical workers are encouraged to carry out expert assessment of risks. As groups of experts are mobile, their choice is situational, the objectivity of expert evaluation is provided through the approval of expert assessment technology and expert advice. Consultants can be scientific workers who, from the perspective of theory and methodology, can show alternative ways of solving problems in assessing risks of a pedagogical project. As can we see from the experimental study, the risk associated with the „Lack of resources” was estimated to be the most likely. The average probability of its occurrence was 32.2%. This is a big risk. The expectation of a high risk is dictated by experience, as in Ukraine all-Ukrainian and regional projects are often financed from local budgets. But it is not worth closing a project because of such a risk. Most pedagogical projects are designed to increase the initiative of teachers. It has long been proven that the initiative of teachers is a huge engine of pedagogical research. In addition, general education institutions in accordance with the new law on education have the opportunity to conduct independent financial activities, which includes the search for sponsorship through fundraising activities and marketing technologies. Perhaps experts exaggerated the probability of this risk but it can have a positive effect. After all, having additional funds for any project is always an advantage.

The second group of risks, associated with randomness, was estimated as ranging from 4.2% to 32.8%. “Lack of certified experts to assess the risks of the

project” was estimated to be the most likely risk. Unfortunately, in education, we still do not have developed technologies for training such experts, because they are trained on an ad hoc basis to evaluate particular projects.

As regards the third parameter, i.e. risk resulting from counteraction, the maximum probability was observed for “Failure of participants and managers to fulfill their functions”. In this case experts relied on the experience of regional and school projects. Non-performance of experts is understood (this was discovered by the method of focus-interview) as a failure to implement certain stages of the project within the scheduled time because project managers are teachers who perform the role of leaders outside the classroom and do not always have the time to perform their functions.

Such an experiment was quite successful because it helped the school directors and their deputies to focus not only on project results but also to manage intermediate results and the processes of individual stages.

The theory of risk management includes such methods as cancellation, prevention and control, insurance and absorption. These methods are applied after expert assessment of risks. Their choice will depend on the probability of risks, their weight and expertise.

Based on the conducted research the algorithm of expert evaluation of project risks was updated and consists of the following steps:

1. Select experts according to established criteria.
2. Discuss and adopt the expert evaluation procedure.
3. Discuss risk analysis in the implementation of other projects.
4. Study the structure and content of the project.
5. Assess the feasibility of all stages.
6. Discuss possible risks.
7. Draw up a list of possible risks by brainstorming.
8. Filter the list of risks.
9. Classify risks in terms of the criteria of uncertainty, randomness and counteraction.
10. Divide risks into personal and health-related.
11. Assess each risk
12. Identify and assess positive and negative risks.
13. Rank the probability of the occurrence of each risk.
14. Estimate the probability of risk occurrence and its influence on the course of the project using the formula.
15. Apply technology to reduce risks. Make predictive alternative solutions to minimize the impact of risks.
16. Reserve time for carrying out activities to minimize risks.
17. Allow for corrections from experts at different stages of the project implementation.

7. Conclusions

Analysis of scientific literature and practice in the management of educational institutions shows that school managers often do not analyze and assess risks that occur at all stages of the implementation of pedagogical projects. Risk aversion and lack of their expert evaluation can lead to the interruption or termination of the project, distortion of expected result, loss of authority on the part of project managers, participants' discontent and a decrease in the desire to participate in the project. When implementing a pedagogical project of risk recording, it will also help to avoid all moral, material losses of all participants. If risks cannot be analyzed and estimated, it can lead to adventurism and to the adoption of inadequate solutions. The use of expert assessment technology for risk assessment contributes to the objectivity of identifying risks and the possibility of developing measures to minimize them.

This study shows the importance of involving school managers and their deputies in assessing risks of a pedagogical project because project technologies are used not only in extracurricular activities but also in educational activities. When the school administration has a method of mathematical calculation of risks, they can select the most effective projects, help teachers and project managers' model and evaluate risks, use mathematical calculations to identify projects with the greatest risks and become committed to management decisions regarding the subsequent correction of projects.

This study does not exhaust all problems of managing and evaluating project risks. In future it is necessary to explore the problems of developing preventive measures for minimizing the impact of risks, adapting risk management technologies in managing general educational institutions.

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Modelowanie i ocean ryzyka w projektach pedagogicznych

Streszczenie. W artykule poruszono problem eksperckiej oceny ryzyka związanego z realizacją projektów pedagogicznych oraz dokładnego wyjaśnienia pojęć związanych z ryzykiem projektowym, klasyfikacją ryzyka i jego oceną przez ekspertów. Na podstawie przeglądu literatury autorzy oceniają rozwój podstaw teoretycznych badanego problemu. Wyniki badań eksperymentalnych przeprowadzonych przez autorów wykazały, że metoda ankiety eksperckiej jest dobrym sposobem na identyfikację i ocenę ryzyka w celu podjęcia odpowiednich środków unikania i minimalizacji ryzyka.

Słowa kluczowe: projekt, projekt pedagogiczny, działalność projektu, ryzyko, modelowanie ryzyka, ekspercka ocena ryzyka projektu

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Regional Film Funding as an Initiative Supporting the Sustainable Development of the Region

***Abstract.** The aim of the article is to show the role of Regional Film Funds in the sustainable development of the region. The author describes the main characteristics of the funds and shows how they benefit a given region and how they function. The analysis is based on data from published by Statistics Poland, units of local government and the Polish Film Institute. Sustainable development of the region is the result of activities of local government and public initiatives. Regional Film Funds have been created by units of local government to stimulate the development of the film market in Poland. The 12 existing funds have improved the financing system for film productions, and they have provided opportunities for regions to stimulate sustainable development by implementing intensified promotion strategies and socio-economic activities.*

***Keywords:** financing, Regional Film Funds, regional development, film market, sustainable development*

1. Introduction

Sustainability affects a wide range of areas and can therefore have a positive impact on a wide variety of entities. It is no different in the case of the film market, which, thanks to its links with public institutions and local government, influences regional development. The financing of film productions from Regional Film Funds created within particular provinces favours sustainable development of the region by creating new jobs, improving the quality of life of residents, stimulating tourism or promoting regions as innovative and interesting. Integrated

activities of local government, entrepreneurs and cultural institutions support the sustainable development of the entire region.

The aim of this article is to show to what extent Regional Film Funds influence the creation of the region's sustainable development policy. Another goal is to describe characteristics of Regional Film Funds and identify how they function and how they benefit a given region. The analysis refers to film funds existing in different territorial units of Poland. The analysis is based on data from published by Statistics Poland, units of local government and the Polish Film Institute.

2. Sustainable development of the region

Sustainable development is defined as social and economic development in which political, economic and social activities are integrated with the preservation of natural balance and durability of basic natural processes in order to guarantee the possibility of satisfying the basic needs of individual communities or their citizens, both present and future generations.¹ When defining the concept of sustainable development, it is important to highlight its main features and the common elements included in different approaches presented in the literature. Sustainable development is a type of social and economic development carried out by and for people, it is also a process integrating all human activities within economic, social and environmental activities. This concept also indicates the need to treat available resources responsibly in order to ensure their existence for future generations [Zachorowska, Stachera-Włodarczyk 2017: 8].

Sustainable development concerns three main economic, social and environmental spheres. It is essential that each of them should be treated equally to ensure that the management of territorial units or companies is truly sustainable. In fact, it is extremely rare for all three aspects to be equally taken into account or for effects of activities to be balanced. Although there is no clarity as far as understanding of the concept is concerned, responsible management, in at least one of its aspects, brings us closer to sustainability in the future. Sustainable development is therefore a kind of compromise between environmental, social and economic objectives.

It should be remembered that the implementation of sustainable development is a continuous process, which requires reliable knowledge and control over the course of individual stages. Indeed, stable, long-term and sustainable development is the essence of management [Nowodziński 2013: 94]. Sustainable development activities have an essentially long-term character. It is important

¹ Ustawa z dnia 27 kwietnia 2001 r. Prawo ochrony środowiska, Dz.U. Nr 62, poz. 627 [The Act of 27 April 2001 on Environmental Protection Law, Journal of Laws of 2001 No. 62, item 627].

to provide better living conditions not only for people living now, but also for future generations. Such development should be sustainable and should provide security for future generations in the form of social and economic order while preserving the heritage [Kasprzyk, Maciaszczyk 2013: 10].

In order to achieve sustainable development on a global scale, it is first necessary to act locally. Sustainable regional development has become an objective of the country's regional policy. Actions of public administration bodies aim at counteracting excessive inter-regional differentiation [Świąder 2015: 131].

Sustainable development of the region stresses the importance of using locally available resources. All activities undertaken to achieve this end should be permanent and follow an integrated approach to the issue of capital. At the same time, activities should be carried out in the mutual interest of all stakeholders on the basis of partnership relations. Available capital includes both financial goods and environmental, cultural and social capital. Creation and multiplication of capital understood in this way is the essence of sustainable activities within a given region [Janikowski 2010: 36-37].

Actions in the field of sustainable development are increasingly undertaken by local government, which makes it possible to stimulate economic, social and ecological development of the region. Areas within the three pillars distinguished in the System of Local Government Analysis include demography, education, social assistance, health care, housing, public safety, social participation, activity on the labor market, culture and recreation, finances, entrepreneurship, tourism, nature and landscape protection. The grouped indicators are to serve as guidelines for the system of monitoring local public services conducted at the local level [Stanny, Czarnecki 2011: 29-31].

Sustainable development of the region assumes that the main goal of proper and sustainable development is to create new jobs and support activities of small and medium-sized enterprises. The development of various sectors of the economy is expected to stimulate the market, which will foster the creation of complementary structures. Moreover, social and economic policy that takes into account environmental protection generates an attachment to the region on part of its inhabitants and improves their quality of life, thus ensuring the development of the region's internal potential [Mruk 2011: 213-214].

3. Financing in the Polish film industry

There are two institutions that play a pivotal role in the Polish film industry: the Polish Film Institute and the Ministry of Culture and National Heritage. The image of Polish cinematography is mainly created by the Polish Film Institute

(the Polish acronym is PISF), which was established in 2005 by virtue of the Cinematography Act. PISF is a state cultural institution responsible both for the development of cinematography and the promotion of Polish film in Poland and abroad. These activities are implemented through the co-financing of film production, international promotion of Polish films, organisation of festivals or events related to Polish cinematography, film education, digital reconstruction, as well as modernisation and digitisation of cinemas.²

The financing of film production by PISF is an indispensable element of the development of the film market. If a given project is approved for co-financing, then 50% of the film's budget will be financed from a grant, loan or guarantee offered by PISF. The remaining part must be obtained from producers or co-producers. Such funds are paid in at least two installments, with the last one paid only after the film production has been completed and the settlement of production costs has been approved. Then, after the cinema premiere, the revenue from the film is distributed equally between the cinema and distributors. If the project has been successful, the grant needs to be paid back to PISF within a maximum of 6 years. After 6 years, the right to profit from the film is transferred to the producer. Profits transferred to PISF constitute its revenue and are reused for operational programmes, including film production. However, if the revenue generated by a given film does not cover the costs of the producer, co-producers and distributors, then the subsidy is non-refundable. 80% of PISF funds are available for experts, the remaining part is allocated by the director of PISF.³

The activities of PISF are financed by the Ministry of Culture and National Heritage. PISF grants support four main operational programmes, which are film production, dissemination of film culture, foreign promotion and digitalization of cinemas. The budget of the Institute also includes 1.5% of the revenue of cinema operators, distributors, public television, cable and satellite television operators.⁴

A well-managed system of financing favours the development of the market, national heritage and film culture. Additional financial support for film creators comes from the largest TV stations or entrepreneurs. Thanks to contacts with the world of business, filmmakers can use funds obtained on the basis of product placement agreements. Without sponsors, producers or main partners, many Polish films would not be able to compete against the wave of foreign productions.

Financial resources provided by local government authorities and companies account for a significant part of production budgets. More and more often one

² Ustawa z dnia 30 czerwca 2005 r. o kinematografii, Dz.U. Nr 132, poz. 1111 [The Cinematography Act of 30 June 2005 r., Journal of Laws of 2005, No. 132, item 1111].

³ www.pisf.pl/instytut/infografika/w-jaki-sposob-pisf-wspolfinansuje-produkcjefilmowa [accessed: 12.10.2018].

⁴ www.pisf.pl/instytut/infografika/jak-dziala-pisf [accessed: 12.10.2018].

can see how important it is for individual towns or cities to have the film's plot set within their borders. Audiences are eager to visit places they got to know thanks to films because they identify themselves with their favourite characters and want to experience the atmosphere of the place as it was shown in a given film. Special trips that follow the footsteps of film characters as part of film tourism are increasingly becoming a way in which many Polish cities try to promote themselves. This type of activities have a positive impact on the image of the place and create conditions for the development of local entrepreneurs. Regional Film Funds have a significant value for the Polish film industry and territorial marketing.

It has become common practice nowadays for film producers to seek sponsorship from cities and regions where the film set is located. In return for showing the place in the most positive way, cities contribute significant financial resources. All forms of financing must be acknowledged in the film itself and in its promotional materials. Sponsorship agreements stipulate that logos of companies, institutions or cities should be clearly displayed [Majewska 2017: 146-150].

4. Regional Film Funds

Film funds are the source of financing many important film productions. In the era of modern technology, the financial support of PISF, the Ministry of Culture or other sponsors is no longer sufficient. For this reason, filmmakers and film market stakeholders look for additional opportunities by using mechanisms of subsidizing projects by local government. The idea of local government participating in the creation of film culture was initiated by PISF. During meetings with city and provincial authorities, mutual benefits of cooperation in film production were emphasized. The aim of such an initiative for producers was to create a new public source of co-financing for the production of fiction, documentary and animated films, and local authorities, by acting as patrons, were able to obtain some benefits for the regions in return. The benefits for local governments are significant, including the promotion of the region through the use of interesting local architectural and natural sites in films, the promotion of local artists, and the economic activation of the region through the use of local services by film crews.⁵

Because Regional Film Funds are an initiative of local authorities, the financing system requires that certain funds should be earmarked in the local budget. Afterwards, best projects selected by a panel of experienced experts receive

⁵ www.pisf.pl/rynek-filmowy/rynek-filmowy/regionalne-fundusze-filmowe/regionalne-fundusze-filmowe-w-polsce-2010 [accessed: 18.10.2018].

grants. In order to apply for a grant, the content of the film must be linked to the city or region. By creating a regional film fund and managing it appropriately, local authorities invest in the promotion of their region. Another requirement for receiving the subsidy is the necessity to spend a declared amount of money in the region by purchasing services. This gives additional impetus to the development of the local economy, and the film production itself, which must take place in the region, often leads to the creation of additional jobs. Local government units that support the film industry can enjoy the support of the main stakeholders of the film market in the preparation of legal and financial expert opinions or establishing the concept of promotion and management.

Regional Film Funds, established as early as the 1980s, are of particular importance in European countries. At present, they operate in most European countries, led by France with more than 40, followed by UK, Spain and Germany, with more than a dozen. 60% of film projects in Germany are financed from such sources. In Poland, the idea of Regional Film Funds was implemented after 2005, with the establishment of PISF. So far 12 funds have been established: in Łódź, Białystok, Kraków, Wrocław, Lublin, Poznań, Szczecin, Gdynia, Rzeszów, Katowice, Warsaw and Olsztyn. A short description of these funds is given in Table 1. According to the Polish legislation, a Regional Film Fund can be operated, among other options, as part of statutory activity directly by local government units, or as an agency subordinate to local authorities of the region

Table 1. Regional Film Funds

Name	Year of creation	The number of supported projects	Funds (PLN)
Łódź Film Fund	2007	69	8,000,000
Lower Silesia Film Fund	2008	65	12,000,000
Silesian Film Fund	2008	61	8,000,000
Poznan Film Fund	2008	40	7,000,000
Krakow Regional Film Fund	2009	51	11,000,000
Gdynia Film Fund	2009	43	6,000,000
Lublin Film Fund	2009	24	4,000,000
Western Pomeranian Film Fund	2009	80	5,000,000
Mazovia Film Fund	2010	43	10,000,000
Białystok Film Fund	2015	5	1,000,000
Podkarpackie Film Fund	2016	4	500,000
Warmia-Masuria Film Fund	2016	4	500,000

Source: own study based on PISF reports.

or as a non-governmental organisation. A fund can operate as a private company with the participation of local government.

The first Regional Film Fund was established in Łódź, which is known as the cradle of Polish cinematography. In the following years other funds were set up, thus improving development opportunities not only for cinematography, but also for the respective regions. Individual Regional Film Funds differ in the amount of financial support they can offer, although the average amount is one million PLN per year. Although grant application procedures share the main idea, specific rules and details may vary, and local authorities may establish different ways of evaluating projects or the structure of activities of institutions managing particular funds.

As a general rule, the amount of financing provided by Regional Film Funds for a given film cannot exceed 50%, and the remaining amount must be provided by the producer. The exception is the Regional Film Fund in Krakow, where the subsidy can reach up to 90% of the film's budget. In other funds, the average amount of financing ranges from 5% to 20%. The maximum amount per film is usually not fixed and filmmakers can also benefit from several regional funds at the same time. So far, the largest single grant, amounting to PLN 700,000, was awarded by the Lower Silesian Film Fund.

In 2017 it was ten years since the creation of the first film funds in Poland. During that time, almost 500 feature, documentary and animated productions received financial support. The notable examples of such films include „*Ida*”, directed by Paweł Pawlikowski, the first Polish movie to win the Academy Award for the best foreign language film and the European Film Award, and Agnieszka Holland's Oscar nominated *In Darkness*, Andrzej Wajda's last film *Afterimage* or productions related to important figures and events from Polish history, such as *Maria Skłodowska-Curie* or *Warsaw 44* directed by Jan Komasa.

5. Regional Film Funds and sustainable development of the region

The creation of Regional Film Funds is an indispensable element of support in the film market, but it is also a management tool in the region concerned. Benefits for regions are linked to the three main aspects of sustainable development. In the economic sphere, the funds are a source of financing for filmmakers, ensuring that some of the money is invested in the region. In addition, thanks to the acquisition of sponsors or the support of PISF, there is a possibility of the inflow of external financial resources. By attracting tourists, profits are generated from film tourism. Innovative promotion of the region increases its



Figure 1. Province where Regional Film Funds operate

Source: own study.

tourism potential, thus creating new jobs for entrepreneurs, not only in the tourist industry, but also complementary services. In this way, the quality of life of the residents is improved. By featuring historically important or unusual natural sites in a given region, films help to raise their importance, which may result in a greater emphasis on the protection of the environment and cultural heritage. It should also be noted that film productions themselves will in the future be an important source of knowledge for future generations.

Therefore, the main benefits from the creation and operation of Regional Film Funds include

- promotion of the region and its tourism potential,
- higher revenues from tourism due to better recognition of attractions featured in films, series, commercials,
- closer identification of the region's inhabitants with their place of origin thanks to the awareness of regional locations in popular series or films,
- activation of existing jobs and generation of new jobs necessary for film productions, including the accompanying base, providing daily services for other industries,
- inflow of external financial resources to the region,
- direct revenues for the region from the distribution of the film supported by a local financial mechanism and, in the event of its box office success, a multiplier effect – a return on multiple investments in the region,
- increasing the attractiveness of regions by raising awareness of their film, tourism and cultural potential, innovation.⁶

⁶ <http://www.fpca.org.pl/regionalne-fundusze-filmowe> [accessed: 20.10.2018].

In the case of most film productions supported by Regional Film Funds, from 100 up to 300% of the original funding returned to the region. Events accompanying film premieres or special screenings that take place in the region that provided the funding are also important. Because shooting locations, film content or its creators need to be linked with the region, the whole province is promoted, which additionally expands the possibilities of sustainable development. The 12 provinces where Regional Film Funds operate are shown in Figure 1.

Data about local government spending on culture in Poland collected by Statistics Poland (GUS) indicate that the largest financial contribution to the maintenance and development of culture at the regional level was made by three provinces: Mazowieckie (total expenditure in 2007-2015 amounted to 15.8% of all local government spending on culture in Poland), Śląskie (11.5%) and Dolnośląskie (10.5%). These provinces also stand out as regards the financing of film production thanks to existence of film funds. According to GUS, the average rate of growth of cinematography spending by local government units in the period 2007-2015 was equal to 34.7%.

6. Conclusions

Sustainable development of the region is the result of activities of local government and social initiatives. Regional Film Funds, which are initiatives of local governments, were created to stimulate the development of the film industry in Poland. The existence of 12 funds has improved the system of financing film productions, and for the regions they have become an opportunity for sustainable social and economic development.

Thanks to attractive film locations it is possible to promote the region efficiently and in an original way. Interesting and unique locations featured in films not only become more attractive for tourists but also increase the attractiveness of the entire region. Better tourist opportunities benefit local entrepreneurs, generate more revenue from tourism, including film tourism. Additional benefits from the point of view of sustainable development include social aspects, such as generation of jobs, increasing development opportunities for local communities or strengthening residents' attachment to the region.

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Regionalne Fundusze Filmowe jako inicjatywa wspierająca zrównoważony rozwój regionu

Streszczenie: *Celem artykułu jest wskazanie roli Regionalnych Funduszy Filmowych w zrównoważonym rozwoju regionu. W analizie pomogła charakterystyka funduszy oraz identyfikacja korzyści płynących z ich utworzenia i funkcjonowania w danym regionie. Analizowane i poddane syntezie dane pochodzą ze sprawozdań GUS, samorządów lokalnych i Polskiego Instytutu Sztuki Filmowej. Zrównoważony rozwój regionu jest efektem działań samorządów lokalnych oraz inicjatyw społeczeństwa. Aby pobudzić rozwój rynku filmowego w Polsce, powstały Regionalne Fundusze Filmowe, które są inicjatywami władz samorządowych. Istnienie 12 funduszy poprawiło system finansowania produkcji filmowych, a dla regionów stały się one przepustką dla zrównoważonego rozwoju dzięki wzmocnionym strategiom promocyjnym i działaniom społeczno-gospodarczym.*

Słowa kluczowe: *finansowanie, Regionalne Fundusze Filmowe, rozwój regionu, rynek filmowy, zrównoważony rozwój.*

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Indexing Companies Responsible Socially in the World

Abstract. *The aim of this article is to systematise existing research on the concept of Corporate Social Responsibility (CSR) and to indicate the way of indexing socially responsible companies on stock markets. The author presents the origin and key areas of CSR drawing on a review of the literature. This is used as the basis for the next part, which describes selected stock market indices that take into account the principles of CSR.*

Keywords: *ethics, corporate social responsibility, stock exchange, respect index*

1. Introduction

The implementation of the European Union Directive (2014/95/EU amending the Directive 2013/34/EU) that obliged certain large companies and capital companies to disclose non-financial information and information on diversity has led to more widespread implementation of ethics-related elements and/or concepts into enterprise management strategies in Poland and EU member states. According to the Ranking of Responsible Companies (2017 edition), economic entities that implement the ethical aspect into corporate management mostly operate in the services sector, and chemical, heavy and food industries [Ranking Odpowiedzialnych Firm 2017: 2-3]

The abundance of literature resources does not directly result in the actual inclusion of key areas and full implementation of the concept of Corporate Social

Responsibility (CSR) in the context of management. For this reason, the aim of this article is to discuss the concept of CSR, with special emphasis on selected ethical stock market indices across the world.

The article is based on the review of literature. After analysing a wide range of Polish and foreign literature, the author presents a review of selected stock market indices that take into account companies implementing key principles of CSR into their management systems. The list of indices presented in the article may encourage companies to step up their efforts aimed at implementing ethical values in the context of management as well as and to stimulate more informed implementation of the CSR concept in the economic sphere.

2. Origin of the concept of Corporate Social Responsibility

The emergence of the concept of CSR in the literature dates back to the second half of the 20th century. However, some authors argue that the idea of a socially responsible business is based on that of business ethics, which was developed much earlier.

According to A.F. Stoner, ethics is a study of how a decision-making individual impacts other people and human relations [Stoner, Freeman, Gilbert 2011: 119]. Ricky Griffin interprets the concept of ethics as an individual's personal view regarding classification of behaviour in terms of its correctness based on respected values [Griffin 2017: 135].

The origin of responsible management dates back to ancient times when philosophers talked about the distinction between “the art of making money” and “the art of management” [Stabryła (ed.) 2011: 48]. With the rise of a new social stratum in the Middle Ages (bourgeoisie), the concepts of work and getting rich started to be viewed in terms of morality. The period of Renaissance, including the teachings of John Calvin, led to a change in the paradigm of wealth increase (as an ignoble activity) and to the establishment of elementary principles of success – enterprise, resourcefulness, hard work, thrift, reliability and integrity [Kietliński, Reyes, Oleksyn 2005: 35].

Enterprise as a positive trait was also recognised by utilitarianists (18th century). Paraphrasing Adam Smith (who introduced the phrase “the invisible hand”), every initiative is considered to be good if it is useful.

Ethical problems in the context of economy were also addressed by all religious doctrines.¹

¹ More on that in: Kietliński, Reyes, Oleksyn [2005].

Although economic ethics is the foundation of CSR, these concepts should not be treated as synonymous. The ethical context of the economy can be described at three levels [Dylus 2015: 11]:

- micro level (individual aspect), i.e. acts, attitudes and virtues of individual participants of economic life;
- meso level (economic entities), i.e. responsibility of enterprises, companies, associations, etc.
- macro level (economic systems) involving the ethical context of the entire economic and social system.

While business ethics involves all of the above-mentioned levels, CSR is only limited to the level of economic entities (meso level).²

The separation of the concept of CSR from the area of economic ethics is understandable, given the increasing role of large enterprises in the world economy, which started to emerge during the industrial revolution. With the development of large economic entities (which often promoted anti-social, monopolistic practices and charged prices below the cost of production), the context of viewing the concept of market self-regulation changed [Landreth, Colander 2012: 95]. Lack of respect for ethics in business led to a renewed discussion on ethics in management. It resulted in the publication of *Silent spring* by Rachel Carter (1962), which addressed the use of seeds with added substances, such as mercury, which are harmful to the health of humans (and animals) [Brzeziński 2016: 62], and Hans Jonas's *Das Prinzip Verantwortung* (1979), which pointed out that the sphere of economy cannot fail to respect the broadly-understood morality and responsibility for the future [Jonas 1979].

The need for companies to make ethical decisions in the increasingly dynamical ecosystem was also addressed by the United Nations in 1967 at the 23rd General Assembly in New York during the discussion concerning the regulation of economic development, demography and development of cities for the protection of Earth's biosphere (*Problems of the Human Environment*). As a result, resolution no 2398 was adopted in 1968 obliging UN Secretary General U Thant to present a report on the present state of the degradation of Earth [Świąder 2018: 1061].

In 1983, the UN established the World Commission on Environment and Development as the first institution to address the issue of sustainable development of the world. According to the chairman of the commission, Prime Minister of Norway Gro Harlem Brundtland, sustainable development should combine the pursuit of a dignified life with the protection of the biosphere (with special emphasis on non-renewable natural resources). This way of perceiving the strategy for the development of world economies led to the formulation of the main idea of sustainable development that “meets the needs of the present without

² More on that in: Dylus [2012: 113-135].

compromising the ability of future generations to meet their own needs” [*Our Common Future* 1987].

Another UN contribution to the debate on ethics in the context of economy was the adoption of the so-called Rio Declaration (Rio de Janeiro, 1992), which laid down 27 principles designed to ensure responsible and sustainable development respecting the need for environmental protection. The contents of the Rio Declaration was extended in Agenda 21, a document containing the rules for implementing sustainable development programmes in individual countries, followed by the creation of a decalogue that promoted the respect for human rights, labour law and the natural environment by economic participants [Davos 1999], as well as the establishment of the Global Compact – a forum for entrepreneurs and stakeholders organised for promoting responsible business [Brzeziński 2016: 64-65].

While recognising the need for economic entities to practise responsible management, there is a dispute in the literature among both practitioners and theoreticians in the fields of economics, finances and management with regard to the concept of CSR (Table 1).

Table 1. Dispute around the concept of Corporate Social Responsibility

Arguments in favour of Corporate Social Responsibility	Arguments against Corporate Social Responsibility
Economic activity also involves negative effects for the environment, therefore organisations should be involved in solving them	Profit should be the main objective of economic activity
Enterprises co-create society in some sense	Engagement in social responsibility may give an enterprise too much power and impact
Enterprises are partners in the economy, like the government and society	There are no clear principles as to running social programmes
The economy has limited resources, which could be distributed in a different way if not for the operation of enterprises	There is a potential for a conflict of interests

Source: based on Griffin 2017: 150.

In line with the above arguments, economist Milton Friedman pointed out that the overarching objective of economic activity should be above all economic gain, which ensures financial liquidity to an organisation [Kowalczewski 2013: 90]. Opponents of the concept of CSR also stress the possibility of enterprises’ increased impact (through philanthropic activities) on society, consumers and employees, and the need for developing clear guidelines for social programmes or criteria for selecting supported activities so as to exclude unfair practices, [Stoner, Freeman, Gilbert 2011: 114-115].

In contrast, advocates of CSR emphasise that economic activity is not only about positive effects of expenditures (such as products and/or services, employees' remuneration) but also involve negative effects for the environment (mainly affecting the silent stakeholder, i.e. the natural environment). Therefore, organisations should be involved in overcoming problems arising out of economic activity [Griffin 2017: 150].

3. The concept of Corporate Social Responsibility

Corporate social responsibility represents an intention of incorporating into the strategy of an organisation social interests, environmental protection and the development of appropriate relations with widely understood stakeholders, [Samelak 2013: 17; Daszkiewicz 2009: 205-222]. According to its main principles, enterprises should not focus merely on achieving legal compliance of their activity, but rather, more importantly, should create stable, responsible relations with the environment in which they function by investing in human capital, supporting social initiatives and eliminating negative effects of running a business activity that impacts the ecosystem [Makuch 2011: 24]. The evolution of CSR definitions is presented in Table 2.

The above definitions of CSR emphasise a strong tie between an organisation and its environment. Hence the appeal for responsible cooperation to ensure that both economic and social interests of widely understood stakeholders are respected [Samelak 2012: 104].

The key areas of the concept discussed here include the natural environment (silent stakeholder), stakeholders, employees (internal stakeholders) and product (Table 3.)

The key areas of the concept of CSR include responsible management of natural resources, use of renewable energy sources, reduction of the emission of greenhouse gases, responsible water management, reduction of the amount of waste generated (in the production process) as well as co-creation and support of the local community, ensuring proper working conditions to internal stakeholders (including through education and improving employees' qualifications) and responsible production of goods and/or services [Nalepka, Ujwar-Gil 2010: 183].

As part of further implementation of the concept of CSR, enterprises may also influence cooperating parties to include the ethical context in their management strategies and, indirectly, contribute to responsible choices made by their consumers by using standard signs placed on products to indicate e.g. the ecological footprint of a given product [Wielgórka 2016: 983; Otolá, Nitkiewicz 2013: 518-520].

Table 2. Selected definitions of the concept of Corporate Social Responsibility

Author	Year	Proposed definition
J. McGuire	1963	„The idea of social responsibility assumes that a corporation has not only economic and legal obligations, but also certain commitments towards the society that go beyond these obligations.”
K. Davis	1973	„A company’s regard for and response to issues that exceed the narrow economic, technical and legal requirements from it (...) in order to achieve social benefits beside the traditional economic gains for which a company strives.”
K. Davis, R. Blomstrom	1975	„CSR is the management’s commitment to take actions designed to protect and improve both public well-being and the organisation’s interest.”
A. B. Carroll	1979	„Corporate social responsibility involves economic, legal and ethical expectations of society towards the organisation at a given time.”
W. C. Frederick	1978	„Corporate social responsiveness is a corporation’s ability to react to social pressure, literal act of response; or to adopt a responsive attitude generally.”
D. J. Wood	1991	„Corporate social responsibility is a business-adopted configuration of social responsibility principles, social responsiveness processes and policies, programmes and visible results connected with the company’s social relations.”
M. McIntosh, A. Mohan	1998	„Socially responsible business is about relationships between companies and society – both the local community that exists in a business’s environment and whose members interact with the business’s employees and the wider community covering the whole world – that affects businesses through their products, supply chain, network of distributors, adverts, etc.”
European Commission	2001	„Corporate social responsibility understood as a concept of a company’s voluntary regard for social and environmental aspects while engaging in commercial activities and in contacts with stakeholders.”
O. Bazzichi	2003	„Corporate social responsibility is a voluntary combining of social and economic matters in commercial activity and in relations with stakeholders who include employees, customers, suppliers, community in which a company operates and the government and media.”
World Business Council for Sustainable Development	2004	„CSR is business’s ongoing commitment to ethical behaviour and to activities for economic development while ensuring the improvement of the quality of life of employees and their families, local community and the whole society.”
ISO 26000	2008	„Social responsibility is understood as an organisation’s responsibility for the consequences of the decisions and actions taken with regard to the society and the environment. This responsibility is manifested through transparent and ethical behaviour that: <ul style="list-style-type: none"> – contributes to sustainable development, social health and well-being; – takes into account the expectations of stakeholders; – complies with the law in force and international standards of conduct; – is integrated throughout the organisation and practised in its relations.”

Source: Idasiak 2018: 282-283.

Table 3. Main areas of the concept of Corporate Social Responsibility

	Environment	Stakeholders	Product	Employees
Examples of the areas	greenhouse gas emission	co-creation of the local community	labelling of products	responsible principles of employment
	amount of waste generated during production		quality of products	workplace health and safety
	use of natural resources		safety of products	training and development of professional ethics
	use of renewable sources of energy			ethical hotlines to support whistleblowers

Source: based on Nalepka, Ujwar-Gil 2010: 183.

Despite the positive context of incorporating ethical concepts into management, managers should take into account (in the process of planning the implementation of a given strategy) the fact that a commitment to the concept of CSR requires that an organisation has the necessary *know-how* and is ready to incur additional costs [Zachorowska, Płonka 2007: 492].

4. Socially responsible index

One of the proponents of the idea of socially responsible investments was John Wesley, an English clergyman who defined social responsibility as a way of making investments that respect the goods of other people (excluding investments that harm fellow human beings, such as co-financing of irresponsible entities from the chemical sector, whose policy could threaten employees' health and safety or investments considered to be unethical (*dirty business*) – trade in arms or alcohol, production and sale of tobacco products), [Czerwonka 2013: 17-18].

The first attempts of socially responsible investing were made by Philip Lord Carret, who in 1928, in Boston (the USA) set up the first fund that excluded entities investing in the production of alcohol and tobacco – *Pioneer Fund*, [Remlein 2017: 117]. In Europe, the first fund that took into account ethics in business (*Nouvelle Strategie Fund*) was established in 1983 in Paris by a Catholic nun, Nicole Reille, inspiring the insurance company *Friends Provident* (operating in Great Britain) to set up *Stewardship Fund* in 1984 under the auspices of the Religious Society of Friends (Quakers). In 1965, in Sweden, the Church set up an investment fund *SRI Aktie-Ansvar Sverige*, and the Church in Finland was involved in efforts to establish two ethical funds in that country. The 1990s saw

the first responsible investing funds emerge in Germany as a result of the activity of local churches [Czerwonka 2011: 138].

The end of the 20th century was marked by a significant increase in the number of indices showing the ethical context of business activity, including a ranking of listed companies implementing the concept of CSR into their management strategies. The emergence of a number of funds that took into account such issues as protection of the ecosystem or opposition to nuclear energy could be motivated by numerous disasters that had a significant impact on the natural environment (Bhopal 1984, Chernobyl 1986 or the accident of the tanker *Exxon Valdez* 1989).

The beginning of the 21st century saw a breakthrough in social responsibility indexing. Numerous cases of fraud, e.g. those involving Enron,³ Xerox⁴ or Wordcom,⁵ resulted in numerous investors losing trust in large economic entities. The need to regain the trust of the capital market led to the emergence of the concept of corporate government that aimed to strengthen the internal control and increase the transparency of the information presented by companies. From then on, the analysis of enterprises' non-financial information was based on three most important factors in terms of the concept of SRI, known as ESG factors [Rogowski, Ulianiuk 2011: 100].

The ESG criteria refer to factors that are used to create ratings and non-financial assessments of economic entities, economies of countries and other organisations. They include [Szczepańska 2015: 181; Domańska-Szaruga 2011: 143-144]:

- *Environment* – assessment of the implementation of a pro-environmental strategy and policy, and of compliance with the adopted principles of responsibility and protection the biosphere;

- *Social responsibility* – assessment of an entity based on its relationships with its stakeholders (suppliers, customers, cooperating parties), working conditions, observance of employee rights and principles of workplace health and safety, quality policy and its general transparency;

- corporate *Governance* – assessment, as part of an analysis of the management structure, of observance of the shareholders' rights, transparency of information with regard to all shareholders, independence of decision-making and general managerial skills.

The aim of assessing economic entities in terms of ESG criteria is to create a comprehensive, independent statement regarding the ethical context of man-

³ More on that in: Zamość [2004: 9-11].

⁴ The management overstated the financial results by classifying under current sales future revenues from leasing copying machines, creating a false image of the company by overstating the income by as much as 2 billion dollars.

⁵ More on that in: <http://www.bbc.co.uk/polish/020627112552.shtml> [accessed: 22.08.2019].

agement of individual companies for investors for whom an economic entity's financial liquidity (and thereby credit risk they incur) is not a sufficient factor determining investment [Domańska-Szaruga 2011: 143-144].

The first index to take into account the key principles of CSR, i.e. SI (*Sustainability Index – DJ*) was created by Dow Jones, STOXX Limited and SAM Group (*Sustainable Asset Management*) in 1999 (USA).⁶ A year later, the Calvert fund also started to publish a CSR index (*Calvert Social Index – CSI*),⁷ whereas in 2001, in the English market, London Stock Exchange and Financial Times launched the FTSE4Good index⁸ [Kopeć 2014: 111-112].

According to the Warsaw Stock Exchange, “the emergence of various funds investing in portfolios of socially responsible indices results in an increased interest in the participating companies.”⁹ Moreover, there is a growing interest in implementing the concept of CSR into the corporate management strategy in order to be included in ethical, transparent (for investors) indices.

Currently, apart from the above-mentioned indices that classify socially responsible entities, there are also other indices that are gaining in importance:

– *FTSE Johannesburg Stock Exchange Socially Responsible Index (JSE SRI)*, which was created by the Johannesburg Stock Exchange in cooperation with EIRIS, FTSE4GOOD – FTSE International Ltd. and KPMG in 2004. The JSE SRI index is the first socially responsible index launched in emerging markets – in the region of South Africa. It is designed to provide a benchmark¹⁰ for investors, and to propagate responsible management among entities operating in South

⁶ Since then, *Sustainability Index* has grown to include a dozen or so different indices covering individual regions and industries across the world. Because of the adoption of a positive selection, DJSI index aims to identify companies that are best in their class in terms of three dimensions: economic, environmental and social responsibility, more on that in: <http://odpowiedzialnybiznes.pl/hasla-encyklopedii/dow-jones-sustainability-index/> [accessed: 22.08.2019].

⁷ The CSI index measures performance of companies in the US market that implement the principles of the CSR concept. Companies are selected for the index based on the criteria of products (type of manufactured products), the environment (environmental protection and reduction of pollution), workplace (compliance with workplace health and safety principles and standards) and transparency and fairness, more on that in <https://www.jse.co.za/services/market-data/indices/socially-responsible-investment-index> [accessed: 22.08.2019].

⁸ Currently, FTSE4Good extended the indexing to cover the whole world – FTSE4Good series. The inclusion of companies in the indices is based on a negative selection (companies that produce arms or drugs, or do not respect the principles of social equality are eliminated) and a positive selection (companies that promote the protection of the biosphere, develop responsible relationships with their environment, respect human rights, fight corruption are included). The FTSE4Good index series is the only one to be awarded a special status recognised by UNICEF, more on that in: <https://www.ftserussell.com/products/indices/ftse4good> [accessed: 23.08.2019].

⁹ http://respectindex.pl/indeksy_csr_na_swiecie [accessed: 23.08.2019].

¹⁰ Refers to any published indicator, index of figure, made publicly available or published, determined periodically or regularly, using a formula or based on the value(s) of one or more factors, selected criteria, other values or data from the research conducted.

Africa. The basic criteria for the inclusion of companies in the JSE SRI index are: compliance with the principles of responsible business in running a business activity and respect for human rights.¹¹

– *Sao Paulo Stock Exchange Corporate Sustainability Index (ISE)*, created by *BOVESPA, Sao Paulo Stock Exchange* in cooperation with *Center for Sustainability Studies of Fundação Getulio Vargas (CES-FGV)* and *IFC (International Finance Corporation)* in 2005 in the Brazilian market, based on a positive selection in accordance with the ESG criteria.¹²

– *KLD Global Sustainability Index Series (GSI)*, launched by *KLD Research & Analytics* in 2007, covering the regions of North America, Europe, Asia and Pacific. The methodology of the index is based on a positive selection (ESG criteria).¹³

– *RESPECT Index – RI* (2009), the first index of socially responsible companies in Central and Eastern Europe, the project created by the Warsaw Stock Exchange (Polish: GPW), Kulczyk Investments, Deloitte and Forbes magazine and designed to identify companies that implement the CSR concept into their management strategy and to highlight their investment attractiveness in terms of the quality of published reports, the level of investor relationships or information governance. The criteria for analysing entities aspiring for *RI* take into account the parameter of liquidity, which makes this index a real recommendation to investors.

The process of classifying *RI* companies including entities listed on the Warsaw Stock Exchange takes place in three stages:¹⁴

– Stage I – conducted independently, without participation of the representatives of the companies concerned, exclusively based on publicly available information. Its aim is to indicate companies with the highest liquidity from among entities included in WIG20, mWIG40, sWIG80.

– Stage II – involves analysis of companies' practices in the areas of corporate governance and information governance as well as relationships with investors conducted by the Warsaw Stock Exchange in cooperation with the Polish Association of Stock Exchange Issuers (*Stowarzyszenie Emitentów Giełdowych*) based on generally available information published by companies (reports, websites, press releases).

– Stage III – involves a direct contact at the seat of the company in question (which requires a consent from the management to participate in the project) in order to conduct a survey examining the maturity of companies in terms of social responsibility (the survey is verified by the Project's Partner – company Deloitte).

¹¹ More on that in: http://www.jse.co.za/About-Us/SRI/Introduction_to_SRI_Index.aspx [accessed: 23.08.2019].

¹² More on that in: <https://sseinitiative.org/fact-sheet/bovespa/> [accessed: 23.08.2019].

¹³ More on that in: <http://www.kld.com/indexes/gsindex/index.html> [accessed: 23.08.2019].

¹⁴ More on that in: http://respectindex.pl/kryteria_ocen_y_spolek [accessed: 23.08.2019].

The results of the final (third) stage constitute the basis for creating the final list of companies included in the RI index, which is published annually. The current list of *RI* companies, published on 14 December 2017, includes 28 companies (the biggest number in history), including three newcomers.¹⁵

Results of *RI* show that companies included in this index are characterised by a higher return rate (compared to an average market return measured by the WIG index). According to data from the Warsaw Stock Exchange and Deloitte, since its conception (2009) *RI* increased its value by 85%. Over the same period, WIG index increased by 59%, whereas WIG20 index by 3.5%.¹⁶

Although the creation of socially responsible indices has a positive effect of increased transparency of the capital market and the promotion of the ethical context of management, it can be argued that socially responsible indexing is not perfect, as it “is only a tool that can confirm the existence or lack of concrete mechanisms, but is not sufficiently detailed to assess business correctness of the adopted strategies” [Dymowski 2011: 22].

5. Conclusion

In the 21st century, fewer and fewer investment decisions are based solely on financial parameters (such as profitability). More and more often, the role of ethical factors is recognised, including responsibility for undertaken economic activity, which can be independently analysed in accordance with ESG criteria. The development of ethics in business, and consequently socially responsible investments was stimulated by numerous financial and environmental abuses by large economic entities.

Among numerous socially responsible indices, particularly noteworthy are: *Sustainability Index – DJSI* (the first index that takes into account the key principles of CSR), *FTSE Johannesburg Stock Exchange Socially Responsible Index* (JSE SRI), the first socially responsible index launched in emerging markets (region of South Africa), *KLD Global Sustainability Index Series* (GSI) covering the region of North America, Europe, Asia and Pacific, and *RESPECT Index – RI* (Central Eastern Europe-first index of socially responsible companies), the original project of the Warsaw Stock Exchange (GPW).

The emergence of indices of companies that successfully implement key assumptions of CSR into their management strategies leads to increased transpar-

¹⁵ More on that in: http://respectindex.pl/aktualnosci?ph_main_content_start=show&ph_main_content_cmn_id=1133 [accessed: 23.08.2019].

¹⁶ <https://www2.deloitte.com/pl/pl/pages/press-releases/articles/gielda-papierow-wartosciowych-oglasza-nowy-sklad-respect-index.html> [accessed: 23.08.2019].

ency of presented data (including non-financial ones) and boosts investors' trust. Therefore, it is important to highlight the relationship between the development of CSR and the emergence of indices and dedicated investment funds, as well as relationships between CSR indices, which motivate companies to include key ESG principles in the process of management.

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Indeksowanie spółek odpowiedzialnych społecznie na świecie

Streszczenie. *Celem niniejszego opracowania jest usystematyzowanie dotychczasowego dorobku naukowego z zakresu koncepcji społecznej odpowiedzialności biznesu (Corporate Social Responsibility – CSR) oraz wskazanie na sposób indeksowania spółek odpowiedzialnych społecznie na rynku obrotu papierami wartościowymi na świecie. W wyniku przeprowadzonych badań przy wykorzystaniu techniki desk research przybliżono genezę i kluczowe obszary koncepcji CSR. Stało się to podstawą do kolejnej części pracy, w której wskazano na wybrane indeksy giełdowe uwzględniające główne postulaty koncepcji CSR.*

Słowa kluczowe: *etyka, społeczna odpowiedzialność biznesu, giełda, respect indexs*

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The Cultural Sector in the Context of the City Development Strategy: a Case Study

***Abstract.** The aim of this article is to show the impact of the cultural sector on the development strategies of local government units. The theoretical part, based on the review of the literature, characterises the culture sector in the context of the city's activities. The practical part involves an analysis of secondary sources, such as data published by Statistics Poland and documents concerning the development strategy of the city of Katowice. The study focuses on the city's activities in the cultural sector.*

***Keywords:** culture, city, development, city development strategy, cultural sector*

1. Introduction

Culture is currently one of the basic drivers of economic and intellectual development. This is because it contributes to the improvement of a region's attractiveness as perceived by local community, tourists and investors. In recent years, the implementation of a cultural policy has been crucial. Undertakings related to culture and art are becoming a catalyst for urban improvement [Namyślak 2013: 55].

Challenges faced by local government call for a shift in the perception of culture – from an area that used to be treated as peripheral, as a burden on the budget, to a dimension viewed as an element of strategic development and that serves the interests of the local community. This is because whether existing

chances are exploited depends on creativity, cooperation skills and ability to learn – which are culturally conditioned [Ilczuk, Misiąg 2003: 7]. The fact of including cultural aspects in urban development strategies affects the awareness of city inhabitants, prevents social pathologies, has an impact on economic development and strengthens ties within the local community. Therefore, cultural heritage should be respected, protected and promoted.

2. Interpretation and elements of the cultural sector

Culture is defined as a set of elements such as language, beliefs, ideas, attitudes, everything that is regarded as sacred, rituals and other components. Its development depends on the process of learning or passing down from generation to generation [Janoś-Kresło 2008: 207].

The literature provides many ways of classifying the cultural sector. One of more popular classifications is by activity type. The result of such a division is industry and undertaking. This division is shown in Figure 1.

Cultural activity refers to the organisation of concerts, exhibitions and performative arts. Regardless of the type of content, the most important is its unique character. Therefore, a cultural event, whether watched or heard, is not reproduced repeatedly. Its content can only be experienced live at a given place or time [Namyślak 2015: 36].

In recent years, the term “cultural industry” has been widely used. It was first used in the Frankfurt School of philosophy associated with M. Horkheimer and T. Dorn. Unfortunately, its connotation was negative. At that time, it was used to refer to mass produced culture by means of industrial techniques. Now, the term no longer invokes such associations. According to UNESCO, cultural industry refers to activities in the area of production, storage, reproduction and distribution of goods and services on a large scale. It encompasses books, film and phonographic industries as well as media [*Cultural Industries* 1982: 23].

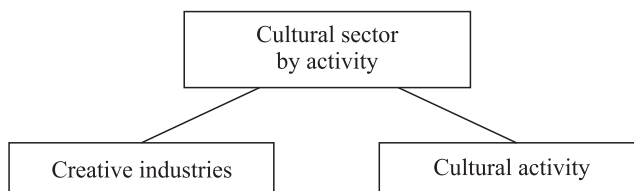


Figure 1. Cultural sector – institutional division

Source: Namyślak 2015: 36.

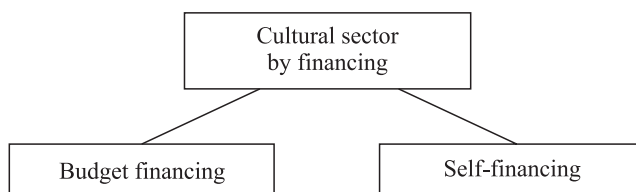


Figure 2. Cultural sector by financing

Source: Krzysztofek 2002: 50.

According to K. Krzysztofek, cultural industry is the activity of goods-producing entities that involves profit-seeking and the requirement of creativity [Krzysztofek 2002: 59-60]. This indicates that cultural goods and services are considered in relation to market activities.

The cultural sector can also be classified in terms of its financing source. Thus, two categories can be distinguished: budget financing and self-financing. This division is shown in Figure 2.

Culture financed from the municipal budget depends on the volume of appropriations for the development of culture. Self-financing of culture, in turn, is focused on the production and mass sales of print or recordings [Krzysztofek 2002: 50].

3. Legal and financial aspects of the cultural sector

A lot of local government units decide to take into account the cultural sector in their strategies. This is done by virtue of the act on organising and engaging in cultural activity (the Act of 25 October 1991 on organising and engaging in cultural activity¹). According to the act, engaging in cultural activity is a mandatory task for local government units. What is more, such entities organise cultural activity via local government cultural institutions.

Both the state and units of local government are tasked with overseeing cultural activities. Such patronage involves the following kinds of activities:

- promoting and supporting cultural creativity,
- initiating cultural activities,
- protecting cultural heritage.

Tasks in the area of culture were taken over by local government units in a few stages. Changes took place in the 1990s, when communes (Polish: *gmina*)

¹ Ustawa z dnia 25 października 1991 r. o organizowaniu i prowadzeniu działalności kulturalnej, Dz.U. 2001, nr 13, poz. 123 ze zm.

were granted competencies in the area of the cultural sector. As a result, they became responsible for several thousand local cultural institutions. Before 2000, similar competencies in this area were given to counties (Polish: *powiat*) and provinces (Polish: *województwo*). As a result, county and province authorities were put in charge of the majority of the previously state-run cultural institutions. Counties and towns with county rights took over from province governors (Polish: *wojewoda*) the control over cultural institutions listed in the register previously maintained by province governors. Provincial authorities, in turn, took over institutions from ministries and central office heads – they became the property of particular provinces (the Act of 24 July 1998 changing certain acts defining competencies of state administration bodies – in connection with the reform of the state's political system²). The administrative reform in the area of culture resulted in the allocation of tasks and the establishment of institutions managed by local authorities at different levels. However, certain activities, due to their nation-wide character, were left in the care of ministries and heads of central offices. The act also provided for the possibility of a cultural institution being managed by a natural or legal person.

With regard to the legal aspect of the cultural sector, it is worth noting that activities in the area of culture are also regulated by industry-specific acts. They provide guidelines concerning activities of archives, museums and libraries (the Act of 27 June 1997 on libraries³).

A local government unit has to fulfil basic tasks in the area of culture, such as:

- cultural education,
- creating, gathering and sharing cultural goods,
- protecting cultural heritage,
- making inhabitants interested in culture and art,
- creating conditions for artistic development,
- meeting cultural needs [Klasik 2010: 50].

The city's activities in the cultural sector consists in creating new resources, improving the management of goods in its possession, and revitalising the existing resources. A city owns tangible and intangible cultural resources. The tangible cultural capital is mainly represented by cultural institutions. Such institutions generate new jobs and increase the city's revenue by extending their cultural offering. Intangible resources include the human capital and improvements that contribute to the city's attractiveness.

Financing is an equally important organisational aspect of the cultural sector. The most significant changes in Poland in this respect took place in the period

² Ustawa z dnia 24 lipca 1998 r. o zmianie niektórych ustaw określających kompetencje organów administracji publicznej – w związku z reformą ustrojową państwa, Dz.U. 1998, nr 106, poz. 668, zmiany: Dz.U. 1998, nr 162, poz. 1115 i 1116.

³ Ustawa z dnia 27 czerwca 1997 r. o bibliotekach, Dz.U. 1997, nr 85, poz. 539 ze zm.

of transformation. Due to the financial crisis, public spending on cultural, like expenditure on other social services, was limited to the minimum. This policy was informed by postulates included in the 1989 document of the World Bank. These postulates addressed the use of the country's budgetary appropriations. The report pointed out a strong correlation between the consumption of cultural goods and services and the population's incomes. As consumers' incomes grow, their consumption in the area of culture also increases. Thus, subsidies to the sector of culture most benefited people with highest incomes. In this way, concluded the report's authors, subsidies increased the income gap – which was

Table 1. State budget expenditure: section 24 – Culture and protection of national heritage

State budget expenditure	2014	2015	2016
921 – Culture and protection of national heritage	1,473,449	1,690,012	2,323,258
92101 – Cinematic institutions	10,276	12,049	15,454
92102 – Polish Film Institute	10,806	13,974	12,269
92105 – Remaining tasks in the area of culture	37,614	57,550	30,648
92106 – Theatres	167,776	190,954	182,616
92108 – Philharmonic halls, orchestras, choirs and bands	62,794	95,904	170,766
92109 – Cultural centres, community centres and clubs	6,045	5,845	4,877
92110 – Galleries and art exhibition bureaus	14,829	15,657	14,219
92113 – Culture and art centres	226,321	227,391	210,082
92114 – Other cultural institutions	125,076	121,642	122,661
92116 – Libraries	88,469	98,984	91,421
92117 – Archives	142,533	152,182	148,758
92118 – Museums	416,685	502,880	1,132,984
92119 – Centres for protection and documentation of monuments	31,293	44,152	45,059
92120 – Protection and care of monuments	92,932	102,356	97,091
92122 – The Council for the Protection of Memory of Combat and Martyrdom	18,843	22,121	6,776
92126 – The Centre for Polish-Russian Dialogue and Understanding	5,500	5,536	5,571
92127 – Activity connected with places of national remembrance	0	0	7,475
92195 – Other activities	15,658	20,837	24,531

Source: Wykonanie budżetu państwa w 2015 r. w części 24 kultura i ochrona dziedzictwa narodowego oraz wykonanie planu finansowego funduszu promocji kultury i funduszu promocji twórczości, <https://www.gov.pl/web/kultura/budzet-ministerstwa> [accessed: 15.10.2018].

an argument for abandoning them [Janoś-Kreso 2008: 215]. The fundamental problem of the cultural sector is connected with the scope of financing and the competencies of public administration bodies. Public money spent on the cultural sector is appropriated for those activities where the use of the market mechanism is difficult or not recommended in view of the objectives of the cultural policy. Financial support for the cultural sector can be provided directly or indirectly. Direct financing is enabled by the competencies of an administration body and takes place at various administrative levels. Cultural institutions and individual artists can also be financed indirectly through cultural projects and programmes. It is worth mentioning that the state also supports cultural activities in the area of cultural industry [Janoś-Kresło 2008: 214].

Over the years subsidies and state budget expenditure on the cultural sector have been on the rise, as can be seen in Table 1. In accordance with the 2014 budget law, the total state budget expenditure in section 24 – Culture and protection of national heritage, amounted to PLN 2.99 billion. The highest expenditure of PLN 1.5 billion was recorded in section 921. The most expensive items were activities for the benefit of such institutions as museums – over PLN 416 million, culture and art centres – over PLN 226 million, theatres – over PLN 167 million, and archives – PLN 142.5 million.

In 2015, expenditure in section 24 amounted to PLN 2.9 billion. Again, the highest expenditure was recorded in section 921. Expenditure on museums was PLN 502.8 million, culture and art centres – PLN 227.4 million, theatres – PLN 190.9 million, archives – PLN 15.2 million, and philharmonic halls – PLN 62.7 million. The last year of the reference period shows a further increase in expenditure on culture and protection of heritage, amounting to PLN 232.3 million. The elements of the cultural sector that generated the highest costs were again such institutions as museums – PLN 1.13 billion, culture and art centres – PLN 210 million, and theatres – PLN 182.6 million.

4. Development strategy for Katowice and the cultural sector

The development strategy for the city of Katowice for the 2015-2030 period is in line with the objectives of the National Urban Policy for 2030, according to which the city should strive to be dynamic and efficient. It must also embrace activities aimed at sustainable development while being a competitive and strong entity. The document is also consistent with the Strategy for the Development of the Silesian Province entitled “Silesia 2020+” and the Integrated Territorial Investments Strategy of the Central Silesian Province for 2014-2020.

The development strategy of the city of Katowice is based on the following four pillars:

- intelligence,
- innovation,
- integration,
- internationalisation.

Katowice, as an intelligent city, is expected to systematically increase and make use of the knowledge potential of the local community. It should stimulate its inhabitants through continuous development of cultural or recreational activities.

Katowice, as an innovative city, is to become a strong entity that constantly implements cultural, social or technological innovations. Such activity will result in the creation of an interesting public space and numerous events and products targeted at national and international recipients.

Katowice, as an integrated city, will strive to ensure a high quality of life for its inhabitants and will initiate activities based on the collaboration with other cities. Katowice is especially open to cooperation with towns from the southern part of Poland.

Katowice, as an international city, will try to become a place that is known in the European area of culture and economy, whose facilities, artistic circles and products will be recognised worldwide. Moreover, Katowice will strive to increase its openness to external investors in order to establish its presence on international markets (see Table 2) [Strategia rozwoju miasta Katowice 2030: 12-14].

The first operational objective of the programme is to protect and promote the cultural heritage of Katowice. The second objective is connected with the development of the infrastructure of scientific and cultural centres. The main categories of tasks in the above-mentioned areas include:

- supporting artistic, cultural and research activities of international importance,
- creating cultural products and events recognised worldwide,

Table 2. Development strategy for the city of Katowice in the area of culture

City	Programme name	Period of time	Strategic goal	Operational goals
Katowice	Katowice as the capital city of Upper Silesia and Upper Silesia Metropolis of the 21 st century	2015-2030	A strong position of the city as an interdisciplinary academic, research and cultural centre	Preservation and promotion of the historical heritage of Katowice Development of the infrastructure of the multidisciplinary scientific and cultural centre

Source: Strategia rozwoju miasta Katowice 2030.

– shaping an attractive inner-city area.

With respect to the city's plans concerning the cultural sector, the following activities are worth mentioning:

- modernisation of architectural monuments,
- creation of high standard cultural services,
- cooperation with the academic community,
- alteration of Krystyna Bochenek Centre for the Culture of Katowice (Centrum Kultury Katowice im. Krystyny Bochenek).

These investments will enable Katowice to become the centre of the Upper Silesia Metropolis and a strong centre of the network of Polish metropolitan cities.

When analysing the development strategy in the cultural sector, one should also consider the city's expenditure on culture. Table 3 presents expenditure on activities included in section 921 – Culture and protection of national heritage.

In 2014, the city spent PLN 210 million on culture and protection of national heritage. The biggest amount was spent on supporting the activities of philharmonic halls, orchestras and bands – PLN 159.7 million. Other expensive items include culture and art centres – PLN 17.3 million, cultural centres – PLN 8.96 million and libraries – PLN 8.92 million. In 2015, expenditure on culture

Table 3. Expenditure under section 921 – Culture and protection of national heritage of the city of Katowice

Budget expenditure	2014	2015	2016
921 – Culture and protection of national heritage	210,453,120.66	61,524,182.73	60,876,943.94
92106 – Theatres	2,790,478.00	3,237,675.09	3,166,514.00
92108 – Philharmonic halls, orchestras, choirs and bands	159,708,381.34	5,649,736.00	5,974,220.00
92109 – Cultural centres, community centres and clubs	8,969,211.13	8,018,649.95	7,836,382.73
92110 – Galleries and art exhibition bureaus	1,387,662.00	1,644,326.85	1,510,298.41
92113 – Culture and art centres	17,329,098.00	20,994,400.00	20,856,059.00
92114 – Other cultural institutions	1,610,479.00	1,604,240.00	1,543,624.00
92116 – Libraries	8,926,298.00	9,961,301.31	10,296,520.41
92118 – Museums	4,075,509.51	5,971,122.06	6,440,919.00
92120 – Protection and care of monuments	985,256.16	499,996.99	490,133.71
92195 – Other activities	4,670,747.52	3,942,734.48	2,762,272.68

Source: <https://bdl.stat.gov.pl/BDL/dane/podgrup/tablica> [accessed 22.10.2018].

and protection of national heritage decreased by PLN 148.28 million. This decline was mainly due to the much lower amounts of financial aid for philharmonic halls, orchestras and bands – only PLN 5.6 million, and protection of monuments – cut by half to nearly PLN 500,000. However, an increase was recorded in the amount spent on culture and art centres – PLN 20.9 million, theatres – PLN 3.2 million, libraries – PLN 9.9 million, and museums – PLN 5.9 million.

In the last year of the period in question the expenditure on culture and protection of national heritage in the city of Katowice saw another slight decrease to PLN 60.8 million, which represents a decline by PLN 647,000 compared to 2015. While spending on libraries, museums and philharmonic halls, was increased, cultural centres, galleries and art exhibition bureaus as well as other cultural activities of the city received less money. The 2014-2016 period saw a decrease by PLN 149.5 million in the city's spending on culture and protection of national heritage.

5. Conclusion

The literature contains a lot of research on city development strategies. However, most studies are comprehensive and cover all areas of the city's development strategy such as: the economy, tourism, sport, environment, infrastructure, health protection. This study, in contrast, focuses on the cultural sector.

People's contact with the cultural sector is understood as a possibility of satisfying their cultural needs, which involves consuming cultural goods. This activity is completely voluntary – however, people should have the benefit of enjoying the most attractive form of such activity. People's participation depends on individual tastes or choices, which are affected by the quality and range of cultural activities in a given environment. What kind of cultural activities are supported by a local government unit can be seen in the document of its development strategy. The inclusion of the cultural sector in the development strategy ensures people's access to cultural services. Katowice is an example of a city that includes the cultural dimension in its development strategy. Intensive efforts by a local government unit to supply cultural goods and provide cultural services are manifested in the creation of aesthetic experiences and opportunities to use knowledge carriers.

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Sektor kultury w kontekście strategii rozwoju miasta. Studium przypadku

Streszczenie. *Celem artykułu jest ukazanie wpływu sektora kultury na strategię rozwoju jednostek samorządu terytorialnego. Część teoretyczna ukazuje sektor kultury w kontekście działań miasta. Zagadnienia te zostały opracowane na podstawie literatury przedmiotu, natomiast część praktyczną stworzono poprzez analizę źródeł wtórnych pozyskanych za pośrednictwem Głównego Urzędu Statystycznego i dokumentów na temat strategii rozwoju miasta. Działania miasta w obszarze sektora kultury przedstawiono na przykładzie Katowic.*

Słowa kluczowe: *kultura, miasto, rozwój, strategia rozwoju miasta, sektor kultury*

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Analysis of Selected Social Media in Creating a Personal Brand

Abstract. *The aim of the article is to show the functionalities of selected social media in building a personal brand and to make a comparative analysis of the presented social media from that perspective. To sum up, the aim is to analyse the possibility of building a personal brand in social media such as: Instagram, LinkedIn and YouTube. The paper presents the concept of image, personal brand and the benefits associated with its conscious construction. The paper explains what social media are and how they are classified. It has been shown how to create a brand effectively using the above mentioned social media. The research methods used in the paper are the following: description, comparison, the results of own observations and analyses of selected own brands promoted in the above mentioned media. In addition, available professional literature and Internet resources in the form of articles, reports and statistical data were also used. The most important conclusions can be summed up with a statement that building a personal brand mindfully and using social media that offer such opportunities has its unquestionable benefits, but this must be done in a natural and reasonable way.*

Keywords: *personal brand, image, personal branding, social media, Instagram, LinkedIn, YouTube*

1. Introduction

The brand is often the indicator of success of a given company or product. It affects its recipients emotionally, and its aim is to help build long-term relationships. Marketers and entrepreneurs are competing in inventing new ways to build a strong, recognizable brand. Therefore, with many ideas already implemented,

a just product brand is not enough to achieve the set sales targets or image goals. A personal brand may prove to be a useful asset at this point and the reason is simple – everyone wants to know who they are buying from and who they are working with. Behind every company there are people and it is not just an empty phrase. A company with a “human face” is more trustworthy. The name of the company does not always say much, but the name of its owner does.

Steve Jobs, Paweł Tkaczyk, Barbara Stawarz, Rahim Blak – these are just a few of the examples of personal brands that surpassed the brands of their companies in terms of popularity. The type of personal brand that defines them best is the expert category. It should be noted, however, that a personal brand does not have to be a support for a company’s brand or product – it can simply be a brand in itself. Separate, single, but equally strong. There are many such examples, especially in show business. In that case, it is a brand name such as a celebrity, star or influencer, i.e. an opinion leader who has an influence on their customers during e.g. a purchasing decision.

Every personal brand, regardless of its type, needs a place where it can function. In the era of the Internet, it is also the Web where the daily activities concerning the brand, its promotion and development should be directed. Social media prove to be useful in this respect.

Nowadays, social media have a huge impact on modern society. They were previously connected only with the private sphere of life, but they have also been successfully used in the professional areas. Brands – both product and personal – have noticed that this is where their audience is, and through the mobility of this type of channel they can stay in touch with them on a regular basis. Therefore, social media should not be ignored by looking at them only as potential time wasters or means shallowing the human image (such a complaint most often concerns the Instagram application). Social media used in a skillful way may turn out to be an invaluable tool for building a personal brand.

2. Personal brand, personal branding and image – definitions

We are born with personal brands. They cannot be purchased or, conversely, sold. The personal brand, however, has a somewhat ambivalent understanding. On the one hand, it is a set of personality traits, behaviours, values and actions that distinguish a particular brand owner in a social group. Anna Piwowska [2015] in her book even claims that a personal brand consists not only of resources, values, knowledge, experience, history and capabilities, but it also contains the resulting limitations [Piwowska 2015: 29-30]. On the other hand, a personal brand is an image based on the emotions and feelings of others about its owner.

This explanation is well illustrated by Jeff Bezos' quotation, which is one of the most popular definitions of a personal brand: "A personal brand is all that people will say about you when you leave the room" [Leśkiewicz-Kowalik 2018]. The conclusion is as follows: the only creator of a personal brand is its owner, because it consists of elements of their personality and behaviour. However, it is the consumers who decide whether a brand is noteworthy or not.

Why does it seem then that some people have a personal brand and others do not necessarily have one? This issue is regulated by the process of its formation, i.e. personal branding. It is a process of building a personal brand mindfully. Mindfully suggests it serves a purpose. Personal branding allows you to create a strong, solid personal brand, i.e. one that will stand out (although, as mentioned above, it is its recipients who have the final say). According to Dan Schawbel, personal branding is "the process in which individuals and entrepreneurs individualize themselves, stand out from the crowd and present the professional or personal value of the resources and competences to which they are the only ones with access. This process is carried out through various channels, presenting a coherent message in order to achieve the set goal. In this way, the individual can fortify their value as a specialist in a specific area of activity, earn their credibility, develop a career and gain self-confidence" [Schawbel 2012: 140].

Although building a personal brand is usually associated with the professional aspect of human life, in fact, the personal brand is shaped in many areas that include:

- work,
- life (outside work – private and social life),
- money [Żukowski 2017: 20].

This is due to the fact that the personal brand is not a kind of mask worn only while performing professional duties. A personal brand stays with its owner all the time, therefore "building a personal brand is about showing yourself to the world in an authentic way – in anything you say and do [...]. During and outside working hours" [Piwowarska 2015: 29]. This is one of the most important, if not the most important, features of a personal brand – authenticity, which leads to the coherence of all actions and behaviours. This in turn translates into a specific image.

Image is a term often associated with a personal brand or even used interchangeably. This is a mistake because personal brand and image are two different terms. The "image reflects the brand in the minds of recipients [...]. The image is affected by conscious and unconscious elements, those with rational, emotional and social background [...]. It is a subjective vision of a brand that does not have to convey the signs of permanent reception" [Walczak 2016: 53]. Moreover, an image consists of the synthesis of things such as a name or nickname, an exter-

nal appearance (dressing style, hairstyle, make-up, etc.) and behaviour. Personal brand image is also influenced by the activity in the media and on the Internet.

By juxtaposing the definitions of personal brand and image, one can find the differences between them. The first one is the ability to control (or lack thereof). The owner has complete control over the creation of a personal brand. The owner is the one who creates it from the beginning to the end and the one who decides what it should look like. On the other hand, brand owners have a limited influence on image building – after all, you cannot penetrate the minds of its recipients and shape the ideas they have about a brand. It is also difficult to check precisely what this image really is like, although various types of research may help in that respect.

The other difference between the brand and the image is the changeability. Brand is built on a set of specific values, which are not subject to change or time limitations (if this was the case, then the brand would not be considered to be authentic). The image may change depending on the situation. An example of such a change is the personal brand of Michael Jackson, who built it on values such as goodness, love and peace. In spite of this, his image has undergone numerous changes due to accusations of child abuse or the illness he suffered from.

3. Social media – definition, functions and classification

There is no study that would precisely quantify the current number of existing social media. This is due to the fact that some media appear very quickly and disappear from the market even faster than they appeared – social media is one of the most dynamic branches of marketing. Moreover, it is difficult to clearly define what social media are, as not every website can be given that name. Despite these doubts, however, several definitions of social media have been developed. Howard Rheingold defines them as a social clusters emerging from the Internet in a situation in which individuals, using the web, conduct long enough public conversations, with enough emotional commitment to create personal relationships with other individuals in cyberspace [Rheingold 1993: 6]. According to another definition social media are “social means of communication that are subject to social control and which can be used on any scale, including both the message content and possible points of view related to the information conveyed” [Królewski, Sala 2016: 89]. The above mentioned may lead to a conclusion that social media are online groups of people who aim to create and maintain relationships in a virtual world.

As mentioned above, not every website can be included in the social media category. The most important characteristics of social media are as follows:

- “Can be used on any scale,
- accessibility for all concerned,
- the ability to modify the original information infinitely,
- free access to the creation and reception of content,
- creation through the idea of social participation,
- direct impact of the group on the final value of the information,
- lack of top-down coordination between creators,
- availability of content,
- dissemination of content through social interaction.
- reducing to a minimum the time needed to publish the content,
- the non-compulsory way in which the content is created” [Grębosz, Siuda, Szymański 2016: 12-13].

Today, social media are not only a tool for socializing. Internet users are looking for friends there, but also for the latest news from around the world, advice on choosing a car model, opinions on cosmetics or holiday ideas. This is usually due to the lack of time to browse many websites and the desire to obtain the necessary information as soon as possible. Generation Y, i.e. people born between 1980 and 1996, wait on average 3 seconds for a website to load and then spend a little more time on it, about 9 seconds (if they don't find what they're looking for). The Z generation, on the other hand, the users born in the current millennium, have shortened their website loading time to just 1 second. Therefore it is no wonder that major social networking sites like Facebook and Instagram are getting faster and offering new features to make their users stay for a longer time.

The functions of social media are diverse and directly related to their types. Here is the basic classification of social media:

- “Social networking sites that bring together communities around them and their activity is community-based. They are most often associated with Facebook, or formerly with NaszaKlasa.pl [Polish social network].

- Content services, i.e. those containing mainly images and video content created by Internet users. The most popular in Poland are: YouTube, Instagram and Demotywatory. They are usually integrated with Facebook, which makes it easier to share content.

- Microblogs with content which is short and contains a specific message. The most popular microblog in Poland is Twitter, with message size limited to 140 characters.

- Blogs (weblogs) that allow you to publish and archive entries. All blogs are called the blogosphere. Blogspot.com is the most popular blogging platform in Poland.

- Forums – the oldest type of social media. Forums are also the most diverse medium. The most popular are the ones which are closely related to large Internet portals, e.g. forum.gazeta.pl.

– Q&A services – they are most popular among people under 20. Their users can gain knowledge related to various aspects of life. In Poland, Ask.fm has become the number 1 service.

– Internet news services that find and deliver the most popular Internet content to their users. The most famous Polish one is wykop.pl.

– Wiki-type services containing sorted out knowledge from many fields of science. The least diversified medium in Poland. The most popular one is Wikipedia.

– Social geolocation services that allow you to „check in” at your current location, be it a holiday in some tropical destination or a café. Foursquare.com is a typical example of such a service, however it is not very popular in Poland. Geolocation features are also provided by Facebook and Google+” [Granos 2016].

In the case of content services, worth mentioning are such portals as: Canva, Piktochart, Powtoon or Giphy. Their main function is to help their users create appropriate content (graphics, video or animation) with the tools provided by the website. In this way, a user does not need to have graphic design or editing skills and the relevant computer program. An extra feature is the opportunity to share the created work products with the portal’s community.

Social media are often referred to as the fourth medium (interchangeably with the whole Internet). Their task is to inform, help, entertain, inspire, advertise – to mention just a few most common ones and there are many more functions that may be included here. In various web services – including the largest ones, such as Facebook, as well as relatively newer ones, with a strongly defined target group, such as TikTok, there are almost 4 billion active users in total all over the world (i.e. about 45% of the whole global population). No wonder that personal brands look for their customers also there. However, some portals are more friendly in terms of building a personal brand than others.

4. Analysis of selected social media in creating a personal brand

Instagram is the fastest growing medium in the world, as evidenced by the continuity of implemented functions and growing popularity among users of all ages. That is why many types of personal brands decided to conduct their personal branding there. Once Instagram was a place where celebrities used to promote themselves. This did not change, but apart from them there are now also experts and influencers, who nowadays are one of the biggest group of users. In any case, they all now share a common name – the Instagrammers.

Instagram feed, i.e. tiles with photos visible on the profile, cannot be random pictures while building a personal brand. The personal brand is not only something authentic but also consistent, and in case of personal branding at Instagram, one of the signs of consistency is the well-presented feed. To achieve this, you have to make sure that the colours of each photo are similar and match each other to give the tiles a harmonious appearance. Speaking of profile photos, it is recommended that each one has the same size. The basic shape of the photos in the application is a square. In August 2017, other picture shapes were introduced [*Thinking Outside the Square...* 2015].

An important feature of Instagram in personal branding are Instagram Stories. These are video or picture reports, which are visible when you click on a user's profile picture or on the homepage after logging in (the so-called news stream). A single story (video, photo) can be no longer than 15 seconds and it is available for viewing in the brand profile for 24 hours. A similar feature had been used before by Snapchat, and it grabbed the attention of both developers and users.

The Instagram Stories feature was introduced in August 2016 and it has been popular ever since, also due to the fact that additional features are constantly being added. A story can be enhanced with the following overlay elements: text, location, mention of another user, hashtag, gif, current time, survey, question, countdown, popularity indicator, current temperature, icon-shaped stickers and by choosing one of the optional colours of the photo or video overlay. Moreover, a brush can also be used. Although Instagram Stories feature was intended to share rather inconsequential content (e.g. event backstage news or casual talks about a specific topic), many personal brands are very meticulous in their preparation. Dedicated Instagram Stories applications, such as Unfold and StoryArt serve that purpose. They allow a user to frame photos and ready-made templates, add sheriff's font to the text, add animation, and create a precise narrative. The popularity of Instagram Stories is based on its functionality. It facilitates content presentation in a broader way than just a photo in a feed. As many Instagram users only visit Instagram to see the latest news, so it's important that the personal brand focuses on recording Instagram Stories if they don't want to be forgotten.

Applications that support the creation of interesting Instagram Stories have already been mentioned, but the photos published in the profile can also be changed. In the past, Instagram used to offer only built-in filters for this purpose. Today, however, users are moving away from them, choosing separate image processing applications. Lightroom Mobile is one of the most popular ones – it is an application that is a mobile version of Adobe Photoshop Lightroom, a professional program for processing images. VSCO or Snapseed application are equally popular and worth mentioning here, the latter was developed by Google.

Since the end of 2015, Instagram has been offering paid advertising feature. The different advertising formats vary according to the objectives to be achieved,

therefore before a personal brand starts promoting itself, it must first determine which goals are most important with reference to its Instagram activities:

- promotion of an external website in the form of a photo or video with a link to e.g. a website in order to redirect traffic there,
- promotion of a photo or video (or post), which is meant to increase the reach and involvement of the audience in the profile,
- promotion of several photos, articles or products – the so-called carousel advertising, which is a collection of photos that can be viewed with the movement of a finger to the left (a similar format is very popular on Facebook),
- installation of a mobile application, a tool to redirect users to an application store, where applications created by the brand can be purchased,
- promotion of Facebook posts, which is possible due to the compatibility of these two social media without the need to have an Instagram account.

The last thing worth mentioning in the context of building a personal brand on Instagram are hashtags. These are “#” tags placed under photos or videos to increase the posted content range within the application. Moreover, hashtags are also a way to add a slogan to the content and summarize it. There are many popular, universal hashtags helping to increase reach, and this is the main purpose why a personal brand should use them if it wants to find new followers. An example of such a hashtag is #throwbackthursday, which means Thursday’s return to the past through making available a photo from a past event or period, and also #picoftheday, which is ‘photo of the day’. #ootd – ‘outfit of the day’ is the hashtag leader in the fashion environment. However, in order to distinguish a personal brand from other brands, apart from using popular hashtags, unique and original ones should be used. One example of such a strategy is the hashtag #ciekawostkinadii (the meaning in Polish *Nadia’s titbits*) created by Nadia Długosz – an influencer and youtuber, who uses the hashtag to tag posts describing some interesting facts about photos used in her posts.

As far as social media are concerned, LinkedIn is the one where the first impression really matters. When evaluating a personal brand created on Instagram, the Internet user will pay attention to its profile and content, which in turn takes some time. However, the key to success on LinkedIn (i.e. finding a new job or establishing new business contacts) is a profile full of track record details, which is the underlying principle organizing the functioning of the service. A profile should contain as much relevant information as possible. The detailed profile description, as well as the effectiveness of the process, are defined precisely by a system of levels: beginner, advanced and the highest one (previously called the master level). The highest level profile will get up to 27 times more profile views by headhunters [Męclewska 2018].

In the first step, the profile should be filled in with the basic information, such as name, surname, city, contact details, etc. A professional profile photo is

very important (preferably taken by a professional photographer), the user should be dressed appropriately and pictures from private archives should be avoided. Another picture with some background is also a good idea to add – links to your web pages in graphic form can be added here as well (it is important that the available space is somehow filled up). Another step is a short (120 characters) description of the person and professional activity, plus a link to the user's own website or blog. It is also recommended that a CV (pdf file preferably) is added to the profile.

The other profile sections to be completed are:

1. Experience, which is one of the most important sections to be completed in the LinkedIn profile. A minimum of two posts should be added: current and previous. Apart from the position, the company name and the period of work, it is also worth to add a short, though detailed description of responsibilities connected with a particular position (this can be done in the form of a list), achievements, rewards, etc. Wayne Breitbarth in his advice suggests that not only the positions in the current professional area should be mentioned, but also the past ones as well. In this way, you may draw interest of recruitment agencies or business partners who are looking for specialists with experience in many professional areas. On the other hand, however, this should not be exaggerated, to prevent a personal brand from being perceived as inconsistent and pointless.

2. Acquired education, i.e. university degree, but also secondary school level. This will help to find and contact colleagues and friends from the past. This must also include information on all competences, diplomas and professional qualifications. To strengthen a personal brand, information about scholarships, trips abroad or won competitions may be included [Breitbarth 2013: 56, 62-63]. There is a view that headhunters or other entrepreneurs are more likely to establish contact with professionals who attended similar schools they did.

3. Skills and acknowledgements – this is another important section that may be critical for the establishment of professional cooperation. Add a minimum of 5 tiles out of 50 available. A good practice is to be detailed in the made choices and ensure that the skills in the profile are confirmed by current and former bosses, colleagues or business partners. The more confirmations from other LinkedIn users, the greater is the credibility which is a very important factor in the eyes of potential employers [Męclewska 2018].

4. The Achievements section should list all achievements in a broad sense, e.g. as particularly important projects, completed training courses, foreign languages, as well as publications on the Internet, in books or trade journals. Adding here a short description and date for each of the listed items is recommended. The achievements listed on LinkedIn may have a great influence on the selection of a candidate for a given position and will definitely be helpful in getting a better job.

5. A summary which should recap all other sections and present the person with main focus on the professional context. The text can have a maximum of 2000 characters and it is recommended that full use of them is made. Use of the narrative form in the first person singular is welcome. Apart from the summary of professional experience, the recap section may also include such elements as interests, professional goals, benefits for the company from recruiting the profile owner or a short description of significant business relations [Breitbarth 2013: 72-74].

Apart from the filled with detailed information profile, the user's portal activity is also important in the context of personal branding. In order to present oneself as an expert and increase the audience, it is necessary to share interesting, but at the same time professional and serious content, e.g. links to industry articles, in the provided share box. Subscribing to interest groups, commenting and leading conversations should not be underestimated. Private message content should be personalized for exchange between members; the ready-made template should be avoided in that situation.

Like other social media, LinkedIn also offers the feature of paid profile advertising to increase profile audience network. There are several forms of additional paid promotion: pictorial advertising (banners), text advertisements (similar to Google AdWords), InMail communication and sponsored posts, which are displayed in another user's newsfeed [Żukowski 2017: 176].

LinkedIn is a free portal, but it also has an extended paid version called LinkedIn Premium. You can test it without paying for a month and then decide to buy a subscription offering more options. Its cost depends on the type of Premium version – prices start from 22 euros per month. Subscription type should be chosen according to professional objectives. Their names are: Career, Business, Sales, Employment.

YouTube is the second (after Google) largest search engine in the world and by far the most popular social media focusing on video content. "YouTube is said to be the biggest TV competitor [...]" [Żukowski 2017: 195]. It is therefore a perfect place for building a personal brand and here, too, one should carefully consider such principles as consistency, regularity and authenticity. The personal brands on YouTube, like those on Instagram, share a common name – YouTubers, and the activity of some has already reached such a level that YouTuber is now also a profession name.

In the case of personal branding on YouTube, attention should be paid primarily to the appearance of the shared content, but it is also important to present the personal brand in the profile. To do so efficiently, it is necessary to:

- complete the 'Information' tab to encourage viewers to watch videos,
- create a channel trailer, which will be a welcome video and an advertising spot in one,

- take care of an intro (introduction) with a jingle and a photo or logo,
- organize videos grouping them in different channel sections [Kawasaki, Fitzpatrick 2014: 166-167].

The following rules should be followed when making videos:

- use natural setting: outdoors or indoors,
- use sound and visual effects sparingly not to distort perception,
- choose rather hand-held than tripod-assisted shots if tripod is not absolutely necessary,
- use natural daylight and limit the use of artificial light as much as possible,
- focus on a single story, avoid too much sidetracking,
- be authentic and curious [Żukowski 2017: 196, 199].

The main subject area of a channel is also related to the type of video content the YouTuber decides to use. We can distinguish such video forms as vlog (shared events from the artist's life or reflections and comments on a specific topic), tutorial (a video teaching by showing step by step how to perform an activity, e.g. put on makeup), unboxing with review (opening a package sent to the creator of a live film and commenting on the products received, based on the first impression) or webinar (a kind of live lecture with a possibility to send messages to the hosts during the event).

Before deciding to create a personal brand on YouTube, you should be aware that special attention and preparation are required when attempting activity on this platform. It is important to have a specified main subject area that must be well thought-through, in line with the interests or specialisations of the author, and tailored to the target group. Moreover, the choice of high quality equipment and the right recording location are also central to the success of the channel.

Personal branding is also based on creating and maintaining long-term relationships. YouTube offers its creators yet another way to strengthen bonds with their audiences through Patronite. It is a program connecting YouTubers (Authors) with recipients (Patrons) who wish to support financially a YouTube channel and its creator. Patrons make regular monthly deposits to the Author's account, and the resources can be used to improve the channel. In this way, authors get new opportunities for development, and the patrons gain access to bonuses in the form of e.g. prizes from the authors.¹

There is also a paid promotion option on YouTube. There are many forms of such advertising, but two main types are most popular: In-Stream advertising (which is displayed automatically, without the user's intervention) and In-Display advertising (it must be activated by the viewer to see it) [Daniłóś 2016: 152].

¹ https://patronite.pl/jak_to_dziala [accessed: 24.10.2019].

The following types of In-Stream advertising can be specified:

1. Video ads that can be skipped after 5 seconds. They usually last for a maximum of 20 seconds (30-second ads are non-skippable). They appear before, during or after the film. This is one of the most popular types of ads.

2. Bumper ads that are displayed in the video player on computers and mobile devices. They cannot be skipped – they last 6 seconds and appear before the start of the video.

3. Sponsored cards, which are a kind of teaser for the card, displaying a few seconds of content relevant to a personal brand video. The advertisement is displayed on mobile devices and computers.

The following In-Display advertising formats are available to users of the platform:

1. A classic display advertisement appearing most often on the screens to the right of the feature video and above the video suggestions list, less frequently positioned under the video. Size: 300×200 or 300×60 .

2. Advertising overlays that are semi-transparent and appear at the bottom of the film window. The advertisement can only be displayed on computers. They may be text or image ads and in size 468×60 or 728×90 [Stępowski 2017: 112-114].

5. Summary

Building a personal brand mindfully has its benefits. By developing it you can enjoy the recognition of others and feel that you are someone you have always wanted to be. A personal brand brings also a lot of other, measurable advantages, e.g. a well-paid job and, as a consequence, improves the quality of life. The personal brand helps to achieve a sense of fulfilment and live a life without worrying much about the future.

Social media play a significant role in creating a personal brand. They can help to create a modern personal brand from scratch, not necessarily as a mere complement to the process. Naturally, there are people who don't need a social media presence to develop their brand successfully, Dr Irena Eris is certainly one of them. However, if a brand is just in the emerging stage, nowadays the Internet and social media will facilitate the process immensely.

Social media differ not only in appearance, but also in their functionality. Therefore, they must be relevantly matched with a specific brand. When choosing a brand, it is also important to remember that building a personal brand must be an authentic process. Every social medium is different, but a personal brand must choose the one which will make it feel like a good match. The one that

Table. 1. Social media functionalities

Functionalities	Instagram	LinkedIn	YouTube
User can make posts (with images)	yes	yes	yes
User can create video narratives (Stories)	yes	no	no
User can use hashtags* without any limits	yes	yes	yes
Optional paid advertising	yes	yes	yes
Users can join groups	no	yes	no
Users can send private messages/chat feature	yes	yes	no
Appearance and profile extension options (1-5 ranking)**	4	5	3

* Hashtags that allow linking to other similar content.

** An extended profile means the one that includes a description, a profile photo, a background photo and other useful features.

Source: researcher's own resources.

will suit its needs well and the one which hosts its recipients. The set of the most frequent functionalities helpful in creating a personal brand is presented in the table below:

Summing up, each of the media offers a different set of possibilities, as shown in the table above. Depending on the intended effect while creating our own brand, specific social media should be chosen. Social media involved in personal branding should also be viewed with future context in mind. Instagram, the fastest growing application of its type, is introducing new features, which can be very helpful in the process. For example, the developed Threads application, which is used to maintain relations with closest friends hosted by the platform, may become a future tool for communication with recipients of personal brands, and by using it brands will perhaps form fan groups, strengthening in this way their relations with them.

The benefits of social media should therefore be used and explored, but while doing that, making use of reason and guided by sincere intentions, and not only employing marketing thinking. Only in this way can social media contribute to the positive perception of a personal brand.

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Analiza funkcjonalności wybranych mediów społecznościowych w kreowaniu marki osobistej

Streszczenie. *Celem artykułu jest ukazanie funkcjonalności wybranych mediów społecznościowych w kreowaniu marki osobistej i porównanie prezentowanych mediów pod tym kątem. W artykule przeanalizowano możliwości budowania marki osobistej w mediach społecznościowych: Instagram, LinkedIn oraz YouTube. Przybliżono pojęcia: wizerunku, marki osobistej i korzyści, jakie wiążą się z jej świadomym budowaniem. Wyjaśniono, czym są media społecznościowe oraz jak wygląda ich klasyfikacja. Ukazano, w jaki sposób można efektywnie kreować markę za pomocą wymienionych wyżej mediów społecznościowych. W pracy wykorzystano następujące metody badawcze: opis, porównanie, wynik własnych obserwacji i analiz z wybranych marek własnych promowanych w wyżej wymienionych mediach. Ponadto wykorzystano dostępną literaturę branżową i źródła internetowe w postaci artykułów, raportów i danych statystycznych. Najważniejsze wnioski można zawrzeć w stwierdzeniu, że warto świadomie budować markę osobistą i wykorzystywać do tego media społecznościowe, ale należy to czynić w sposób naturalny i rozsądny.*

Słowa kluczowe: *marka osobista, wizerunek, personal branding, media społecznościowe, social media, Instagram, LinkedIn, YouTube.*

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- jeśli autor wydał w danym roku więcej niż jedną publikację, to po dacie należy dodać kolejne litery alfabetu, np.
[Nowak 2014a, 2014b]

Przypisy objaśniające, polemiczne, uzupełniające tekst główny oraz **przywołujące akty prawne, wyroki i orzeczenia sądów i adresy stron WWW** – numerowane kolejno i **umieszczone u dołu strony**, czcionka 10 pkt, interlinia pojedyncza.

Bibliografia

- pozbawiona numeracji
- uporządkowana alfabetycznie według nazwisk autorów/redaktorów i tytułów prac niemających autora/redaktora, a jeśli jest więcej prac jednego autora, to należy je zestawić chronologicznie wg dat wydania
- **artykuł w czasopiśmie** – nazwisko autora, inicjał imienia, rok, tytuł artykułu (prosto), *tytuł czasopisma* (kursywą), nr czasopisma, zakres stron:
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• akt prawny

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• raporty, analizy

GUS, 2015, *Pomorskie w liczbach 2014*, Gdańsk.

• źródło z Internetu

(w nawiasie pełna data korzystania ze strony WWW):

www.manpowergroup.com [dostęp: 28.05.2015].

Ilustracje

- edytowalne, wyłącznie czarno-białe,
- rysunki, wykresy i schematy – w plikach źródłowych (*.xls lub *.cdr)
- zdjęcia – w plikach źródłowych (najlepiej *.tif), rozdzielczość min. 300 dpi
- opatrzone numerem oraz źródłem (np. *opracowanie własne*)
- pozbawione napisów: półgrubych, wersalikami, białych na czarnym tle, czarnych wypełnień, dodatkowych ramek
- z odwołaniem w tekście (np. *zob. rys. 1*, a nie: *zob. rysunek poniżej/powyżej*)
- z objaśnieniem użytych skrótów

Tabele

- ponumerowane, opatrzone tytułem oraz źródłem (np. *opracowanie własne*)
- z odwołaniem w tekście (np. *zob. tab. 1*, a nie: *zob. tabela poniżej/powyżej*)
- każda rubryka wypełniona treścią
- skróty użyte w tabeli – objaśnione pod nią

Wzory matematyczne

- przygotowane w programie Microsoft Equation 3.0
- poprawnie zapisane potęgi i indeksy
- zmienne – kursywą, liczby i cyfry – pismem prostym
- znak mnożenia to: \cdot lub \times (nie gwiazdka czy „iks”)
- pisownia jednostek – według układu SI
- symbole objaśnione pod wzorem