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The DEA method in the evaluation of the effectiveness of the Special Economic Zones in Poland in 2014

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Abstract

The aim of the study is to examine the degree of effectiveness of the Special Economic Zones in Poland and to indicate the diversity in their operation. In addition, the author's intention was to identify the determinants of efficiency, taking into account the political and economic conditions in which the zones function and their geographical location. The study uses data included in the *Information on the implementation of special economic zones* available on website premier.gov.pl from 2015. The data available in the source material allowed for the analysis of year 2014 only. In order to determine the effectiveness of the zones, the DEA (Data Envelopment Analysis) method was used.

Paper type: research article

Keywords: data envelopment analysis, DEA, efficiency, Special Economic Zones, SEZ

Introduction

Special Economic Zones (SEZ) have been operating in Poland for over twenty years. During that time these zones have combined the needs of investors, by facilitating the activities and needs of the regions, creating new jobs and infrastructure development. There are currently 14 economic zones in Poland. They vary in terms of size, number of permits issued and the expenditures incurred for their operation. However, they all operate under the same conditions, variable domestic and foreign economic and political situation, are not subject to competition and are not profit-oriented. Nevertheless, the effects of the operation of these zones are varied. It becomes important, therefore, to check how each zone performs in comparison to others.

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The aim of the study is to examine whether SEZs operating in Poland maintain a sufficient ratio of expenditure to results. For this purpose, the DEA (Data Envelopment Analysis) method was used. It allows for specifying the pattern, so that one can determine which units are effective and which are not. The method used allows for the comparison of units for which there is no information about all the possible combinations of expenditure and effects. The knowledge about the effectiveness of individual zones may contribute to better allocation of public funds among zones and selection of units in which processes or management methods should be improved.

1. The formation and functioning of the Special Economic Zones in Poland

One of the main reasons for the formation of Special Economic Zones was the need to reduce disparities between the levels of economic development of regions which grew as a result of the socio-economic and political transformation in 1989. The benefits resulting from investing in the zones aimed at attracting domestic and foreign investors who, investing capital in the zones, will contribute to increasing the competitiveness of Polish regions (Nelec & Prusek, 2006; Kudelko, 2006).

The first piece of legislation giving rise to the creation of SEZ was the act of 20th October 1994 on Special Economic Zones. It laid out that the zone is a separated, uninhabited part of the Polish territory, in the area of which business activity under the terms of that act may be conducted (Journal of Laws of 2007, no. 42, item 273).

In its first form the act stated that the companies authorized to operate in the area were completely exempt from income tax for the first 10 years, and then, by the end of the existence of the zone, the relief was 50%. At the same time entrepreneurs were entitled to exemption from property tax (Golik & Kałtnik-Prokop, 2014, p. 181).

Since the establishment of zones, the rules of investing in them have been amended multiple times. Currently, the entrepreneur who receives a permit to operate in the zone can count on 15–50% relief from income tax. The amount of relief is dependent on the region/zone in which the entrepreneur operates. Small and medium-sized enterprises can, additionally, receive larger relief, respectively 20 and 10 percentage points (with the exception of large investment projects). In addition, the zones offer the use of developed land, the opportunity to purchase or lease the existing real estate, administrative support, as well as additional relief or exemption from property tax, usually offered to new entrepreneurs.²

² Ordinance of the Council of Ministers of 12 November 2014 amending the regulation on state aid granted to entrepreneurs operating on the basis of a permit for conducting business activity in special economic zones (Journal of Laws of 2014, item 1755).

At the end of 2014, in Poland there are 14 SEZs (Table 1).

Table 1 *Location and area of special economic zones*

Zone name	Voivodeship	Ranking	Share (%)	Area (ha)	The degree of land use (%)
Kamiennogórska	dolnośląskie, wielkopolskie	13	2.3	413.40	52.76
Katowicka	śląskie, małopolskie, opolskie	2	12.9	2,347.34	60.60
Kostrzyńsko-Słubicka	lubuskie, wielkopolskie zachodniopomorskie	4	9.6	1,746.98	63.19
Krakowska	małopolskie, podkarpackie	11	3.9	707.78	74.24
Legnicka	dolnośląskie	8	6.7	1,212.42	26.06
Łódzka	łódzkie, wielkopolskie, mazowieckie	7	7.2	1,302.26	75.08
Mielecka	podkarpackie, małopolskie, lubelskie, zachodniopomorskie	6	7.5	1,362.99	70.95
Pomorska	pomorskie, kujawsko-pomorskie, wielkopolskie, zachodniopomorskie	3	10.3	1,863.27	64.71
Słupska	pomorskie, zachodniopomorskie	10	4.5	816.79	35.05
Starachowicka	świętokrzyskie, mazowieckie, opolskie, łódzkie, lubelskie	12	3.6	644.46	66.01
Suwalska	podlaskie, warmińsko-mazurskie, mazowieckie	14	2.1	375.63	74.81
Tarnobrzaska	podkarpackie, mazowieckie, świętokrzyskie, lubelskie, dolnośląskie, podlaskie	5	9.2	1,677.17	68.84
Wałbrzyska	dolnośląskie, opolskie, wielkopolskie, lubuskie	1	14.6	2,648.59	59.93
Warmińsko-Mazurska	warmińsko-mazurskie, mazowieckie	9	5.6	1,014.88	69.51
SUM			100	18,133.97	61.63

Source: based on *Information on the implementation of special economic zones* in 2015.

Zones vary in size and degree of development. The largest area is of the Wałbrzyska Zone (2,648.59 ha), of which almost 60% has already been developed. The smallest zone is the Suwalska Zone (375.63 ha), whose area is 86% smaller than in the case of the Wałbrzyska Zone. The lowest percentage of development is characteristic of the Legnicka Zone (26.06%), the highest is in the Łódzka Zone (75.08%).

One of the factors which may contribute to the attractiveness and also the potential of the zone is the number of permits issued to conduct business activity. In 2014, 436 entrepreneurs received such permits (Table 2). In comparison with 2013, the number of permits granted rose by 72.3%.

Table 2 *Number of valid permits issued*

Zone name	2013	2014	Cumulatively at the end of 2014	Change 2014/2013 (%)
Kamiennogórska	10	7	61	-30.0
Katowicka	28	58	302	107.1
Kostrzyńsko-Słubicka	19	34	164	78.9
Krakowska	32	44	140	37.5
Legnicka	10	19	81	90.0
Łódzka	19	36	200	89.5
Mielecka	25	42	207	68.0
Pomorska	23	36	139	56.5
Słupska	14	20	75	42.9
Starachowicka	8	5	76	-37.5
Suwalska	11	16	81	45.5
Tarnobrzaska	14	39	184	178.6
Wałbrzyska	27	64	261	137.0
Warmińsko-Mazurska	13	16	85	23.1
SUM	253.00	436.00	2,056	72.3

Source: based on *Information on the implementation of special economic zones* in 2015.

In 2014, most permits were issued in the zone of Wałbrzych (64), Katowice (58), Kraków (44), Mielec (42) and Tarnobrzeg (39). The last one recorded the highest growth rate in relation to the previous year. The Kamiennogórska (7) and Starachowicka (5) Zones in 2014 issued fewer permits than in the previous year.

From the beginning of the operation of zones, at the end of 2014, most of permits were obtained by entrepreneurs in the zone of Katowice (302), and then in the

zone of Wałbrzych (261), Mielec (207), Łódź (200) and Tarnobrzeg (184). Businesses operating in the territory of the five zones mentioned acquired more than 56.1% of all valid permits. The total number of permits issued by the end of 2014 amounted to 3,211, but some of them have been revoked, discontinued or cancelled. Such situations occur in the event where the entrepreneur fails to meet the conditions of the permit, which usually refers to the condition of employment. In 2014 only, 45 permits were revoked (*Information on the implementation of special economic zones*, 2015, p. 13).

Entrepreneurs conducting business activity in the zones in 2014 spent 8,812.10 million in investment, which is 20.6% more than in the previous year (Table 3).

Table 3 *Investment expenditures in SEZ (in million PLN)*

Zone name	2013	2014	Cumulatively at the end of 2014	Change 2014/2013 (%)
Kamiennogórska	53.00	130.20	2,039.30	145.7
Katowicka	1,516.30	-12.40	21,097.1	-100.8
Kostrzyńsko-Słubicka	593.10	548.20	5,860.3	-7.6
Krakowska	178.10	397.70	2,362.1	123.3
Legnicka	818.60	831.90	7,134.3	1.6
Łódzka	835.30	1,652.40	12,467.9	97.8
Mielecka	422.50	593.80	6,652.8	40.5
Pomorska	548.50	1,202.50	9,064.7	119.2
Słupska	55.60	151.70	1,383.6	172.8
Starachowicka	103.60	142.10	1,886.9	37.2
Suwalska	26.60	137.00	1,745.2	415.0
Tarnobrzaska	212.50	376.90	7,952.4	77.4
Wałbrzyska	1,743.50	2,276.30	18,619.1	30.6
Warmińsko-Mazurska	200.80	383.80	3,687.6	91.1
SUM	7,308.00	8,812.10	101,953.30	20.6

Source: based on *Information on the implementation of special economic zones* in 2015.

The highest investment expenditures were incurred in the Wałbrzyska Zone, while the highest dynamics in comparison to the previous year was characteristic of the Suwalska Zone. A specific example is the zone of Katowice, where expenditures in 2014 gained a negative value. The reason for this situation is the withdrawal of the permit for one of the largest investors (*Information on the implementation of special economic zones*, 2015).

Another positive effect of the operation of the zones is the creation of new jobs. In 2014 213,939 new positions were created in all 14 zones (Table 4). It is 9.1% more compared to the previous year. The zone which created the majority of new jobs is the zone of Katowice, while the highest dynamics was characteristic of the zone of Kraków. The Starachowicka Zone was the only one where there was a decrease in the number of new jobs in relation to the previous year, and the Słupska Zone recorded the lowest number of new jobs.

Table 4 *New jobs created in the SEZ in 2014*

Zone name	2013	2014	Change 2014/2013 (%)
Kamiennogórska	4,622	5,508	19.2
Katowicka	39,133	40,524	3.6
Kostrzyńsko-Słubicka	15,062	16,929	12.4
Krakowska	7,928	9,717	22.6
Legnicka	9,983	11,319	13.4
Łódzka	20,535	23,564	14.8
Mielecka	19,731	20,585	4.3
Pomorska	11,848	13,345	12.6
Słupska	2,867	2,991	4.3
Starachowicka	3,368	3,324	-1.3
Suwalska	5,170	5,941	14.9
Tarnobrzaska	19,007	19,761	4.0
Wałbrzyska	28,830	32,139	11.5
Warmińsko-Mazurska	8,041	8,292	3.1
SUM	196,125	213,939	9.1

Source: based on *Information on the implementation of special economic zones* in 2015.

Special Economic Zones in addition to the land, of course, have managing authorities. They take care of the growth of the zones by developing infrastructure and promoting units to attract the greatest number of investors. The zones are usually managed by local governments or media managers.

In 2014, more than 390 million PLN was spent on infrastructure. And cumulatively, at the end of 2014 more than 3.5 billion PLN (Table 5).

Table 5 Expenditure on infrastructure (in million PLN) incurred by the companies managing the zones

Zone name	2014		Cumulatively at the end of 2014			The share in total expenditure of SEZ in 2014 (%)	The share in total expenditure cumulatively at the end of 2014 (%)	
	Management	Other	Total	Management	Other			Total
Kamiennogórska	0.3	0	0.3	18	4.4	22.4	0.1	0.6
Katowicka	6.2	81.7	87.9	42.5	459.9	502.4	22.5	14.0
Kostrzyńsko-Słubicka	0.8	14.7	15.5	89.7	199	288.7	4.0	8.0
Krakowska	7.9	16.9	24.8	96.9	102.4	199.3	6.4	5.5
Legnicka	1.1	0.8	1.9	47.2	18.4	65.6	0.5	1.8
Łódzka	6.2	7.2	13.4	48.4	286.1	334.5	3.4	9.3
Mielecka	0.1	59.9	60	122.5	369.5	492	15.4	13.7
Pomorska	31.4	12.9	44.3	448	71.8	519.8	11.3	14.4
Ślupska	0	8.6	8.6	21.6	127.4	149	2.2	4.1
Starachowicka	1.8	0	1.8	9.6	3.1	12.7	0.5	0.4
Suwalska	1.9	0	1.9	24.9	0	24.9	0.5	0.7
Tarnobrzaska	11.6	55.7	67.3	157.9	187.8	345.7	17.2	9.6
Wałbrzyska	28.5	28.9	57.4	144	357.6	501.6	14.7	13.9
Warmińsko-Mazurska	0	5.4	5.4	5.3	136.1	141.4	1.4	3.9
SUM	97.8	292.7	390.5	1,276.5	2,323.5	3,600	100	100

Source: based on *Information on the implementation of special economic zones in 2015*.

The zone, in which in 2014 the largest amount of money was spent on infrastructure (management together with others, i.e. community, media managers and the General Directorate for National Roads and Highways) is the zone of Katowice. It is surprising that, cumulatively at the end of 2014, the expenses were the highest in the Pomorska Zone, not in the Wałbrzyska Zone which is the largest zone or the Katowicka Zone which issued the biggest number of permits for conducting business activity. The Pomorska Zone accounts for 14.4% of the cumulative expenditure and the Starachowicka Zone, with the smallest expenditure on infrastructure, accounts for only 0.4% of total expenditure at the end of 2014 (Table 5).

As mentioned, the management authorities of the zones must also take care of the promotion of their zones. Table 6 shows the expenses incurred for promotion in 2014 and cumulatively at the end of 2014.

Table 6 *Expenditures for promotion (in million PLN) incurred by the companies managing the zones*

Zone name	2014	Cumulatively at the end of 2014	Share in expenditure in 2014 (%)	Share in expenditure cumulatively at the end of 2014 (%)
Kamiennogórska	0.15	1.29	1.9	1.8
Katowicka	0.73	11.44	9.4	16.3
Kostrzyńsko-Słubicka	1.24	10.96	16.0	15.7
Krakowska	0.57	5.32	7.4	7.6
Legnicka	0.14	3.05	1.8	4.4
Łódzka	1.07	8.77	13.8	12.5
Mielecka	0.15	2.64	1.9	3.8
Pomorska	0.88	8.54	11.4	12.2
Słupska	0.70	2.14	9.0	3.1
Starachowicka	0.14	1.51	1.8	2.2
Suwalska	0.25	3.49	3.2	5.0
Tarnobrzaska	0.19	2.51	2.5	3.6
Wałbrzyska	1.50	7.70	19.4	11.0
Warmińsko-Mazurska	0.04	0.65	0.5	0.9
SUM	7.75	70.01	100	100

Source: based on *Information on the implementation of special economic zones* in 2015.

The Kostrzyńsko-Słubicka Zone in 2014 spent the largest amount on promotion and, in total, since the beginning of its existence ranks the second place in terms of investment in this field. It is worth noting here that regarding the amount

of valid permits issued, this zone comes in the 6th place. The Warmińsko-Mazurska Zone both in 2014 and cumulatively at the end of 2014 spent the smallest amount for this purpose.

Under the current law, companies operating in the zones may benefit from exemption from income tax in the tax year or in the year following it for the purpose of the development of the zone, including the acquisition of real estate, or other things used for business activity in the zone, and the modernization and expansion of economic and technical infrastructure on its territory.³

Table 7 Tax exemptions of companies managing the zones (in million PLN)

Zone name	2012	2013	2014	Cumulatively at the end of 2014
Kamiennogórska	0.05	0.08	0.42	2.70
Katowicka	0.95	1.6	2.61	17.28
Kostrzyńsko-Słubicka	0.29	0.25	0.65	18.69
Krakowska	0.2	0.15	0.06	2.32
Legnicka	1.27	0.53	1.23	11.89
Łódzka	1.38	1.16	1.56	20.58
Mielecka	0.41	2.17	0.6	35.20
Pomorska	0.82	0.38	0.88	14.94
Słupska	1.91	0.72	2	15.68
Starachowicka	0.11	0.16	1.62	4.23
Suwalska	0.04	0.01	0.28	4.19
Tarnobrzeska	0.08	0.01	2.2	26.54
Wałbrzyska	15.3	7.7	0	52.73
Warmińsko-Mazurska	0.21	0.02	0.03	1.79
SUM	23.02	14.94	14.14	228.76

Source: based on *Information on the implementation of special economic zones* in 2015.

In year 2014, the companies managing zones benefited from tax exemptions amounting to 14.14 million PLN. As it has no effect on the budget, one can treat this amount as an additional effort in the operation of zones.

³ The ordinance of the Council of Ministers of 12 November 2014 amending the regulation on state aid granted to entrepreneurs operating on the basis of a permit for conducting business activity in Special Economic Zones (Journal of Laws of 2014, item 1755).

The Katowicka and Tarnobrzaska Zones benefited from the largest tax relief in 2014. The largest zone, the Wałbrzyska Zone, did not benefit from the exemption last year, but, on a cumulative basis, at the end of 2014 it benefited from the highest exemption among all the zones. The company in the zone of Warmia and Mazury gained the lowest tax exemption, cumulatively at the end of 2014 – less than 2 million PLN.

When assessing the economic effects of the specific zones, one should bear in mind that to a large extent they can be determined by the geographic location of areas and the associated level of development of socio-economic infrastructure and the availability of qualified staff. The zones which are among the leading ones when it comes to the number of permits granted, the value of investment and number of jobs created are located in the western, southern and central part of Poland, that is, in areas much more attractive in terms of investment compared with the northern and eastern part of the country.

2. The DEA method in the evaluation of the effectiveness of the Special Economic Zones

One can talk about the effectiveness of the company or the decision-making authority when a unit is able to achieve the intended effects with the expenditure established. However, to be able to determine whether a unit is effective or ineffective, it is necessary to determine the appropriate method of measurement and the relevant parameters, i.e. expenditure and results. In the event where they can be easily defined it is worth taking account of the assumptions of the function of production and use the parametric method, which indicates the maximum product that can be obtained with given expenditure. However, in the case of units for which one cannot observe all the combinations of expenditure and results, a nonparametric method should be used. These units are, inter alia, local government units, schools, hospitals, and also, as described above, the Special Economic Zones where the expenditure may include, inter alia, infrastructure spending, and in the case of the results it is the increase in employment.

The DEA method is a nonparametric method for measuring efficiency. It allows the comparison of the objects in the same sector and the pattern selection (Data Envelopment Analysis) (Ćwikała-Małys & Nowak, 2009). The main advantage is that it does not require the knowledge of a functional relationship when assessing the effect of multiple input variables on output variables. In this way it facilitates the multi-criteria evaluation, and thus is more flexible compared to parametric methods (Ćwikała-Małys & Nowak, 2009).

The DEA method examines the so-called DMUs (Decision Making Unit). The relative productivity of the decision-making unit is determined on the basis

of the results determined by the relationship between input and output variables. The method is based on the determination of the efficiency curve (best practice frontier) determined by the examined units which operate efficiently, and the ones which are below the curve are the inefficient units, and the degree of inefficiency depends on the distance of the unit from the efficiency curve (Nazarko, Komuda, Kuźmicz, Szubzda, & Urban, 2008).

In assessing effectiveness, one should remember about the division of evaluation areas with regards to the technical aspect, allocation and costs (Ćwikła-Małys & Nowak, 2009). What is assumed as a measure of technical efficiency is the relationship between the productivity of a given object and the maximum productivity that can be achieved with the same technological conditions. Technical efficiency can be aimed at expenditure or effects. The model focused on expenditure indicates how inefficient units can increase their efficiency by reducing expenditure. However, the DEA models focused on results give the answer to the question: what level of performance would an effective unit achieve if it used all the available expenditure? That is, how one can improve the results with the given expenditure (Ćwikła-Małys & Nowak, 2009).

Allocative efficiency can be measured when one has the information on expenditure price or results. This measure provides information about whether the used combination of expenditure and results is appropriate from an economic point of view. Cost efficiency is measured by comparing the actual costs incurred with the smallest cost with which given results can be achieved (based on the border function of costs) (Nazarko et al., 2008).

DEA models may differ when it comes to the approach to the scale effect. In the DEA model which assumes the constant economies of scale (model CCR – the initials of the names of the creators: Charnes, Cooper, and Rhodes), the relative efficiency of the unit is the same in the case of the orientation towards expenditures and results (effects). The model assuming variable economies of scale (BCC) adopts three basic assumptions. Firstly, all the observed production plans are possible. Secondly, if the production plan is possible, then each plan which uses more expenditure and allows for achieving smaller results is also possible. Thirdly, the convex combination of existing plans is possible. The units are compared to the existing production plans or their convex combinations (Ćwikła-Małys & Nowak, 2009).

When analysing the effectiveness of Special Economic Zones, to bypass the benefits or disadvantages of scale, we will use the basic DEA model assuming constant economies of scale. It is worth noting here that the unit which is effective with constant economies of scale is also effective in the variable economies of scale. The DEA model assuming constant economies of scale rules out the possibility of the analysis oriented towards expenditures or results (Guzik, 2009).

The CCR model is described as follows:

$$Ej = \frac{\sum_{r=1}^R u_r y_{rj}}{\sum_{n=1}^N v_n x_{nj}},$$

assuming:

$$\frac{\sum_{r=1}^R u_r y_{rj}}{\sum_{n=1}^N v_n x_{nj}} \leq 1,$$

$$u_r \geq 0, v_n \geq 0,$$

where:

Ej – object efficiency j ($j = 1, \dots, n$),

y_{rj} – results stream,

u_r – weight corresponding to specific outputs ($r = 1, \dots, R$),

x_{nj} – expenditure stream,

v_n – weight corresponding to specific inputs ($n = 1, \dots, N$).

The DEA method does not require prior knowledge of weights. For each unit the solution to the issue of linear programming is established where the relation between effects/expenditure is maximized under the given constraints. In this way, the strong sides of the unit are exposed (Nazarko et al., 2008).

To check the effectiveness of fourteen economic zones (DMU) the effects were listed with one another, namely: permits issued, new jobs and capital expenditures incurred by entrepreneurs in the zones. Expenditures include: spending on infrastructure and promotion, tax exemptions of companies managing the zones and the area in hectares.

Table 8 shows that 5 among 14 Special Economic Zones are effective. These include the Kamiennogórska Zone, which in 2014 was characterized by almost the lowest number of the permits issued (7), but at the same time the lowest amount was spent on infrastructure (300 thousand PLN), which represented in 2014 only 0.1% of all expenditure on infrastructure by SEZ. Another effective zone is the Legnicka Zone. In this zone, the percentage of land development is the lowest (26.6%), but in 2014 companies operating within it ranked the third place in terms of capital expenditure (almost 832 million PLN), while the high growth rate in terms of new jobs and permits was recorded (compared to 2013), and infrastructure spending remained at a low level.

Table 8 *Effectiveness of Special Economic Zones in Poland in 2014*

Zone name	Effectiveness	Ranking
Kamiennogórska	1.000	1
Katowicka	0.289	14
Kostrzyńsko-Słubicka	0.558	9
Krakowska	0.924	7
Legnicka	1.000	1
Łódzka	0.972	6
Mielecka	0.700	8
Pomorska	0.343	13
Słupska	0.417	11
Starachowicka	0.392	12
Suwalska	1.000	1
Tarnobrzaska	0.513	10
Wałbrzyska	1.000	1
Warmińsko-Mazurska	1.000	1

The third effective zone is the Suwalska Zone which in terms of the area is the smallest, but in 2014 was characterized by the highest growth rate in terms of capital expenditure (+ 415% compared to the previous year). In this zone spending on infrastructure was minimal, and the increased number of investors could have been associated with promotional costs. The fourth effective zone is the zone of Wałbrzych, which in turn is the largest operating zone in Poland, and thus recorded the highest value in terms of the number of permits issued and capital expenditures, while spending on infrastructure in the zone of Wałbrzych was lower than in the other three zones. The last effective zone is the zone of Warmia-Mazury whose area is developed in almost 70% and yet the dynamics of the permits issued in 2014 compared to 2013 was high and exceeded 90%. In this zone in 2014 the smallest amount was spent on promotion.

The three least effective zones are the Pomorska, Katowicka and Starachowicka Zones. The Pomorska Zone was characterized by high promotional spending and tax exemption, and in terms of new jobs and permits issued was behind the smaller zones. The Katowicka Zone is the second largest zone but it is the only area that had the negative value of the acquired investment expenditure due to the withdrawal of the permit of a large investor, and, at the same time, in this zone infrastructure expenditure was the largest. The Starachowicka Zone is a zone in which the smallest number of permits was issued in 2014, and the number of new jobs was lower only in the Słupska Zone which is the smallest zone. In contrast, the companies man-

aging the zone in 2014 benefited from almost the highest tax exemptions (only the Katowicka Zone received a higher result in this area) in the amount of 1.62 million, which accounts to almost 12% of all tax exemptions from which companies managing the zones benefited in 2014.

Conclusions

The aim of the study was to select the pattern of the zone which operating under the same market conditions can maintain the correct ratio of results to expenditure. As a result of the study 5 zones which in 2014 can be described as effective zones were selected. These zones include the Kamieniogórska, Legnicka, Suwalska, Wałbrzyska and Warmińsko-Mazurska Zones. The Pomorska, Katowicka and Starachowicka Zones were among the areas that are the farthest from the selected patterns. Considering the location of the zone and the result of the analysis one can see that the location of the zone does not affect the degree of efficiency. For example, the Katowicka Zone is located in the south in the Śląskie, Małopolskie and Opolskie voivodeships which are characterized by highly developed socio-economic infrastructure and the availability of qualified personnel, turned out to be the least effective zone and the Suwalska Zone functioning mainly in the Podlaskie in 2014 was the effective zone. Therefore, one can conclude that the effectiveness of the unit is to a large extent about the wise management of available resources.

The DEA analysis indicated results possible to achieve, saving areas and the factors that have the greatest impact on the effectiveness of the zones. These results, although limited in scope, because they apply only to year 2014, show that the Special Economic Zones are diverse in terms of their efficiency of operation. They indicate that the expenditures incurred by the specific zones do not translate into the acquisition of new entrepreneurs, and consequently, the creation of new jobs and investments.

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Workaholism and work engagement: Differences and mutual relationships

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Abstract

The main purpose of the study was to analyse the relationship between workaholism and work engagement which, in the light of current research, constitute two separate constructs, although they are in some way related to each other. In addition, their relationship with demographic data, such as, age, gender, type of position was examined.

The cross-sectional study, with the use of questionnaire methods (the Polish version of UWES and DUWAS), included in its scope 967 economically active people from Polish organizations, representing various professions.

The analysis of relationships (with the use of the method of structural equation modelling) of workaholism and work engagement showed – in spite of weak association through absorption – the separate nature of the constructs studied. Regarding the relationship with demographic factors, women obtained higher scores in all dimensions of workaholism and work engagement; older workers showed greater engagement and greater compulsion to work than younger workers; managers, when compared with non-managers, are characterized by a higher level of excessive work.

The results showed that workaholism and work engagement are two distinct phenomena, although they are related to each other to a little extent. The obtained differences in the examined constructs in terms of demographic factors provide a starting point for further research and analysis of their specific characteristics and causes.

Paper type: research article

Keywords: workaholism, work engagement, absorption, gender, structural equation modelling

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Introduction

Although workaholism and work engagement have been the subject of interest of work and organization psychologists and management theorists for more than half a century, the nature of these phenomena, especially work addiction, is still under debate. The biggest point of contention is the treatment of workaholism as a positive phenomenon, which according to some researchers is an unnecessary confusion of concepts (e.g. Schaufeli, Shimazu, & Taris, 2009). However, one may wonder whether the lack of consensus on the nature of work addiction does reflect the facts and whether workaholism contains some positive elements, which are in line with the phenomenon of work engagement. This study will, among others, attempt to answer this question.

In Poland, research on workaholism and work engagement as separate constructs has been conducted for more or less a decade (e.g. Wojdyło, 2004, 2005, 2006; Golińska, 2005, 2006, 2008; Hornowska & Paluchowski, 2007; Szabowska-Walaszczyk, Zawadzka, & Wojtaś, 2011, Derbis & Baka, 2011). However, compared with global achievements, the number of studies on this subject is still small, and it seems that more such studies are very necessary (see Dudek, 2008). Therefore, this study is also supposed to enrich the knowledge on workaholism and work commitment with research conducted among Polish workers, with particular emphasis on the differences between men and women, different age groups and people working in managerial and non-managerial positions.

With regards to the main purpose of this study – the analysis of the relationship of workaholism with work engagement, based on the assumptions and the results of other studies (Schaufeli et al. 2009; Burke & Fiskebaum 2009; Gorgievski, Bakker, & Schaufeli, 2010), the author formed a hypothesis that as phenomena with different consequences for the individual (negative vs. positive) they constitute two separate constructs which are also different in structure.

The differences in the level of work engagement and workaholism in terms of demographic factors have not been deeply analysed so far, even though they seem to be partly justified. Regarding workaholism, researchers and practitioners demonstrate its processual character, variety of reasons, or occupational risk, which may be reflected in different levels of dependence on work among men and women, different age classes or types of positions. The extensive research by Schaufeli and Bakker (2003) on samples from several countries has shown significant, although not very large, differences relating to gender in the level of absorption, dedication and vigour, as well as in different age groups. Therefore, it is assumed that there are differences in the dimensions of workaholism and work engagement between: men and women, different age groups, and type of position (managerial and non-managerial).

1. Workaholism and work engagement – explanation of concepts

Researchers emphasize the complexity of the phenomenon of workaholism, which is reflected in the multiplicity of definitions, typology of workaholics, or the number and type of dimensions that constitute work addiction. Regarding term “workaholism,” most authors cite the thesis by Oates from 1971 in which this concept appeared for the first time, although term “workaholic” had already been used by the researcher as early as in 1968 (Oates, 1968, 1971). Since that time slowly but steadily the interest in this phenomenon has been growing, both among practitioners (i.e. psychotherapists) and theorists – especially work and organization psychologists. Researchers have been trying to determine, among other things, what “workaholism” is and – despite the obvious differences between specific definitions – one can find some similarities in the existing concepts.

Firstly, a person addicted to work devotes much more time to it than their colleagues, usually staying after hours (when others have already left), often taking work home on the weekend or giving up on leisure time during holidays and leave (see Oates, 1968; Machlowitz, 1980; McMillan & O’Driscoll, 2006). The second determinant of workaholism, indicated by most authors, is the difficult-to-control compulsion to work, underlying obsessive-compulsive behaviours (see Oates, 1968; Machlowitz, 1980; Schaufeli et al., 2009). Non-workaholics who work more than the expected norm, do their job either out of necessity (e.g. financial), more or less justified fear of dismissal, need for promotion or as a result of the so-called intrinsic motivation – *I work a lot because I like what I do*. In addition, non-workaholics can separate the professional sphere from the private sphere, not thinking and not talking about work constantly, and they know how to relax during leisure time (if they have no other problems). Their work does not have negative influence on their immediate family, or the functioning of their family or relationship, which is quite significant also in the case of other addictions. The authors, for the purpose of this study, adopted a definition of workaholism by Schaufeli et al. (2009) which takes into account its above two manifestations, i.e. working after hours and compulsion to work.

The biggest point of contention in the definition of workaholism is a trend to its extreme assessment and treatment of the phenomenon as either only positive or only negative. Some researchers and theorists believe that workaholics experience pleasure, joy and fulfilment while performing their duties (e.g. Machlowitz, 1980; McMillan & O’Driscoll 2006; Ng, Sorensen, & Feldman, 2007) and, simultaneously, are seen as good and dedicated employees. Others (e.g. Killinger, 2007; Schaufeli et al., 2009; Fassel, 1990) claim that workaholism is a strongly negative phenomenon (and even an addiction which should be treated) and is mainly related to undesirable indicators of mental well-being. Unfortunately, previous research results due to

the lack of consensus and explicitness do not resolve this issue. Some of them confirm the relationship of workaholism with reduced feeling of happiness and satisfaction with life or negative perception of one's health (del Libano, Lorens, Salanova, & Schaufeli, 2010; Burke, 1999; Shimazu, Schaufeli, & Taris, 2010). Different conclusions were formulated by Golińska (2008) who demonstrated that workaholics are more satisfied with their lives, experience fewer somatic complaints and had been in a better mood than non-workaholics in the last week before the survey. The authors of this study lean towards the thesis that both groups of researchers may be right. Each object of addiction is a source of positive reinforcement (otherwise it would not have such a strong causative power), and when an individual is under the influence of (drug, gambling, sex, food, Internet, etc.) he or she feels pleasure. Problems arise when the object of addiction "disappears" – an individual then experiences negative emotions, in the case of workaholism, such as, anxiety, irritability, guilt because of professional inactivity etc. (see Ng et al., 2007). What is also important is the dynamics of the phenomenon itself – workaholism in the initial phase³ may look different than in subsequent periods when there are also family and health problems which also impact the well-being of an addict. Unfortunately, according to the Authors, so far no longitudinal studies confirming the phasic nature of workaholism have been carried out, although in this case you can refer to other and better-studied addictions or descriptions by therapists involved in the treatment of workaholics (e.g. Killinger, 2007). The researchers of this phenomenon also indicate the types of workaholics who are differentiated by the level of job satisfaction (see Spence & Robbins, 1992), or the type of the consequences connected with addiction to work – positive vs. negative ones (e.g. Scott, Moore, & Miceli, 1997).

Additionally, what undoubtedly makes it difficult to classify workaholism as either a positive or negative phenomenon is the fact that among all the addictions it meets with the greatest understanding and social acceptance. In some circles "to be addicted to work" is actually a positive connotation, so one can also encounter words "positive workaholism." Schaufeli et al. (2009) in order to avoid unnecessary confusion of concepts (see typology by Scott et al., 1997 or Spence & Robbins, 1992) propose the introduction of separate term "work engagement" which refers to employees working above the norm, but drawing satisfaction, strength and joy from work and experiencing a kind of *flow* defined by Csikszentmihalyi (2005). They define work commitment as a positive state of mind associated with work. It is characterized by vigour, absorption and dedication. Vigour

³ Beginner workaholics may be happy and satisfied with work which can translate into efficiency, which also meets with general approval both at work and through promotions and higher salary – in the family and among friends. All these positive stimuli motivate the person to work harder and, with the occurrence of additional, favourable factors and circumstances (personality traits, educational environment, a specific situation), intrinsic positive motivation to work slowly turns into a compulsion that is far from being a positive phenomenon.

means a high level of energy, effort and willingness to take effort and continuation of work despite the mounting obstacles and problems. Absorption refers to the state of full concentration on the task being performed, “losing oneself in” its implementation. However, dedication is characterized by “getting involved in work and experiencing a sense of purpose, enthusiasm, inspiration, pride and challenge” (Schaufeli et al., 2009, p. 324). This way of understanding work engagement was adopted in this study.

Both workaholics and those engaged in their jobs work equally hard. However, the latter are motivated by the so-called intrinsic motivation and those addicted to work by compulsion which is out of their control. In their research Schaufeli et al. (2009) showed that workaholism is a separate construct in relation to work engagement, which will be the subject of analysis of this study. It should be noted that studies on this construct are increasingly becoming part of the developing trend of positive psychology, as a counterweight to the research on pathology, dysfunction, mental illness and behavioural disorders.

2. Research methodology

Sample description

The study conducted in 2013–2014 involved by 967 respondents, 31% of men and 67% of women (2% did not indicate their gender) working in different occupations and at different positions in Polish organizations. The largest group were teachers (27.4%), followed by office workers – secretaries, HR workers, clerks, specialists, accountants (13.9%), medical representatives (7.1%) and managers of HR and sales departments, directors and CEOs (9.3%). Most respondents were from 31 to 40 years of age (32.7%), followed by 21–30 years (25.4%) and 41–50 (23.2%). The smallest group were people from 51 to 60 years of age (14.9%) and over 60 (3.3%). Managerial positions were occupied by 19.4% of the sample.

Research methods

The study used two questionnaires in the shortened version, each by Schaufeli and the team – to study workaholism (DUWAS – Dutch Work Addiction Scale) and work engagement (UEWS – Utrecht Work Engagement Scale). The first of them was subjected to adaptation by Kożuszniak, Dyląg, and Jaworek (2014). It consists of two subscales: WE (working excessively) and WC (working compulsively). Each of them is part of another questionnaire: EC – WorkBAT by Spence and Robbins

(1992), and WC – WART by Robinson (1999).⁴ However, UWES in the Polish version is on the website of the author and in such a form, after prior comparison with the English version, was used in the research.⁵ The shortened version of the workaholism scale consists of 10 statements, five for each dimension to which the person tested has to refer to one of four ways: 1 – *(almost) never*, 4 – *(almost) always*. The shortened version of the work engagement survey includes 9 statements, three for each dimension, which the respondent is asked to answer in the seven-point scale from 0 – *never*, to 7 – *always/every day*. The questionnaire also included the section with personal details containing questions about gender, age, work experience, occupation and position (managerial – non-managerial). Psychometric properties of individual questionnaires are in Table 1.

Table 1 *Psychometric properties of questionnaires: DUWAS and UWES*

Questionnaire	Subscale	α Cronbach	M	SD	Number of statements
DUWAS	Working excessively	.74	2.51	.65	5
	Working compulsively	.77	2.02	.65	5
UWES	Vigour	.80	3.92	1.18	3
	Dedication	.78	4.30	1.20	3
	Absorption	.72	3.85	1.21	3

3. Results

Relationship of workaholism with work engagement

The correlation analysis showed quite a clear relationship between the dimensions of the tested constructs, separately: workaholism and work engagement ($r = .61-.74$). In addition, there was a moderate level of correlation between absorption, excessive work and compulsive work, weak between dedication and the two dimensions of workaholism, and very weak between vigour and compulsive work (see Table 2).

⁴ The following questionnaires to study workaholism are used in Poland: in the adaptation by Wojdyło (2005) – WART, constructed by Golińska (2005) – SZAP (Skala do Badania Zaabsorbowania Pracą/Scale of Commitment to Work), and KOP (Kwestionariusz Obciążenia Pracą/Work Load Questionnaire) by Hornowska and Paluchowski (2007).

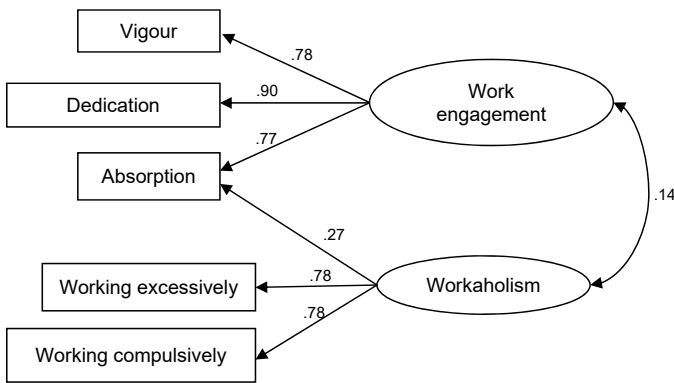
⁵ Full, 17-statement, Polish version of scale UWES has been adapted by Szabowska-Walaszczyk et al. (2011).

Table 2 *Correlations between specific subscales*

	1	2	3	4
Vigour	–			
Dedication	.713**	–		
Absorption	.633**	.738**	–	
Working excessively	.039	.105**	.286**	–
Working compulsively	.066*	.118**	.298**	.609**

* $p < .05$; ** $p < .01$.

In order to verify the hypothesis about the distinct nature of the constructs studied – workaholism and work engagement – structural equation modelling (SEM) using module AMOS 6.0 of statistical package SPSS 14 was conducted.



Affinity values: CMIN/df = 1.87, $p = .132$; GFI = .998, AGFI = .998, RMSEA = .030, NFI = .997, CFI = .999.

Figure 1. *The relationship between workaholism and work engagement – structural equation modelling (SEM).*

The analysis confirmed the hypothesis about the distinct nature of phenomena, such as workaholism and work engagement, though there is a weak relationship between them ($r = .14$). It should be emphasized that the above model (Figure 1) achieved perfect affinity values (Arbuckle, 2006). The figure description contains more detail.

Workaholism and work engagement vs. demographic factors

In order to verify the differences in the various dimensions of workaholism and work engagement regarding gender, *t*-Student tests were conducted for independent samples. The analyses showed that women compared to men are more preoccupied with their work [$t(942) = -4.97; p < .001$], are devoted to a larger extent [$t(946) = -3.44; p = .001$] and manifest higher energy levels [$t(945) = 3.11; p = .002$], while demonstrating a higher level both in excessive work [$t(941) = -2.94; p = .003$] and compulsive work [$t(944) = -2.18; p = .029$].

If one analyses the discrepancies between managerial and non-managerial positions, the only difference observed is the dimension of “excessive work” – people working in managerial positions are more likely to work above the norm than non-managers [$t(945) = 4.0; p < .001$].

Table 3 *Significance of workaholism and work engagement in different age groups (ANOVA)*

	21–30 (<i>n</i> = 246)	31–40 (<i>n</i> = 316)	41–50 (<i>n</i> = 224)	51–60 (<i>n</i> = 144)	Over 60 (<i>n</i> = 32)	F	<i>p</i>
Vigour	3.85	3.93	3.97	3.89	4.05	.432	ns
Dedication	4.11	4.32	4.43	4.32	4.5	2.440	.045
Absorption	3.73	3.92	3.91	3.79	3.87	1.061	ns
Working excessively	2.41	2.54	2.61	2.48	2.43	3.075	.016
Working compulsively	1.83	2.00	2.15	2.12	2.17	9.534	< .001

No statistically significant differences between different age groups in terms of vigour and absorption were noted. In the case of dedication, the lowest level was declared by workers between 21 and 30 years of age, and the highest – over 60 years of age. Similar results were obtained in the case of compulsive work. Regarding the dimension of excessive work, the lowest results were again obtained by the youngest people, and the highest – within the range of 31–40 years of age. For details, see Table 3.

Discussion and conclusions

The hypothesis about the distinct nature of workaholism and work engagement as two different constructs was confirmed, although one of the dimensions – absorption, ascribed to work engagement, is also associated with workaholism. The results obtained are very similar to the results of research by Schaufeli, Taris, and Rhenen

(2008), which also reported the relationship of absorption with addiction to work but, in contrast to this study, the opposite, although weak, correlation of workaholism with work engagement was observed. Schaufeli et al. (2008) suggest that the tested constructs may overlap in terms of preoccupation with work, while stressing the diversity of motives underlying (see: Introduction). Perhaps absorption to some extent influences the attractiveness of work addiction. Full concentration on the task and being “here and now” makes a person not think at the moment about their problems and issues that are uncomfortable and cause psychological discomfort. At the same time, complete focus on the task has a positive effect on its implementation, thereby providing additional reinforcement. The relationship between absorption with harmonious and obsessive passion, terms conceptually similar to engagement and workaholism, was also achieved in research by Ho, Wong, and Lee (2011) and Stoeber, Childs, Hayward, and Feast (2011).

As for the overall relationship of the surveyed constructs, Burke and Fiskensbaum (2009) also observed a weak relationship of “work with passion,” equivalent to work commitment, work addition, or workaholism, in all three tested samples: managers from Canada, psychologists from Australia, and journalists from Norway. The complexity of the relationship of the constructs analysed is showed by the research by Gorgievski et al. (2010), which noted, among others, a weak relationship of one of the dimensions of workaholism – excessive work with work engagement, and a stronger relationship of excessive work than work engagement with the declared innovation in both full-time workers and the self-employed; at the same time excessive work was strongly associated with compulsive work.

As for the demographic differences with respect to the tested constructs, in all of the cases where they were present they were not large and did not exceed one standard deviation. In this study, women received slightly higher scores in all dimensions of work engagement and workaholism. In studies by Schaufeli and Bakker (2003) on the validation of the UWES questionnaire, men showed higher levels of absorption, dedication and vigour. Perhaps the explanation for this difference lies in the adverse social-economic factors in Poland – still high unemployment (and higher among women) and greater pressure (insufficiently high salary of a spouse/partner) for a woman to take paid work and, at the same time, more difficult access to work at higher and more respected social positions (see Jaworek & Dyląg, 2015). Thus, women who have a job value it more and to a greater extent devote to it, which increases the likelihood of workaholism. It should be stressed that there are few studies that put a special emphasis on gender differences in relation to workaholism, and it seems that work addiction may take a different form in women and men, as well as have a different source.⁶

⁶ The research by Golińska (2008) found a slightly different impact of personality variables in explaining workaholism among men and women.

As for the discrepancy in the level of constructs examined in terms of their position, it is only in the case of excessive work that one can observe a statistically significant difference – managers work more and are more often in a hurry than non-managers. Taking into account the characteristics of working at a managerial position, this result is hardly surprising. What is somewhat surprising is the lack of differences in the level of compulsive work, as workaholism seems to be more closely associated with managers than regular employees.

In the case age differences, one can notice some relationships. The lowest level of dedication and the two dimensions of workaholism of all ages are characteristic of the youngest workers, and the highest level of dedication and compulsive work is manifested by those at the oldest age. There might have been some selection in this case. The closer to the retirement age, the more people, if only they have such an opportunity, make use of benefits or early retirement. Thus, among workers over 60 years of age there are more people who cannot imagine life without work (working compulsively), and those for whom it is of great importance and are willing to devote a lot to it. The youngest workers, however, are at the stage of induction to work and getting familiar with it. In this group neither compulsion nor attachment to the place of work had a chance to develop. It seems that workaholism, like any addiction, takes time to develop (see Killinger, 2007) and perhaps this also applies to work engagement. Of course, there may be many different reasons for this. Therefore, further research in this direction is recommended.

In conclusion, this study showed the distinct nature of the constructs examined, i.e. workaholism and work engagement. However, there appeared a relationship between them, which, according to the authors, should be further explored in order to better understand these phenomena. The results also showed some differences in the level of demographic dimensions of the studied constructs. The data obtained should be verified and explained in the context of other variables (e.g. cultural specificity). The results, due to the cross-sectional nature of the research and the resulting limitations, should be treated more as a starting point for further research, particularly longitudinal research, as it seems that only thanks to this kind of research one will be able to know the exact nature of workaholism, its sources, causes, the dynamics of development, typology etc.

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Management problems in the context of conceptual transformation of human capital

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Abstract

The article discusses the features of the transformation of the concept of human capital in the context of modern ideas about the development of socio-economic relations. The attention is paid to significant changes in the nature of human capital, which are influenced its further intellectualization and creativity. It also analyses the problems of human capital from the position of further perspective of alienation overcoming what at one time wrote Marx. It analyses the social ideas of Toffler in the context of opposition of three waves of civilization in modern Ukraine. Results of the study of the essence of human capital give reason to believe: the role of managing the process of its development is important.

Paper type: conceptual article

Keywords: alienation, cognitariat, consumetariat, human capital, intellect, leadership, management

Introduction

Modern global world of information has become very difficult due to the colossal growth of production, means of communication and opportunities for consumption of growing mass of goods and services. Obviously, the world will continue to become even more difficult.

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The task of scientists and politicians – intellectually understand and comprehend what is happening in the world, thoroughly analyse the nature of the changes and respond to them on time. Such efforts and evaluation of economic and political changes have occurred repeatedly in history. Wherein scientific predictions had different levels of reasonableness and were perceived differently by society. This can be explained in particular by speed and scale of change. A number of American and Western European scientists responded properly to changes that occurred in the Western world in the 1960s–1970s, as a result emerged and got a rapid development the socio-futurological concepts and models of human development. Scientific pluralism contributed to the identification of different versions of the future society “post-capitalist” by Dahrendorf (1975), “post-industrial” by Bell (1973), “post-civilizational” by Boulding (1978), “new industrial” by Galbraith (1967), “industrial in a phase of maturity” by Aron (1967), “advanced industrial” by Marcuse (1967), “super-industrial” by Toffler (1980), “technotronic” by Brzezinsky (1970), and so on. The authors of these concepts were guided by the common methodological orientations, considering that the reindustrialization is necessary, that is such industrialization, in which science and technology will be the humanist and will not destroy the natural in man and the environment. Moreover, they believed that science and technology in the new conditions will promote universal human values and will secure mankind on planet Earth.

Enough thoroughly and carefully Western scholars and politicians approached to the evaluation of role and importance of human capital – the essential component of spiritual and economic development of society. The author of the concept of human capital (1961) is considered Schultz, whose ideas in terms of economics further developed Becker. To the nature and prospects of development of human capital studies at different times turned Kuznets, Denison and others (Becker, 1964, 1994; Flamholtz, 1985; Mann, 1965; Schultz, 1971).

Note that in addition to research prospects of socio-economic development and human capital development issues also the attention was paid to the problems of production, management and leadership. It is the search for innovations in technology and technology for industrial production, the rapid development of information and communication tools, introducing a variety of support services and transport services that have intensified the need for a new type of managers – managers with leadership qualities. Among the successful researches of the problem of management and leadership we can specify works of Mintzberg (2010), Siebens (2007), Covey (1999), Schein (1992), Snyder (Snyder, Dowd, & Houghton, 1994), Willner (1984), Kohut (1991), and other.

According to the authors, the problem of human capital management in the context of its development, and especially the problem of forming leadership skills, given the challenges which today arose to the international community, requires further thorough scientific analysis.

Thus, the purpose of this study is a synthesis of ideas about human capital in historical and philosophical perspective and to define those components of human capital that could be perspective for the formation of the personality of the leader.

The study used an analytical method which allowed to isolate the main problems in the development and management of human capital. The use of comparative-historical method made it possible to trace the origins and formation of the concept of human capital in the context of ideological stereotypes and values that define features of its perception in modern society compared to current ideas.

1. The concept of “work,” “labour force” and “human capital”

The concept of “human capital” has its own history, although it hasn’t been always determined exactly in this way. Human capital is a universal concept, which covers a set of specific human properties that are required to perform a social role. Undoubtedly, these properties do not appear out of nowhere. They appear as a result of a number of factors, but primarily as the development of appropriate individual inclinations in the formation and education of his personality.

At the time, working on philosophical and economic works of prominent thinkers of the 17th and 19th centuries, Marx and Engels wrote about the importance of human labour, that we can see in their works of 1840s–1850s. In 1844, Marx (1974, pp. 113–114) stressed that labour is graded, split and therefore not free, it is the source of the disastrous of private property and alienated from human existence. Here he notes that Fourier and Saint-Simon differently defined their priorities about the meaning of work. If Fourier favoured agricultural labour on earth, then Saint-Simon wrote about the benefits of industrial work which improves the living conditions of workers. Engels also applied the concept of work when he wrote that the increase of the proletariat amount, the class society, “which lives solely by their work,” (1974, p. 355) due to the division of labour, enriched capitalists. Also in this period, the founders of Marxism widely used the concept of “cost of labour,” “labour price,” “labour sale.” But since the late 1850s, when Marx began to develop the theory of surplus value, he determined that the worker sells to the capitalist not his work but his labour force. Therefore, in his subsequent writings, Marx and Engels began to use the term “labour costs,” “price of labour,” “sale of labour.”

Obviously, the concept of labour is significantly different from the concept of work, especially if we consider their meaning in the context of capitalist relations. Marx focused Owen’s thought that “since the general introduction of non-living mechanisms in the British manufacturing the people, with few exceptions are regarded as a secondary and less important machine, and much more attention is paid to the improvement of raw materials – wood and metal than to the improvement of body and spirit” (Marx, 1980b, p. 223). From this judgment Marx makes

a perspective conclusion, that economy of work time is identical to the increase of leisure time that promotes the full development of the individual. “In terms of the direct production process, saving of time can be regarded as the production of the main capital, and what is more this main capital is the man itself” (Marx, 1980b, p. 223). However, the free time puts a person to a choice: whether to use it as an entertainment or as an opportunity for a more sublime activity for the development of its human capital. For a man who is being formed the production process is a school of discipline, said Marx and speaking about a man who has already learned the knowledge accumulated by society, “it is an application of (knowledge), experimental science, materially creative and substantively embodied science” (Marx, 1980b, p. 224).

However, as proves the development of capitalism, the value of man as the bearer of human labour generally was limited by all sorts of obstacles on the way of getting first of all a comprehensive education. That is why Engels said: “(...) we see that the development of the proletariat in nearly all countries is violently suppressed by the propertied classes” (1974, p. 358). Marx also emphasized that “(...) capitalism, which tends to *increase immensely productive forces, however, makes it one-sided, limits, etc. the main productive force which is the man himself*” (1980a, p. 407). Thus, referring to the works of Marx and Engels allows us to clearly see that they define the human not only as the capital’s component but also as the main productive force. And therefore the contribution to the full development of the individual is the contribution to the development of human capital. Thus, the overall human capital, like any other capital is a person’s ability to make a profit.

In the new historical conditions, as we have noted above, deepening of the essence of the concept of human capital was further developed. Milken (b. 1946) – American financier and philanthropist used this concept, summarizing the business innovations of the Italian entrepreneur Merloni. Merloni – founder of the famous company manufacturing electrical home appliances Indesit on the verge of 1980s–1990s implemented an effective system of parts usage for production and finished products, minimizing its number in the stocks. Using computers and highly intellectual technologies in the production and in the accelerating the delivery of goods to the consumer, he has achieved significant savings in resources, which gave him a reason to believe that intellectual capital replaces expensive equipment. In this way, human capital has replaced money capital. Here we see attempts to emphasize innovation and intellectual components of human capital. Toffler and Toffler (1995, p. 55) in the book *Creating a new civilization. Politics of the Third Wave* also noted that knowledge reduces the need for raw materials, labour, time, space and other resources, becoming the main resource of the modern economy. Moreover, the “proletariat” is more and more replaced by “cognitariat” and so now it is in the minority.

2. The essence of human capital

At the heart of the human capital of income generation are innate human abilities (what philosophers call its essence), education and acquired competences. Today it is clear that not only modern production, but computerized information service sector needs more intellectually trained workers. Thus, high-tech manager is a new profession that is needed in the tourism sector, hotel business, supermarket and more. In turn, Bard and Söderqvist (2004, p. 9) pay attention to the significant changes taking place in consumption sphere, and introduced the concept of “consumetariat,” defining thus the emergence of the new lower consumer class, which replaces proletariat in the new society. Here we see a contradiction, but it can be explained, given that consumetariat is a class that opposite to netocracy – dominating class, according to Bard and Söderqvist.

Reflecting on the essence of human capital, we must admit that initially a person must be educated and formed in accordance with a purpose. This purpose is determined by parents, close environment, social environment, and in some kind global world trends. It is therefore important that education of fully developed personality allows it to adapt easily enough either for own selected professional activity or for the circumstances of surrounding social life that have a strong tendency to change.

The main factors that on the minimal level determine human capital can be considered health, physical strength, professional knowledge and intellectual abilities. From a historical perspective physical strength of personality played a crucial role of human as productive forces in the early stages of human development. Based on the teachings of Marx, this phase coincides with the slave and feudal structure of society. And judging from the basic ideas of the concept of Toffler, this time of *The First Wave* – agricultural stage of social development. There is a fairly clear distinction of social status, as well as a community of people who generate ideas, but does not seek their material embodiment. On this occasion, Plekhanov wrote (1956, p. 615): “Plutarch, referring to the inventions made by Archimedes during the siege of Syracuse by the Romans, considers it necessary to forgive inventor, philosopher certainly ought not to engage in this kind of things, he muses, but Archimedes is justified by the extremeness, in which was located his homeland.” It is interesting, that a number of gauges and instruments in the period of formation of classical mechanics called *philosophical instruments* (accurate scales, thermometers, theodolites, telescopes, microscopes, etc.) (Marx, 1975, p. 477).

At the stage of social development that meets capitalism, human capital is not limited to physical force because some of the workers should have the necessary professional knowledge to manage the machine. Actually, the machine itself is a part of human capital in the form of physical strength spent on its production and in the form of intellectual efforts (the idea, scheme, draft). It made a man an ap-

pendage of machine and paid very few attentions to “the improvement of body and spirit.” More and more there was a division of labour into intellectual and physical, so proletariat was doomed to toil beside machine. This gave reason to Karl Marx argued (1974, p. 53) that proletariat is a man who “lives only in his one-sided, abstract labour.” Hence we speak of alienation as an essential feature of capitalism. Since the overcoming alienation begins, according to Marx, the first stage or the first form of communism.

Note that it is the *first form of communism*, which was later apparently was defined as post-industrial information society or *The Third Wave*, and became the object of meticulous study of a number of philosophers and economists of 1960s–1970s. Marx wrote that communism of the first form “(...) a dual kind: first, the domination of the real property on it is so great that he wants to destroy everything that, everybody in principle of private property cannot own all; he wants to force aside from talent. Direct physical ownership seems to it as the only purpose of life and existence; category of worker is not abolished but extended to all men; the ratio of private property is the attitude of the whole society to the world of things” (Marx, 1974, p. 114). Despite these limitations, this communism has “imagine himself as reintegration or return of man to himself as the destruction of human self-alienation” – said Marx (1974, p. 116).

Is this communism was held in its first form? Apparently so. Just look at the society of “universal welfare” in advanced capitalist countries already mentioned of the late 1950s – early 1970s. Mass production of wireless devices, TVs, washing machines, cars, etc., which could buy large segments of the population, engaging in the production and maintenance of masses of men and women (blue and white collar) – all this are the evidence of “rule of the material property.” But we should not forget that it was accompanied by a drop in morale, destruction of family values, sexual revolution, millions hippie, revolutionary actions of French students and so on (Buchanan, 2004). By the way, the theme of leadership at this time was not particularly relevant, since the status of skilled workers was sufficient for a normal life.

Regarding leadership here is the opportunity to spend some historical parallels, referring, for example, observing “human capital” that Ford did in 1910–1920 years. He said (Ford, 2015, p. 134): “we can barely find more than five percent of those who works for hourly pay, who, in addition to the desire to get more money, may take on extra responsibility and the extra work that is essential attributes of a higher official position ... Thus, despite our big labour, the difficulty lies not in identifying people able to move forward, but people who want it.” Actually, here is the explanation: in the relatively calm and stable period of development of society “the vast majority of people want to stay at their place. They want to be led” (Ford, 2015, p. 134). The actual topic of leadership became later, when there was the Great Depression.

Obviously, the ideas of Marx and the essence of his teachings throughout the 19th and 20th centuries became the subject of numerous studies of both the procom-

munist and probourgeois scientists. A theory of communism was perhaps the most controversial of all his philosophical heritage. The experience of totalitarian states that “were building communism” is also revealing. Therefore, Marx (1974, p. 116) concluded that “*communism as the positive abolition of private property – the alienation of man* – and therefore...” the return of man to himself as a social person that is humane, till definite time could be seen as too speculative. No less speculative and therefore not entirely clear till definite time was the judgment that this communism is complete naturalism and humanism that “(...) it is a real solution to the contradiction between man and nature, man and man, the true solution to the contradiction between the existence and substance, between materialization and self-affirmation, between freedom and necessity, between the individual and family” (Marx, 1974, p. 116).

Clearly, there is no such communism yet, but the fact that the movement in this direction exists proves that the current socio-economic situation is undergoing significant changes. So, based on their observations and research Toffler and Toffler (1996) say that today workers who find themselves in superconscious activities produce much more without coercion, and it follows that the performance of their work begins even before they come to the office. For a new generation of supersymbolic leaders, inclined to think faster in terms of systems rather than in terms of separate steps, it will be natural (Toffler & Toffler, 1996). This assumption, in our opinion, quite productive because supersymbolic activity is the image of a modern society in contrast to the significant proportion of alienation inherent in industrial society.

Supersymbolic activity – an activity aimed at identifying of the product with the manufacturer, which is especially noticeable in highly intellectual program materials. This is a manifestation of the same “reintegration,” which wrote Marx (1974, p. 116). In the new socio-economic conditions, the idea of human about his place and role in society changes.

In view of the above, the essence of human capital can be viewed in two ways. On the one hand – a combination of direct workers (proletariat and cognitariat), workers-consumers (consumetariat) and only consumers. On the other hand – is lower levelled managers, mid-level and top-level managers, who organize the global system of production and consumption. Modern human capital is able to organize production, to develop and introduce new technologies, but it has not yet found the capacity to solve current pressing global social problems of mankind. This requires managers with a global outlook, true leaders who have appeared at critical moments in history.

Defining the specific three waves of the historical development of mankind, Toffler has shown that among the main forces representing the agricultural, industrial and postindustrial (information) waves, there is inevitable struggle. In fact, we see it in the last half century.

3. Human capital management

Naturally, in relation to the management human capital has a specific functions and purposes. Their dimension in modern society depends on what level of management tasks need solution. Because of modern global information society requires many managers of local and global level with features that meet the spirit of the time.

The modern system of training and education of personnel for production and maintenance involves in this process many subjects. In particular, the following could be many professional schools, institutes, universities, business schools and more. Recruitment function for such particular purposes perform either directly an institution that requires employees or recruitment agencies, assessment-centers and similar institutions which on the basis of finding out the level of general education, level of professional knowledge, communication skills, through various kinds of tests, etc. concludes regarding the suitability of the applicant and recommend its customers training.

Undoubtedly, a measure of suitability for administrative activity is a practice that as a litmus paper detects managerial potential of manager. Human possibilities as a head are manifested in the process activity and cooperation in a particular group. In this sense, networking, as a creation of the most extensive network of useful contacts and relationships, given the largely subjective approach of its members to offer of candidates, is based on the limited motivation.

Human capital which requires the field of modern management – a special kind of product. After all, we are talking about professionals who have in one way or another to create or implement innovative product. To do this, they must have formed and to some extent the established worldview, based on recognition of and respect for human values. Thus, with the existing system of principles and attitudes, the manager must be prepared to defend them, applying his knowledge and effort.

Any management decision involves the definition of the attitude to the opposition man-thing, purpose-means. Things are made for people with the participation of the people. Therefore, the role which is determined for the producer and consumer, is derived from the philosophy and value system of manager.

The system of the formation of human capital for the management activity has a long tradition as a recognized need. However, there are obvious differences. In established democracies there are reputable schools, including Eton, Oxford, Cambridge (England), Harvard, Princeton, Stanford (USA) where specialists come with a high level of knowledge and state approach to management activities. In totalitarian regimes of Soviet-style training managers also received much attention, but the process was multistage. As a result, the system was receiving a staunch ideological leader dedicated to this system, which it educated.

The situation with human capital management has changed significantly in recent decades, due to the emergence of a number of post-colonial, post-Soviet

and other modes. Some old school administrators either initiated by themselves or adapted to the situation of “privatization” of social wealth and mineral resources and actively involved in the process, abandoning the principles which the system have shaped in them. Young managers who have been involved in managerial training in the new system, or haven’t such, have taken control, without proper public awareness of their role, except the desire to enrich themselves at the expense of society. All this has led to polarization of the property to the huge social tension and open armed confrontation that took and take many lives.

It was the leaders and managers of different levels of post-Soviet and post-colonial regimes, which can generally be called transitional regimes now demoralize the Western system of governance and shake its principles. On the foreign policy level, this is particularly evident in the last decade.

Perhaps the best way would be to consider this situation, given the complex configuration plexus of three waves of civilization, the essence of which has determined Alvin and Hide Toffler in their famous works. They said (Toffler & Toffler, 1996): “In the world, which is divided into three parts, the sector of World First Wave supports agricultural and mineral resources, the sector of the Second Wave provides cheap labour and produce mass production, and rapidly growing sector of the Third Wave uses a new method of domination – the establishment and operation of knowledge.”

Enough tells us the example of internal and external events that are happening in Ukraine. It is important that here coexist simultaneously all three sectors and the relevant community. Living in one place at the same time, but with very different worldviews and values, they objectively are at war with each other. Agro-commodity production and life; metallurgy and chemical industry, high-tech information sector, together with a large part of highly educated professionals in all three sectors, high levels of corruption and a striking disparity in the distribution of public goods – is world in miniature. It is the territory of Ukraine where the struggle of three civilizations is the most obvious.

One cannot mention the problems facing the education system today, as the basis of human capital formation. Marx and Engels repeatedly emphasized that big business is against the fact that workers receive adequate education, and therefore very few pay attention to “the improvement of the body and the spirit” of workers. Thus, the capital of that time tried to make a high-level education inaccessible to ordinary workers. The current capital is also against the spread and support of elite education, said Fukuyama (2016), stressing that the reasons for this are clear. But the main reason, according to him, is that the modern state bureaucracy in Germany, Britain, France, Japan modernize the higher education system in a way that does not benefit the state administration. Clearly, this limits the development of human capital of future senior executives, forming their outlook, life values and view of the world, aimed at the preservation and conservation of the existing system.

This negative trend is contrary to the direction of modern production, which according to Toffler and Toffler (1996) should be regarded as a substantial process than it represented by economists and ideologists of “narrow-minded” economy because now namely knowledge, rather than cheap labour, and the symbols, not the raw materials are implemented into concrete form and increase the value of the product.

Conclusions

Thus, the experience of numerous studies of prospects modern society development once again proves that the historical tradition of critical periods in the history of intellectuals requires not only to put the first and the last questions, but also to give a response. Modern world came into motion in all directions, which had never happened before. Naturally, the large numbers of people are confused, do not understand where the world is moving. There is an erosion of values, to the relevance of which people stop believing.

The only creative and productive force that has always changed and will change the world – is the human capital. Therefore, people who are able to manage the community today should focus on the creation of a social order where each person was given the opportunity to perform their public function, productive use of their human capital.

Scientists who studied the main factors of occurrence and the main features of the new post-industrial world, did a great job, but still remains an urgent need for fundamental generalizations and innovative vision changes. At the same time, they study the realities of the modern world have allowed a deeper understanding of the ideas of Marx referring to the future world, which he called the first form of communism. Undoubtedly, Marx was deep and daring analyst. He understood that one cannot always be in the past, as the world is aimed to the future and creative scientific thought should outpace its movement.

The challenges faced by today’s leaders are much more complex than those that were before, although intellectual and material resources to solve existing problems also increased significantly.

Today the future world has no clear structure of values; it exists as a disembodied wonderful idea. To fill it with meaning and values and to make an appropriate material force can managers who join the vibrations of spiritual principles and realize their potential, correlating their actions with a higher principle, of truth. Humility before the truth, understanding needs and the inevitability of change, responsibility and a keen sense of justice – these leader features will help them in the dissemination and implementation of their ideas, as it has happened in human history.

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The concept of methodology for communication and knowledge management in the organizations

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Abstract

The article analyses selected arguments for a universal methodology for managing communication and knowledge in organizations. On the basis of those conditions the principles of knowledge management are presented. Axioms underlying the logic model consistent with methodology is accompanied by a logic diagram of the other three components: the themes, processes and maintenance.

The postulated methodology of communication and knowledge management in organizations aims to provide a universal, cost-effective and efficient tool to support the daily operations of the company, change management and implementation of strategic objectives. At the same time implementation of the principles of this methodology may allow for an increase in commitment and enhanced performance of potential users of communication processes and knowledge management – by making users prosumers.

Paper type: conceptual article

Keywords: knowledge management, communication management, knowledge management methodology, Prince2, principles, prosumer

Introduction

Efficient management of the organization, effective current work, knowledge necessary to perform the tasks and innovations are based on a common denominator – communication. Communication understood as a flow of information, data and opinions – that make up knowledge and enable its use as well as build the value of

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the organization. Observing the situation in the organization and analysis of the literature shows that there is a need to build methodology that will enable the comprehensive analysis of the processes of communication and knowledge management in organizations. The main task of this methodology is positioning of the selected area of communication and knowledge management among existing links in such a way as to sensitize business people and theorists on the actual complexity of communication and knowledge management. Furthermore, this methodology has the task of constructing open solutions for specific partial problems.²

The postulated communication and knowledge management methodology in the organization is to organize the relationship between the existing tools and concepts, created in response to specific problems relating to communication and knowledge management. As a result, existing solutions in this area are suboptimal, which in itself is not wrong, but the use of individual communication solutions and knowledge management in isolation from other scientific and practical achievements in this respect in certain specific situations can generate serious problems.

The aim of this article is to describe the design of original concept of communication and knowledge management methodology in an organization that supports the analysis, implementation and maintenance of knowledge management processes in an organization. This requires identifying critical subject areas that make up the knowledge management process, and which are necessary to ensure the expected efficiency and effectiveness of the methodology.

The concept of this methodology is based on the logic of the scheme of project management method Prince2 – thus it consists of the four main components allowing for flexible adaptation of this tool to any organization.

1. Communication and knowledge management in a company

Taken considerations require clarification of the concept of communication. Adopted for the purpose of the proposed methodology approach similar to the description of communication by Ollivier (2010, p. 368), who believes that:

Communication can no longer be understood as sending the message that goes out from the sender to reach the recipient. One must understand that the circulation of messages on media determining their content is the subject of ongoing (re)interpretation on the part of users and active recipients-readers. Stereotypes that assume a purely telegraph communi-

² The term open solution means in this context a solution that – as a module in the black-box analysis – is logical and consistent process-compatible with the other arrangements and aspects of knowledge. Black-box-analysis means analysis of complex systems-level modules and their relationships – without getting in all the details of the way of functioning of processes within the same module.

cation, from old work on the transmission of information does not correspond to the current state of science.

From the practical point of view, one of the fundamental errors of communication (and knowledge management) is skipping its context. It is worth appealing to the example of the interpretation of a work of art, “the perception of something as art requires an element whose eye is unable to perceive the atmosphere of theory, knowledge of the history of art: the art world” (Danto, 1964, p. 581). Similarly, the perception of the message or item of knowledge is associated with the person of the recipient, user of this knowledge, which, through their knowledge and experience becomes, the co-creator.

Similar, but more formalized approach to communication, as opposed to the simplified approach by Shannon (2001), can be found in studies by Sundgren (1973) and Langefors (1980). Communication means for them providing information on an object belonging to a specific reality, its selected features, the values of these characteristics, and time – in which the object takes a certain value of the feature. This definition clearly reflects an object in the form of a theoretical object, first factor limiting the effectiveness of communication. In particular, the relationship between the object and the selected feature can mean the experience and existing knowledge on the part of recipient of a message – understood as a basic element of communication and knowledge management.

Referring to this definition one should also emphasize the issue of innovation – understood as the different context of existing processes or products. Increasingly, it is combined with knowledge management (discussion of selected topics is presented, for example, by Zuber [2012]).

The use of knowledge management as part of the development of innovation is not obvious and natural for the majority of the authors of studies in this area. Similarly practitioners involved in innovation neglect, often unconsciously, this aspect. And if they mention the knowledge they limit it only to the same innovations. But gradually emerge analysis on the relationship of these inextricably linked areas. For example, du Plessis (2007) emphasizes the role of knowledge management in building a competitive advantage through the use of knowledge distributed in the organization and creation of good practices of communication and exchange of knowledge. On the other hand, Shani draws attention to the next stage of knowledge management – showing the complexity of knowledge in the organization and accelerating the development through the mechanisms of knowledge management (Shani, Sena, & Olin, 2003).

Quoted complementary positions show two basic aspects of knowledge management in the context of innovation:

- there is no culture of innovation in an organization that does not manage knowledge – then innovations are facade and are rather ephemeral and not the product of strategy and organizational culture,

- sequence: knowledge management – innovation – using mechanisms for knowledge management in innovation allows the optimization of expenditures on innovation, maximizing the use of sources of innovation and commitment to innovation processes of more workers.

In turn, analysis of the organization functioning at the level of strategy, resorting to metaphors organization described by Morgan (1997), shows the universal goal of the organization, i.e. the survival on the market. If one adds to it the concept of value for stakeholders, a classic goal – to generate profit can be generalized to the basic one – creating value for the stakeholders (in particular for shareholders).

It is worth quoting an analysis of Beer, the outcome of which is specified as a great conspiracy of the training (Beer, Finnstrom, & Schrader, 2016). Studies show that among the analysed training programs, only 10% was effective, because most of them neglect organizational changes across the company, focusing on the level of individual employees, or at most teams. The result – in the context of this article – is important mainly in two dimensions:

- direct application – training separated from the corporate changes, in particular the processes of communication and knowledge management, have limited effectiveness,
- generalizations confirming the role of knowledge management methodology – just change the organizational culture and the consistency of ecosystem development processes, employees and entire teams, will substantially improve the effectiveness of the various actions and partial processes.

2. Problems in communication and knowledge management in the organization – critical analysis

The author of the article, dealing with the issues of communication, training and knowledge management in one of the Polish insurance companies has identified a number of problems, which resulted in reducing both the efficiency of the functioning of both the same communication processes, training and knowledge management, as well as the consequences of these actions. In parallel with operational actions began analysing the real causes that affect this state of affairs. Author's observations on the evolution of the organization allow to determine the critical factors that may cause the decreasing effectiveness of existing models of communication in the organization, including:

- progress in management processes resulting in faster and faster changes in processes and products,

- multiplicity of roles played by employees in life, in particular the role of a customer of other companies – and participant of social networking mechanism in the virtual and real-time communication.

Tools used to support communication and knowledge are many, thus the company can enjoy partial solutions, allowing to solve specific problems only in limited functionality span. Thus the tool, which is a strategy or plan for project communication often affects only communication in the project and its business environment – while logic components of this tool can be successfully used in other areas of communication. In turn, the knowledge base is too often seen only as a file repository. Meanwhile, the knowledge base interpreted as a set of processes to ensure the level of knowledge in the organization has completely different assumptions and effectiveness. As a result, creating a plan of action and solving emerging problems in the organization, specialist-practitioner once again could use the technique, which are used or to find own solution, often without sufficient knowledge about possible solutions described in the literature. Part of more informed and experienced communication professionals in organizations refer to industry magazines or tools popular in a given period. However, too often attached to these tools exceeds the limits of rationalism. It should be strongly emphasized that the above statements are not to criticize those involved in communication but a statement of fact. The problem at the business and the theoretical level is not lack, but an excess of solutions for communication and knowledge management in the organization. Each of these tools is to remove the problems, yet in fact generates new – which are often not described in theoretical models or guidelines implementation. Entrepreneurship, in its classic approach assumes the primacy of the operation and effectiveness of the analysis. Hence, often in the action plan does not have time to refer to the theory and in-depth analysis. It puts the efficiency of time and action. Here lies business justification for the creation of a universal methodology of managing communication and knowledge in the organization, which will enable the preservation of time efficiency taking into account the efficiency of communication and knowledge management processes in the organization.

Another factor impeding the optimization of activities within the framework of communication and knowledge management is settling on an annual, quarterly and monthly basis. Therefore, specialists and managers often focus on sub-optimal solutions that give the “best” solution “locally” – according to the measure of the time and area in the organization. In other words, in many cases, in an organization it is easier and safer to accomplish a task or change in one of the departments and show quick success than spend time and energy to build broader coalitions and sharing success through the implementation of fundamental transformation. Especially that the issue of communication and knowledge management is not always a clear priority for management.

Communication and knowledge management is therefore not an end in itself – it is to bring change processes, change in employee behaviour, enable the management of an organization and increase its value (understood not only in financial terms) (see Goldhaber, 1993; Pathirage, Amaratunga, & Haigh 2004). Hence, in addition to the standard view, one should look for inspiration and solutions to problems of communication and knowledge management in the model of Kirkpatrick (Kirkpatrick & Kirkpatrick, 2006) and Bloom's taxonomy (Shelley, 2015).

Organizations and researchers form the descriptions of good practices or patterns of action on communication and knowledge management, for example Alavi (Alavi & Leidner, 1999), Schreiber (2000) and Rubenstein-Montano with the team (2001). Knowledge management is moreover tied directly to the quality as in Bugdol and Jedynak (2015).

Elements of knowledge management also appear as part of the Code of ITIL (Taylor, Lacy, & MacFarlane, 2007, p. 145): "The intention of the use of knowledge management is to ensure that the right information is delivered to the right person or the right place at the right time – to enable conscious decisions. The purpose of knowledge management is to enable organizations to improve the quality of management decision-making by ensuring the availability of reliable and secure information as well as data in the whole cycle of IT provision (Information Technology)."

The theoretical foundation of knowledge management methodology was described, among others by Sure (Sure, Staab, & Studer, 2004) and Chalmeta (Chalmeta & Grangel, 2008), however, these works present the theoretical approach to be implemented, translated into practical objects and terminology. In Poland, the demand for the construction of knowledge management methodology was formulated in 2006 by Żmigrodzki (2006): "(...) this is the moment when the field of knowledge matures and evolves from a dimension of art to crafts. The next stage is associated with a further increase in interest in the field of knowledge. But then one approaches the achievements already critical, and the expectations are more reasonable. In this phase, the discipline of knowledge – if it is positively verified – begins to spread. To be able to spread its assertions, theories, models, approaches, applications, etc. it should be formalized, unified and standardized. One of the tools that provide for the maturation of knowledge management is methodology." According to Żmigrodzki (2006) methodology of knowledge management should include specific areas (Table 1).

This inventory of the cognitive field, as it was described by Żmigrodzki, contains brief entries on the relevant aspects identified in the analysis of literature and implementation of elements of knowledge management in practice. However, the practice shows that this model is not intuitive in the details, it lacks the essential aspects – e.g. the dimension of applications. While definitely a positive conclusion is that the results quoted are in part coincident with the above idea.

Table 1 *The scheme of knowledge management methodology by Żmigrodzki*

Main components	Particular/detailed elements
Assumptions	<ul style="list-style-type: none"> – process approach – subjugation of knowledge management to business processes
Key areas	<ul style="list-style-type: none"> – innovations – knowledge transfer – maintaining knowledge management – didactics – life cycle of a member of an organisation – organisation in knowledge management – measurement and reporting – motivation – assessment of intellectual capital – implementation of knowledge management – particular methodologies
Procedures	<p>Procedures realizing the targets of knowledge management initiatives related to the structure of PMI methodology description presented in PMBOK Guide, divided into several groups including:</p> <ul style="list-style-type: none"> – implementing – executive – control
Techniques and tools	Techniques and tools supporting knowledge management procedures*

* Żmigrodzki points about 200 tools for knowledge management in literature on the subject.

Source: based on Żmigrodzki, 2006.

3. Overview of logical communication and knowledge management methodology in the organization

For a closer concept of communication and knowledge management in the organization methodology one should refer to the example of the evolution of management tools. If one looks at the development of concepts for process analysis and efficiency analysis, it turns out that evolution led from the class account of activity cost (ABC – Activity Based Cost) or Target Costing (TC) (Szychta, 2004), until the Balanced Scorecard (BSC) (Kaplan & Norton, 1995). Each of the previous methods gives a sub-optimal solution by modelling the specific aspect of business activity. While the balanced scorecard provides the tools to describe and manage the four strategic perspectives that allow to describe the whole spectrum of the organization.

By analogy to the above sub-relations tools to more advanced solutions, the idea of using Prince2 (Office of Government Commerce, 2009) originated to build a comparable concept of tools to support the implementation and management of communication and knowledge in the organization. The Prince2 is a project management method functioning in the so-called customer-supplier environment. Its overarching goal is to ensure the continuity of the business case of the project and

focus on the products – which, in particular means to meet the special, appropriately described acceptance criteria. As a result – as opposed to generating methodologies, agile or balanced scorecard – allows to build scalable structures and tools that are focused on specific objectives described by the products and the business levers that can be achieved by providing these products.

Furthermore, the use of advantages of this approach are:

- checked for completeness logical base model of reality – if over the years thousands of projects were carried out using Prince2, this model is logically consistent and covers all areas of activity,
- facilitating familiarizing oneself with the new methodology for people familiar with Prince2,
- at least consistency with Prince2 – to facilitate the implementation of the methodology of knowledge management projects with other basic products.

Prince2 methodology has not previously been considered in the context of communications management and knowledge due to its versatility, providing primarily order the design and implementation of the goals of the organization that uses the products of the project. In particular, the Prince2 does not address the issues of people management tools or specialized issues (for example in the area of knowledge management). Therefore, the proposed methodology of knowledge management is not only the result of changes in terminology, or fitting Prince2 to a specific project, but the idea, based on the widely known and used approach.

Based on the experience gained from the implementation of knowledge bases and elements of knowledge management, as well as Prince2 as a model of reference it was formulated an outline of a proprietary model of knowledge management methodology in four areas: the principles, themes, processes, and maintenance.

The basis of the whole methodology model is the Principles fulfilment of which determines compliance with the methodology of communication and knowledge management.³ Themes are the topics the focus of those implementing or maintaining a business management system communication and knowledge management must remain, indicating the tasks and important aspects of the life cycle of the business system for communication and knowledge management in organisations. Processes are tools to control the business system of knowledge management and recognition of dynamic flows in the organization. While Maintaining emphasizes the importance of post-implementation measures – both as a final implementation process, and the general tasks of current operations. These four elements of the methodology are similar to the structure of Prince2.⁴

³ This is a similar solution to Prince2. If the project meets all the principles of Prince2, it is considered to be carried out in accordance with this method.

⁴ The Prince2 method basic elements are: principles, themes, processes and the project environment.

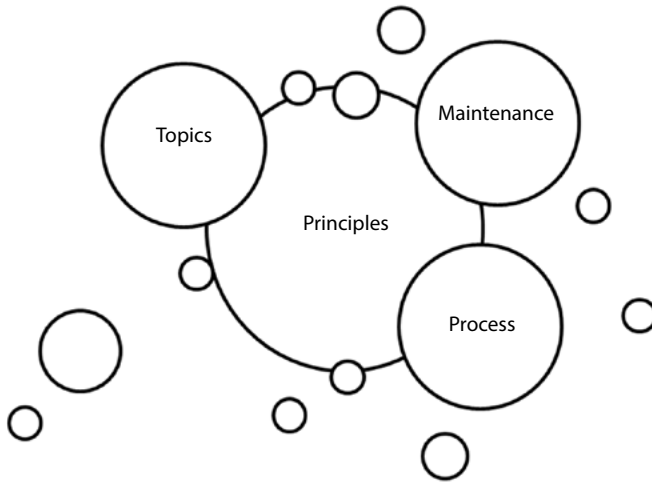


Figure 1. *The scheme of components of communication and knowledge management methodology in the organization.*

The article discussed in more detail only the Principles, that is axioms, the fulfilment of which is equivalent to implementing the methodology. Other components were sketched in their development, description and analysis of interdependencies will be the subject of separate studies.

Snowden has formulated seven principles (*Dave Snowden's 7 Principles of Knowledge Management*, 2009), but from the point of view of the proposed practical approach, they are too specific and are not completely independent of one another (i.e. there is excessive redundancy range). Hence the concept of the proposed methodology contains a different range (Table 2).

Conclusions

In business practice, communication and transfer of knowledge are not always treated as an integral part of management processes – as evidenced by observation of the actual processes and literature (Goldhaber, 1993). For example, it is quite common to send information or a decision on commencement of their term or only the day before that date. As part of the change management communication plans are build up, but they assume only the distribution of messages. In contrast, processing knowledge and management of objections and questions usually is no longer taken into account. This is evidenced, for example, significantly reducing the time to formulate questions or obtaining feedback from all users affected by the change.

Table 2 Elements of communication and knowledge management methodology in the organization

Component	Category name	Category description
Principles	<p>The purpose of knowledge management is to create value for the stakeholders (communication processes and organization)</p> <p>Each user of communication and knowledge management system is the prosumer</p> <p>Knowledge can only be volunteered, it cannot be conscripted (Dave Snowden's..., 2009)</p> <p>The author/editor is responsible for manufacturing, distribution message and converting it into knowledge</p> <p>Feedback and benefit from the experience ensure the maintenance of quality</p>	<p>A principle is analogous to the ongoing legitimacy of the business Prince2 and indicates the link to the purpose of the organization and the importance of communication and knowledge management. The effects of the application of a principle are the steps to modify communication and knowledge management processes – production of knowledge, behaviour change, and the expected effects of behavioural change. The holistic approach and measure of its efficiency allows to build effective mechanisms based on communication, which ensures consistency of methodology with the strategy of the organization</p> <p>Prosumer is an active and aware consumer who wants to be a co-creator, not just a passive recipient of information and knowledge (Shul, 2013). As a prosumer the user has the right and obligation to participate in the functioning of the ecosystem of knowledge in the organization, e.g. as a panellist and commenting on messages, and user of the forum. Through own experience and knowledge, is the co-author of every single message and converts it into knowledge and appropriate behaviour</p> <p>Building a formal basis for the appropriate organizational culture, the sense of security of individual participants of ecosystem knowledge, allows one to create deep interaction and involvement. This creates a space to share knowledge and to disclose hidden knowledge. As a result, instead of searching organizations to identify and convert tacit knowledge to explicit knowledge – it is revealed in a spontaneous and natural manner. The presentation of tacit knowledge takes the form of language and the structure of the corresponding mode of functioning – occurs as a result of interaction and dialogue</p> <p>Too often the information system is built according to the logic of <i>the push</i> – the author sends <i>pushing</i> the word, and the problem without thinking about fitting the message to the user and context, e.g. commands or instructions encapsulates the corporate ornaments or vocations acts. For the quality of communication and knowledge management, it is critical to ensure that the author is responsible not only for the preparation of the text itself – but for the whole life cycle of a message. Thus, among others, placing the model currently under the guidelines of Bloom's taxonomy</p> <p>The quality and consistency of communication are the basis for the credibility of the message and the entire system of communication and knowledge management. General models of quality management are based on the feedback, at least in the form of complaints (e.g. PN-EN ISO 9001: 2009 among the requirements include the need to monitor information on the perception and customer satisfaction). Using the experience is one of the principles of Prince2 methodology. Only a combination of both types of information allows one to evaluate the effectiveness and identify problems in communication processes.</p> <p>In the case of communication and knowledge management one needs to redefine a customer's to internal customer – the business user of communication and knowledge management system. To achieve this – technology layer – engineered Web 2.0, layer of processes and organizational culture – social mechanisms. Conscious combining these dimensions in a consistent process solutions enables to ensure and continuously improve the quality of communication and knowledge management in the organization</p>

<p>Model message standardizes communication processes</p>	<p>Model statement should be interpreted as:</p> <ul style="list-style-type: none"> – logical object, – database object, – a “form” in the application supporting the process of knowledge management. <p>In the first approach – the message, understood as the primary object of the communication process – the minimum information required to effectively manage communication and knowledge. Author editor creating a message must examine the scope of information and consciously decide – which ones are necessary to be considered in each case.</p> <p>Two more model dimensions are linked to the application – serving the knowledge management (intranet site or knowledge base).</p> <p>First logic model can be placed in a database application as a concrete structure that provides complete information and meta information about the message. This structure is important on the one hand for flexibility of managing messages for a specific application. On the other – it makes it easy to transfer or download information into another tool. Most organizations have extensive IT and information environment. As a result, it is necessary to provide for the possibility of transfer of information between different applications.</p> <p>Secondly – as “a form” – helps authors and editors to analyse the message parameters. A through appropriate validation of rules can enforce:</p> <ul style="list-style-type: none"> – the introduction of specific parameters of the message (e.g. customer groups), – use the parameters in the correct format. <p>The importance of the model message consists of ordering business approach to the process of communication and describe the requirements for the application – should look like a template for entering and displaying messages.</p> <p>This allows you to simultaneously force the author to introduce the date of publication or suggest the basic questions that correspond to the message.</p> <p>In the example the author set up questions arising from Bloom’s taxonomy and the suggestion indicating that each message is really an instructions. This standardization of the communication process at the level of individual messages enables significantly easier to achieve a state in which readers see “one” organization, rather than dozens of different approaches to communication</p>
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Component	Category name	Category description
Themes	Operational activities	<p>They are critical to ensure the consistency and coherence of the two modes of communication to users. The simplest manifestations take into account the context of operational activities to bring separate communication channels.</p> <p>The first step is to mail as a tool for operational activities and selected notification of the publication of information in the knowledge base. Also placing in emails links to knowledge base – the abandonment of attachments (relieves the user of communication processes of care for the topicality held regulation – and provides the author of the message are sure that readers will be working on the correct version of the material).</p> <p>The next step is to use tools for creating workflows, and creating mechanisms for the same translation (e.g. instead of sending email with files Excel to fill, creating a site where users can simultaneously work and ask questions operational and familiarize themselves with the answers given to other people realizing it the same task). This approach reinforces the attitude prosumment and – through a layer tool – standardizes the way of communication and knowledge acquisition</p>
	Trainings	<p>They are both a sign of communication and a tool for knowledge management – should be harmonized with the system of communication and knowledge management. And ultimately, to optimize the efficiency of the entire ecosystem of knowledge they should be part of knowledge management</p>
	Knowledge	<p>Types of expertise used in the organization – in particular the information architecture of an organization (taxonomy). But also the types of knowledge according to the taxonomy of learning objectives by Bloom</p>
	Language	<p>Adapting the language of creation of texts and focus on the use and production of knowledge, as the main purpose of communication</p>
	Relations	<p>At the stage of implementation and then maintenance of the system of communication and knowledge management it is very important to manage stakeholders – in the context of the fulfilment of their needs and expectations. If there remains a climate and the dynamics of the relationship – communication and knowledge management dies or becomes another ordinary corporate portal. The relationship also reflects the Prince2 – organization, talking about filling specific roles of project people with specific competencies. However, in the case of communication and knowledge management, more important it is the aspect of the relationship</p>
	Applications	<p>At the level of application architecture and the subsequent structure of the business processes critical is the primacy of the strategic approach, in which different applications support learning. And active workers are not redirected to different applications – e.g. a separate corporate portal, knowledge base and innovation portal</p>
	Procedures and techniques	<p>Specific processes and techniques – indicated by the case system and good practices</p>
	Theoretical models	<p>Indication of theoretical basis underlying the techniques and processes. Allowing on the one hand better use of the methodology in its current form. On the other hand, enabling it to continuous development</p>

Process	Communication process	The process of producing and distributing of messages (information) and convert them into knowledge – in particular the use of Bloom's taxonomy consequences
	Knowledge management process	The development scheme of knowledge management: identification, acquisition, development, distribution, use and retention
	The implementation of knowledge management	Linking processes and concepts of project, change and organizational culture of the area of management. In particular, taking into account the Kolb's cycle and resistance to change
	The process of maintaining and improving knowledge management	The use of mechanisms of social networking, Web 2.0 mechanisms and mechanisms of quality management to ensure the required level of knowledge management. In terms of in-depth use of model elements by Kirkpatrick
	The process of managing stakeholders	The use of mechanisms of communication plans and strategies for the management of communications*
Maintenance	Generally, aspects concerning the use of further activities of the organization mechanisms implemented through projects or current activity.	commissioning applications and processes, to ensure and deepen the involvement of stakeholders in the daily functioning of communication and knowledge management, ensure the quality, timeliness and completeness of the tools of communication and knowledge management, change and evolution of organizational culture leads to build an organization based on knowledge

* The element of Prince2.

As a result of this separation of functions and activities in parallel are: management per se, communication and change management. While in many cases the empowerment of recipients of information, radically changes the way the changes go. First of all, by limiting the duration and strength stage of denial.

The aim of the postulated methodology is the integration of the selected achievements of science and workflows in one model, which allows for efficient and cost-effective implementation of elements of the whole communication and knowledge management system in the organization. In particular, this means the implementation stage, allowing you to add or modify the following products in a way not denying the existing achievements – the logic of open solutions. On the other hand, the methodology through its structure of four components is to enable asking the right questions, identifying the specific characteristics of the organization – as well as to make it easier to find answers through the suggested minimum range of processes and reference calling selected methods and techniques of communication and knowledge management.

Ensuring compliance with the methodology of communication and knowledge management in the organization is due to meet the Principles. Therefore, if an organization is interested in systemic approach to the management of this area of activity, should ensure the implementation of these Principles in the current business and project activity. According to the consequences of Gödel theorem (Mostowski, 1948) axiom system is not complete, however, for the construction of a universal methodology for managing communication and knowledge its extension should not require extension by more than 2–3 axioms. Other issues requiring detailed provisions should be moved to the level of guidelines and procedures to ensure readability model methodology.

Analysis by Themes enables the analyses of all the most important issues, which taking into account affects the efficiency of the implementation and quality of maintenance systems and processes of communication and knowledge management in an organization. In other words, Themes is understood as the sum of thematic areas ordering issues taken in the literature – recognized in this way, to provide the user of communication and knowledge management methodology in the organization of the possibility of a comprehensive look at the issues from the area. This eliminates the need to build specific models, starting with the details, but one can make sure that all aspects of communication and knowledge management have been addressed in the analysis frame, and detailed solutions are consistent with a holistic approach. In particular, the existing approaches to the methodology of knowledge management focus on the implementation of the methodology or its maintenance, while only approach in the long term – with particular emphasis on freezing changes – ensures the success of such a venture.

If one refers to the reasons of choosing topic: the rate of change of the business environment, the multiplicity of roles of a user of communication and knowledge management processes within and outside the organization, the multiplicity

of tools and partial solutions – methodology provides a model analysis of the situation and combining existing and possible to implement tools and processes into one coherent system of communication and knowledge management in the organization. From a certain point of view, there is therefore nothing new. Yet its value lies in its versatility and the fact that existing tools and models can be seen as parts of a larger whole.

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Non-financial corporations: Changing accumulation pattern and relations with financial institutions

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Abstract

The article refers to the phenomenon of the dissemination of financial logic in the management of joint stock companies, which basic activities are conducted outside the financial sector. This phenomenon has been observed in the United States since the eighties of the twentieth century and is also confirmed in the European Union, some Polish companies operating across borders included. Non-financial corporations are increasingly interested in profits derived from financial assets, financial institutions alike.

The article reviews literature in purpose to draw attention to new problems of control which result from the change mentioned in the title. In case of non-financial corporations undergoing the change controlling by financial institutions becomes elusive and illusory.

Paper type: review article

Keywords: corporate governance, economic interest, financialization, US corporations

Introduction

The phenomenon of acquiring financial logic in managing joint stock companies which basic activities are conducted outside the financial sector wins interest in American literature mainly since the nineties of the 20th century. The carrier of this change are big corporations of American or Western-European origin. As they operate across borders, patterns and problems associated with the discussed phenom-

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enon are transferred to the peripheral economies of the South, not missing the Eastern European EU member states. The effects are not limited to a new style of managing a multi-level stakeholder enterprise that is to corporate governance. Institutional changes in the domain of companies are transferred into state institutions, which in turn provide the framework for socio-economic policy in the countries concerned. According to Aoki (2001), the state constitutes of government and the rules that it (in part) sets and (with varying efficiency) enforces. It is perceived also as a sphere of political exchange between government and the private sector, the result of which is a certain order between them (Aoki, 2001, p. 152). That institutional order is subject to change in the domain of the state (polity) nowadays. Through various access channels corporations influence the decisions of the government. Dynamic processes of accumulation and of displacement lead over time to changes at the layer of economic system as well as at the layer of economic policy (more Ząbkowicz, 2009).

The article deals with the case of the USA as the one which is best documented. According to all the data it is in the United States where one should look for the beginning of the process under consideration. The context created by the broader economic policy is important, because interrelations between large business organizations and socio-economic policies seem to be bi-directional. Financialization of non-financial corporations in the United States is the outcome of a turn-about in macroeconomic policies, and of reforms initiated at the turn of the seventh and eighth decades of the 20th century. This change was in the sake of maintaining competitiveness and ability to generate profits of domestic corporations. In the face of two oil shocks and the largest post-war recession in the seventies manufacturing corporations required restructuring. New conservative-liberal economic policies implemented by the Reagan's and Carter's administrations as well as by the Fed, chaired by Paul Volcker, were to make competitive position of US companies stronger (Panitch & Gindin, 2005, p. 150). Favourable conditions for entrepreneurs were to be created by increasing the scope of free market through the deregulation of state-controlled sectors and through their privatization, and due to macroeconomic-policy focus on reducing tax and para-tax burdens, and on reducing inflation as well. These changes were accompanied by liberalization of finance, which was among other things meant to lower the barrier of demand for businesses. A surge in loans to the private sector (since the mid-seventies), and the increasing role of consumer credit in relation to disposable income (from the early nineties) could be observed (Lehman, 1997). The bank loans increasingly funded not only purchases of goods but also of variety of financial assets, with the latter leading to a series of price bubbles in stock and real estate markets, tolerated by the Fed because of the wealth effect (more Ząbkowicz, 2010). Corporations whose original domain was production became engaged in the leveraged purchases of financial assets, this is of stocks, debt securities, real estate, derivatives, etc.

The topic of this article is the change in the accumulation pattern of manufacturing corporations, which involves growing share of income from trading financial assets and from lending. The change concerned meant revaluation of basic objectives of the organization as well as of relationships between the basic groups of stakeholders. Consequently, the hypothesis emerged on the new alliance between management of manufacturing corporations and management of financial institutions.

The article reviews literature in purpose to draw attention to new problems of control which result from the change mentioned in the title. The hypothesis is posed that the convergence of managers' interests both of non-financial corporations and of financial institutions could mean a weakening control, evenly in internal and external dimension. This situation may, among others, weaken incentives to promote quality management in non-financial companies.

1. Management – new ideas and new institutional solutions²

The growing share of exclusively financial transactions in generating non-financial corporations income seems to be the key to understanding the change in their behaviour, at least in the class of large multi-divisional organizations.

Changes in the income structure of manufacturing companies can be measured, using balance-sheet data for a sample of large companies, as Krippner (2005) does. She proposes an indicator that makes it clear that currently non-financial corporations in the USA are less reliant on their original domain of activity. Especially in the case of manufacturing companies shift in pattern of generating profits from operating activities to financing activities is evident. In 2001, income from financial operations generated by US industrial corporations almost equalled net income from operating activities (Krippner, 2005, p. 185). The former category that is portfolio income consists of interest, dividends and of income from asset trading, mainly share buybacks (Krippner, 2005, p. 174). The dimension of the phenomenon measured this way in the eighties and nineties of the twentieth century multiplied as compared to the fifties and the sixties and ranged at three to five times higher. Some studies also confirm the growing interest in non-production and non-trade activity of leading European corporations. For example, one can refer to the data on the increase in income from financial operations compared to net income concerning the leading companies in the food industry (Table 1). This group includes companies such as Danone, Nestle and Unilever (Palpacuer, Seignour, & Vercher, 2008, pp. 5, 9).

² This section contains excerpts of the article: The growing importance of income from financial transactions in non-financial corporations (financialization) – institutional context (Ząbkowicz, 2009).

Table 1 *Dividends and share buybacks as % of cash flows, 1996–2000, food industry*

Year	European corporations (n = 11)	American corporations (n = 8)	Together (n = 19)
1996	26.6	101.7	48.8
1997	28.1	67.0	42.1
1998	32.6	116.0	54.9
1999	47.1	93.1	59.0
2000	33.3	68.1	46.2
Average	33.5	89.2	56.4

Source: Palpacuer, 2008, p. 32.

The change in the pattern of accumulation captured in the referenced study is associated with changes in the system of coordination in the domain of corporations. Since the eighties of the twentieth century both in the United States and in Europe one can observe a process of installing corporate institutional arrangements that make boards of non-financial corporations inclined to gain revenues in the financial markets.³ Owing to these devices the phenomenon turns out to be broader than the current “technical” description could suggest. It develops along with changes in procedures for setting goals, in motivation systems, in controlling and in enforcement of tasks and obligations. For example, compensation of chief managers through stock options made their earnings dependable on the prices of shares of the managed company (Palpacuer et al., 2008, p. 4). Thus, the interests of corporate managers have become more consistent with the interests of shareholders. For similar reasons, boards of directors make decisions about engaging in programs of share buybacks. The activity of managers of non-financial companies is strongly oriented to reporting in accordance with the requirements of the financial markets. One of the examples is the implementation of the Economic Value Added Indicator, which was seen to have been introduced in the surveyed companies at the turn of the twentieth and twenty-first century (Palpacuer et al., 2008, p. 4). Generally speaking, the indicator contains the difference between company’s gains from the operating activities and the remuneration of capital. The latter figure contains, among others, the return on capital expected by investors. Allowing profits to shareholders *ex ante* constitutes a breakthrough to the previous practice of calculating it *ex post* as the rest which remained after claims of stakeholders having been satisfied. Institutional devices of this kind have shaped management style known as a “shareholder view.”

³ The same process has been observed since the end of the nineties in Japanese *keiretsu* conglomerates.

The procedural rules (institutions) under consideration are rooted in a system of ideas, normally referred to as focused on shareholder value creation. The corporation is seen as a device for enrichment of its owners and/or as a bundle of contracts. In terms of the theory of transaction costs a company can be reduced to the sum of bilateral contracts between individuals who undertake rational and opportunistic decisions (Williamson, 1998). According to the agency theory and the theory of property rights (Alchian, 1977; Demsetz, 1967; Furubotn & Pejovich, 1974) managers are salaried professionals whose job is to create value for shareholders. Human resources are treated like a commodity. If the price of an employee is not adequate to his or her contribution to value creation the company gets rid of him/her (market-based human resources model). Likewise, relationships with other stakeholders, that is with managers of other companies, with banks, with suppliers, etc. become commodified.

This tangle of interests, institutions and ideas implies conduct different from the previously dominating focus on a stakeholder (so called stakeholder view) which manifested itself, among others, in cultivation of traditional business relationships with employees, with banks, etc. Basically, the shareholder view recommendation for strategic corporate management is to “downsize and distribute” (Lazonick & O’Sullivan, 2000; Crotty, 2005). Downsizing relates primarily to employment and labour costs, yet the distribution relates primarily to corporate profits being divided among shareholders. The first recommendation contains lay-outs either transfer of jobs to other countries via direct investment or outsourcing of tasks to other companies. Profits flow to shareholders mainly in the form of dividends or in result of the stock exchange operations. The significance of stock-exchange in the model seems to be extraordinary. Due to acquisitions and hostile takeovers of control packets of shares the capital markets mobilize and motivate the managers. Accordingly, it is maintained that a commitment to create value for the owners is controlled by the market (market for corporate control).

Therefore, some authors hypothesize about a new alliance (Palpacuer, 2008). According to views close to the school of regulation the major decision-making is made by managers, and it is their job to decide both about strategy as well as about coalitions with other stakeholders. When mass production meant successful business strategy, then Fordism was on the top and the role of stakeholders in the company was acknowledged. At that time managers together with engineers and other white-collar employees formed part of the so-called technostructure (Palpacuer, 2008, pp. 5–6; Galbraith, 1973).

In the last decades of the 20th century strategies, management styles as well as alliances were subject to change. Corporate managers “discovered” a strategy of global competition, which to a much greater degree relies on financial operations like foreign investment, mergers and acquisitions, etc. where the game is primarily about the ratio of stock prices. Consequently, they began to identify their own interests with shareholder value creation which involved an amendment of

the rules of the game in the domain of businesses. It is emphasized that although the change has contributed to increasing convergence of interests of management with the interests of the owners of companies, strategy and coalitions are still a matter of choices made by corporate managers rather than a matter of influence of shareholders. Increased interest of management of non-financial companies in stock exchange-operations is combined with intense communication with financial analysts and brokers that is with investment managers; there were established procedures of meetings and consultations of the representatives of boards of non-financial corporations with agents of financial markets. Similarly, the growing debt makes good relations with banks even more important. In recent decades, preferences and attention of managers seem to have moved from the staff to investors, or more precisely, to financial institutions, that is banks and institutional investors (Boyer, 2000; Sklair, 1998).

2. Relations with financial institutions – control or shared interest

The issue of alliances includes into perspective power relations and group interests, and thus makes to cross the conventional boundaries of corporate governance. In this regard the following changes seem to be important as far as non-financial corporations concerned. First, the increased participation of representatives of financial institutions in the boards of these companies, which implies control issues. Secondly, manufacturing companies have become much more dependent on resources provided by banks and financial markets, which has an impact on the balance of power.

Literature on control issues does not rely on the simple distinction made by Berle and Means (1991) between shareholders and managers alone, but examines the impact which creditors, mainly banks, and other financial institutions, mainly institutional investors, exert on non-financial corporations. During the seventies of the twentieth century the issue of control with regard to non-financial companies was seen in the context of debt repayment strategy and of participation in mergers and acquisitions (Kotz, 1978). The role of banks as creditors was implied by the presence of their representatives in the corporate boards and stimulated research, to what extent, therefore, banks monitor and shape the behaviour of non-financial companies (Kotz, 1978; Mintz & Schwartz, 1985; Mizruchi & Sterns, 1994). Contemporarily, along with growing importance of financial markets in the strategy of large corporations, a growing share of institutional investors among major shareholders has been observed (Palpacuer, 2008, p. 3). Does this mean that one can defend the thesis that shareholder view was imposed by the financial sector's representatives present in the boards and general meetings of the non-finan-

cial companies? The debate did not end in a clear decision (Mizruchi, 1996; Davis & Thompson, 1994; Fligstein, 2002; Zorn, Dobbin, Dierkes, & Kwok, 2004).

Some studies challenge the view that the presence of institutional investors among the major shareholders played role in financialization of non-financial corporations (Palpacuer, 2008 p. 3). Research on transnational corporations operating in food industry on a sample from the United States confirms the dominance of institutional investors among the largest shareholders (83%) in the end of the last century. Such ownership structure could be a partly explanation to the more pronounced focus of management decisions on profits from financial operations. However, the hypothesis which seems to have a strong foundation in the American experience weakens if one looks closer at the distribution of property in the selected European companies. First, the role of institutional investors in the case of corporations from Europe is significantly lower (41%), and, further, it decreases if the UK is excluded. Secondly, in those cases where the involvement of institutional investors is the lowest, the concentration of capital in the hands of other investors is extremely high. Those non-institutional shareholders of large corporations in mainland Europe are families and managers' partnerships. In short, in this group of companies, with Dutch Heineken and French LVMH included, institutional investors have very little to say. Even in the two companies previously referenced as the examples of financialization, this is in Nestle and Danone, the role of institutional investors seems to be incomparably smaller than in the surveyed US companies due to low concentration of capital in the hands of major shareholders. In the surveyed European companies, modelled according to the American design, such rules and controls gained popularity which channel managerial interest in non-financial corporations to stock markets and to other financial markets. With regard to this re-orientation of managerial decisions in non-financial corporations, however, the cited studies, at least in the European context, do not provide a strong foundation to the view that owner supervision of financial firms played an important role. At the same time they cast doubt on whether institutional investors were indeed the medium through which shareholder capitalism radiated from the United States to Europe.⁴

Nevertheless, there is no doubt that financial firms are to be found at the center of business connections of non-financial companies. While the facts of control are often difficult to be observed directly, dependence on the resources provided by financial institutions can be clearly demonstrated in numbers as well as via reconstruction of the historical process of change. We have just presented numbers

⁴ The shareholder view in management is popular in countries where business schools appear in considerable numbers. Opening up of the domestic financial markets in Western Europe in the eighties and in Central Europe in the nineties must be considered as one factor, and the recruitment of English-speaking managers for top positions in large corporations in continental Europe must be considered as another one (Palpacuer et al., 2008, p. 5).

showing significant and growing share of the profits from financial transactions in the income of non-financial corporations. This trend means increasing dependence in income generation on the availability and price of credit as well as on conditions in other financial markets. Additionally, the balance sheets of this sub-sector, which constitutes the core of the US economy, have shown dramatic increases of payments to financial markets and of spending on share buybacks as related to adjusted net income (cash flow). Such changes in the balance sheets of non-financial corporations were a reflection of the developments in the credit markets and in the equities turnover in the nineties of the twentieth century. Namely, since 1982 the indebtedness of US non-financial corporations in relation to net assets has grown rapidly. The stock-exchange boom between 1994 and 1998 caused an unprecedented revaluation of their assets. Along with a relatively easy growth of their market value, experienced in the second half of the nineties, increased their sensitivity to the stock quotes; due to the growing debt their sensitivity to interest rates increased as well (Crotty, 2005, pp. 84, 98, 99).

The rising asset value allowed for massive borrowing, while the credit leverage, in turn, allowed for expanding purchases of securities and financial instruments. Effectively, along with growing debt grew also financial assets in relation to tangible assets (Crotty, 2005). Access to bank loans which are pledged by financial assets, stimulated demand and led to the stock market top, and, consequently, functioned as a leverage of income from financial operations to numerous actors. Banks offering credit to corporations (the larger the more reliable) earn interest. Corporations, taking advantage of available credit, invest in financial assets. Brokers in the financial markets take their commissions from rising turnover and see their earnings increasing. Rising demand induces increases in stock prices and improves the instruments and indicators related to them, stock options and EVA alike. Shares and other financial assets whose prices are rising are accepted as a pledge by banks who are willing to grant further loans. Firms being encouraged by income indicators, and being aware that the latter transform into interest of financial investors, use bank loans as before. As long as credit is available and the prices of financial assets are growing, the logic of leverage makes all parties of these transactions happy. Thus, both debtors (non-financial corporations) and creditors (banks) as well as institutional investors and financial markets intermediaries are interested in maintaining this situation.

In short, in the last decades of the twentieth century the mechanism of financial leverage allowed to multiply profits without undertaking production activities; thus industrial capital, which recognized the role of more aggressive finance in generating profits, went hand in hand with interests of financial capital (Panitch & Gindin, 2005, p. 151; Krippner, 2005; Arrighi & Silver, 1999).⁵

⁵ The contemporary return to finance should be seen as a single precedent in the rich history of such rounds.

Contemporary relations between non-financial firms and their partners from financial sector lead to the following conclusions. The problem of control of a manufacturing corporation by banks and other financial institutions which is developed in literature should not obscure the importance of convergence of interests between industrial and financial companies. Evidence that the financial companies control non-financial ones is rather difficult to grasp. However, some research confirms the importance of revenues from operations in money markets and from trading financial assets, which in the nineties accounted for nearly a half of incomes of non-financial corporations. This phenomenon seems to be the key to understanding the changes in their behaviour and strategies (Krippner, 2005, pp. 201–202). However, data aggregated, for example at the sector level, rather mask the size of the change. The phenomenon of the growing importance of revenues from the exclusively financial transactions becomes clear at the level of companies as result of studying their financial statements. In total, the issue of who controls whom has lost its importance under new circumstances where both financial institutions and non-financial firms share interest in using financial leverage and in trading financial assets.

Conclusions

The article refers to the literature which indicates a significant interest of US non-financial corporations in the non-production and non-commercial activities. A measure of this phenomenon is the share of income from interest and turnover of financial assets as well as of dividends, which at the turn of the twentieth and twenty-first century accounted for almost half of the total income of the surveyed companies. We probably look at the change in pattern of accumulation, whereby the income from core operations of US non-financial corporations constitutes no longer the major income. Such change in structure of income of these companies is the starting point to the characteristics of fundamental change in the management style to be observed in the past decades. It seems to explain both the strategy and the new institutional solutions, referred to as the shareholder view management and the shareholder value creation. Corporate boards motivated in line with the ideology of shareholder value creation see their interests more aligned with the interests of shareholders, however, competitive strategy and coalitions of stakeholders seem to be still primarily a matter of the managerial choices.

The article refers to the fact of the increased participation of representatives of financial institutions in some boards of non-financial companies and raises the question whether this fact contributed to the managers' seeking revenues to more extent in the financial markets. The sources reviewed do not provide a strong evidence for the role of financial members of boards in the re-orientation of corporate

governance. Importance should be given to the growing dependence on resources obtained in banks and in the financial markets rather than to the balance of power in corporate structures. The addiction stems from the fact that global competition implies a much greater reliance on financial operations, with share prices and credit leverage playing a pivotal role. There is no doubt that financial firms are situated at the very center of business connections of non-financial corporations. The balance sheets of the sub-sector confirm this finding, providing the indicators quoted in this paper, such as a significant share of profits from financial transactions in total income, an increase in financial assets in relation to physical assets, a relative increase in payments to the financial markets as well as in spending on share buy-backs, increased indebtedness due to credit as related to the net assets, etc.

The review indicates the relatively new phenomenon of financialization of non-financial corporations and opens up questions about its possible consequences. The findings inspire to put forward a number of issues requiring further research.

Firstly, traditional roles in relations between manufacturing companies and financial intermediaries change. The growing share of profits from exclusively financial operations suggests that non-financial corporations less than in the past require borrowing in order to maintain the liquidity and continuity of the production and marketing processes, whereas banks consider respective loans to be a diminishing segment of their business.

Secondly, the interests of creditors and investors more than in the past seem to be consistent with interests of market-controlled companies, and come together on the financial markets. The increase in turnover of financial assets is the source of income to all participants of financial markets, this is to intermediaries in the transactions on commodities, securities and derivatives as well as to financial investors and to banks who support investment with credit, having become a major concern of non-financial corporations since several decades as well. The mechanism of leverage enables profits without production.

Thirdly, the reconfiguration of interests weakens oversight over the internal and external pro-effective processes in the domain of companies. Under new circumstances, both the creditors and financial investors seeking investment opportunities in the open market may be less interested in the productive performance, coming out from improvement in product quality, manufacturing process and competent management. Indeed, they attach importance to the financial indicators. The latter can often grow faster than the efficiency of core-business activities allows thanks to high profitability of exclusively financial operations. In the eye of creditors or “markets,” the results due to increases in share prices or interest are likely to compensate the lack of managerial and/or engineering achievements.⁶

⁶ This is what was probably meant by the CEO of the KGHM mining group, a Polish giant doing business internationally. Namely, he said that the company, which by nature of the industry generates high costs and makes profits only in the long run, thanks to appropriate asset portfolio can be,

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however, well perceived by financial institutions. Anyway, “if the owner acts financial institutions alike, it bodes no good” (Wirth, 2015).

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