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Contents

Dorota Balcerzyk	
Financing projects of cultural institutions encouraging the youngest consumers participation in culture	7–14
Kamila Bednarz-Okrzyńska	
Investment risk in WIG30 bank sector stocks – assessment of the applicability of theoretical measurement methods	15–21
Agnieszka Budziewicz-Guźlecka, Mariusz Woźniakowski	
Social media in the marketing communication of Polish banks	23–29
Andrzej Bujak, Joanna Nowakowska-Grunt, Lubica Harakalova	
Major transformations of the 21st century logistics and their implications to the logistics management	31–40
Kazimierz Cyran, Sławomir Dybka	
The importance of social media in financial services' selling	41–48
Maciej Czaplewski	
Selected issues of trust between transaction partners in e-commerce	49–55
Rafał Czyżycki	
Effect of adopted diagnostic variable weighing system on the results of investigation of socioeconomic development of voivodships in Poland	57–66
Anna Dąbrowska, Mirosława Janoś-Kresło	
Benefits and threats related to the functioning of Polish tourist companies against the background of the liberalisation of the services market	67–72
Anna Drab-Kurowska, Paweł Kuźbik	
Sports clubs as learning organizations – Polish model	73–80
Juliusz Engelhardt	
Theoretical basis for calculation of charges for access to railway infrastructure in the light of European Union law	81–89
Marzena Frankowska, Katarzyna Nowicka	
Smart Supply Chain – challenges of information-driven management	91–97
Agnieszka Górka-Chowaniec	
Assessment of the quality of service in the catering industry as an important determinant in escalating the level of consumer confidence	99–107

Dagmara Hajdys, Magdalena Kogut-Jaworska	Institutional support for local communities within waste management policies, based on the example of the NFEP&WM Programme	109–116
Małgorzata Kieźel	Manifestations of implementation of the CSR concept in the retail banking sector in Poland	117–124
Zuzanna Kłos-Adamkiewicz	Value of services for passenger in public transport – theoretical approach	125–131
Barbara Kos	Public Urban Transport Services in the Context of the Metropolitan Union in the Silesian Voivodship	133–139
Aleksandra Koźlak	Importance of European Commission's new initiatives in road transport for competitiveness of services provided by Polish hauliers	141–148
Augustyn Lorenc	Assessment of logistic customer service in the CEP sector on the example of Cracow	149–156
Justyna Łapińska, Jarosław Wojtas, Maurycy Graszewicz	Breaching the principles of corporate social responsibility and rules of the sharing economy in the passenger transport services market	157–163
Aleksandra Łapko	Problems of yacht charter companies in Poland	165–172
Małgorzata Marzec	Major choice determinants. Comparative analysis of the public management major at the Institute of Public Affairs of the Jagiellonian University	173–178
Maciej Michnej, Tomasz Zwoliński	Improving public transport service quality through Sustainable Urban Mobility Planning	179–187
Danuta Mierzwa, Mateusz Gędek	Internal audit as a tool for quality control of customer service – case study	189–197
Tomasz Norek	Impact of EU funds on the effectiveness of innovations implemented in the SME sector in Poland	199–206
Stefan Nowak, Agnieszka Ulfik	Eco-education as an element of municipal waste management systems in Poland	207–212

Aleksander Panasiuk		
	Theoretical aspects of innovation in health Tourism	213–220
Małgorzata Porada-Rochoń		
	Corporate insolvency in Europe	221–228
Aleksandra Ptak, Paula Bajdor		
	Modern mobile technologies as the support for university students in the learning process	229–235
Marek Ratajczak, Izabela Bludnik, Dawid Piątek, Katarzyna Szarzec		
	New Structural Economics – discussion about development policy based on innovation	237–241
Grażyna Rosa, Tomasz Sondej		
	Financing infrastructure in the Polish TSL sector from EU funds	243–252
Ireneusz P. Rutkowski		
	Adaptation a method of measuring new product development process maturity in service design	253–258
Andrzej Rzeczycki		
	Usage of IT tools in logistics services design – opportunities and challenges	259–265
Joanna Rzempala, Łukasz D. Sienkiewicz		
	Pilot study on the basis of IPMA POLAND certification results	267–276
Tomasz Smal, Robert Balcerzyk		
	Talent management in the context of service companies	277–287
Edyta Spodarczyk		
	Characteristics of Services and their Consequences for the Strategy of Social Responsibility	289–295
Adam Stecyk		
	Teaching quality in blended learning mode	297–302
Joanna Stefaniak, Iwona Bąk		
	Assessment of competitiveness of the EU export in services	303–310
Anna Szwajlik		
	Selected areas and methods of applying the concept of working consumer at a company	311–317
Damian Walczak, Sylwia Pierkowska-Kamieniecka, Anna Bera		
	The influence of social determinants on retirement savings in Poland	319–325

Karolina Wielicka-Gańczarczyk	
Commercialisation of public hospitals located in the Silesian Region – results of own research studies	327–333
Anna E. Wolnowska	
Study of the quality of services on the example of the selected chain of discount stores	335–343
Mariusz Woźniakowski	
CSR as a Marketing Communication Tool for Companies in the Financial Services Sector	345–351
Ewa Wszendybył-Skulska, Marek Zawartka	
Safety and security as the basic determinants of quality of hotel services	353–359
Magdalena Ziolo	
The financial sector towards efficiency of sustainable development financing in the light of literature review	361–366

FINANCING PROJECTS OF CULTURAL INSTITUTIONS ENCOURAGING THE YOUNGEST CONSUMERS PARTICIPATION IN CULTURE

DOROTA BALCERZYK

General Tadeusz Kościuszko Military University of Land Forces, Wrocław, POLAND
e-mail: d.balcerzyk@wso.wroc.pl

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KEYWORDS	cultural institutions, public organizations, participation in culture, funding for culture
ABSTRACT	Participation in culture is a human activity that can undoubtedly fill free time and is universally approved. Main roles that cultural institutions play include shaping and educating a consumer, who in the future will be not only a conscious and systematic recipient, but also a culture carrier. The article deals with the issue of subsidizing cultural institutions' projects aimed at young recipients with receptive minds. The results of research describe the feelings of managers of cultural institutions in relation to co-financing their activities. They also indicate the extent of utilization of various sources of project funding by institutions of culture.

Introduction

Cultural institutions are part of a broad market of free time management of a part of the society. As public institutions, they should best fulfill their role as culture promoter and cultivator, which in today's competitive environment is not an easy task, especially considering budgetary constraints. In this context, financial support for these institutions' activities is gaining in importance.

Contribution of cultural institutions to shaping the habits of participation in culture in the youngest consumers — literature review

Man's free time as one of forms of human life, the social reality that exists today and existed in the past, is taken up by the social sciences, including psychology, pedagogy, economics and sociology. The classic, French sociologist J. Dumazidier (1962, p. 27) describes free time as a category of behavior that encompasses all activities that an individual can devote himself/herself to, whether for leisure, entertainment, development of his/her knowledge or for selfless learning, as well as voluntary participation in social life after the completion of professional, family and social duties. According to J. Dumazidier (1974, p. 165), free time is only the time that satisfies the conditions such as the voluntary choice of actions, the personal nature of the activities and the lack of utilitarian benefits.

In economics, free time is perceived as a time of consumption in which various social needs are addressed. It requires a time management strategy (Jung, 1989). The market of services such as tourism, gastronomy, entertainment, media, but also those in the field of culture or wellness offer leisure time activities. Economic research deals with the diagnosis and predictions as to these services (Kolny, 2013). Economists understand leisure as both a consumption market and a labor market (an employer). Economists also see free time as a sort of "surplus" generated by the economy when analyzing the problems of choice between income growth and the amount of free time. It is worth emphasizing also the value and valuation of leisure time, not only as autotelic values, but also as utility and economic ones, or those satisfying specific needs: consumption, rest, regeneration (reconstruction of workforce). Leisure time is also considered as an additional time of developmental and creative functions (Jung, 1989, pp. 88–103).

Leisure time can be spent on developing interests, but also on shaping habits, participation in culture and cultural activity. Participation in culture consists of specific forms of social activity, which are oriented at the reception and interpretation of works of art (Golka, 1996; Kaplan, 1989; Kisiel, 2003). These behaviors are important for the proper functioning of each community and an individual as well. This is primarily due to the importance of culture in social life. Participation in culture is the most desirable element, as it provides the benefits both to the participant and to the community or society (social system) within which certain actions take place. Maybe that is why the increase in the level of participation in culture is one of the priorities of the European Union's social policy. Broad cultural participation fosters the development of a knowledge society. Not only is it important as an area of aesthetic experiences that delivers enjoyment to a recipient, it is also the area of such important community experiences that create or modify the system of social relationships and bonds. Shaping cultural activity habits is one of the means to equalize social opportunities and invest in human capital.

Research shows that the mass media (the Internet access, watching TV), tourism and recreation are still among the main forms of spending leisure time, which enjoy the greatest social interest without which we cannot even imagine the opportunity to spend that time. Despite being given greater social recognition the forms associated with cultural participation and the use of cultural institutions are less common and desirable (Kolny, 2013, pp. 183–185; Pietta, 2014, pp. 79–103).

In the perspective of the *all-inclusive* culture (Melosik, 2013, p. 53), where everything is mixed and the *instant* culture reigns traditional leisure activities go into the background. Cultural institutions are primarily responsible for the change of the situation, as due to the purpose of their establishment, which was specified in the provisions of the Act of 25 October 1991 *on the organization and management of cultural activities*. The main task of a cultural

institution is the activity related to the maintenance and development of cultural heritage (Olechnicki, Załęcki, 1997, p. 85). However, as set up in the provisions, they are organizational forms of cultural activity, which within the meaning of this Act, consists in the creation, dissemination and protection of culture. Institutions of culture include in particular theaters, operas, philharmonic orchestras, orchestras, film institutions, cinemas, museums, libraries, community centers, art centers, art galleries and research and documentation centers in various cultural fields (Act OECA, 1991). There are various criteria for classification of cultural institutions. Depending on the accepted classification criterion, numerous types, categories and subcategories of cultural institutions can be distinguished. Following the criterion of ownership (most frequently in relation to the establishment (setting up), supervision and funding), the following cultural institutions are distinguished: public (government and local government at three levels of voivodeship, district and municipality sub-categories:), private, civil (NGO) – associations and cultural foundations and mixed categories (e.g. music camps, companies with public capital share) (Kaczmarek, Gruszka, 2017). Due to the criteria of professionalism, professional, semi-professional, non-professional cultural institutions can be distinguished.

When it comes to the economic assumptions, the criterion of commerciality is taken into account, hence the division into commercial and non-commercial cultural institutions. The Article 11 of the Act on the organization and management of cultural activities introduces the division of cultural institutions into artistic ones and others. **Artistic institutions** are cultural institutions established for the purposes of artistic activity in the field of theater, music, dance, with the participation of artists and performers, mainly theaters, philharmonic orchestras, operas, operettas, symphonic and chamber orchestras, song and dance ensembles and choral ensembles. **Other than artistic ones** are those cultural institutions, which include, for instance, film institutions, cinemas, museums, libraries, cultural centers, art centers, art galleries and research and documentation centers (Act OECA, 1991) are other than artistic institutions. It should be noted that a certain institution can and often belongs to several categories or types depending on the criteria adopted.

Institutions of culture, regardless of whether artistic or other ones are considered, operate based on the foundation act and the statute authorized by the organizer. Such an act specifies the subject of activity, the name and seat of the institution, and the fact that the given institution is an artistic institution.

The nature of a cultural institution's activity is determined not only by its category of affiliation but also the source of finances, which depend on the institution's legal status. Cultural institutions may be run by local government units, since cultural activity is included in their own mandatory assignments, and can be organized by legal persons, natural persons and organizational units which have no legal personality. Institutions of culture, which are organized by local government units, may receive targeted subsidies for tasks covered by state patronage, subsidies for financing or co-financing the costs of carrying out investment from the state budget from the part that is at the disposal of the minister competent for culture and protection of national heritage (Act OECA, 1991).

Various factors influence the development and attractiveness of a cultural institution's offer. Undoubtedly, in the age of competition, the external support for these institutions' activities is of crucial importance. Performing statutory tasks is often associated with the search for new forms of activity or cooperation with external institutions and solutions enabling them to function on the market.

Methodology and the conduct of research

The purpose of the research was to assess the financial support for cultural institutions, that would facilitate the organization of forms of participation in culture targeted at early school children. The article presents the research material acquired by means of the diagnostic survey method. Data obtained from the analysis of questionnaires that had been previously sent to the executives of cultural institutions located in the city of Wrocław were supplemented using the method of analysis of secondary sources - websites of the institutions under investigation. Institutions were selected for the study by the criterion of having an offer accessible to early-school-age children. The research sample was chosen after analyzing the data obtained from the Public Information Bulletin of the Wrocław City Hall, the Culture Institution Register, as well as the websites of cultural and educational institutions located in Wrocław.

The study included four Youth Culture Houses: the Fabryczna Youth Culture Houses, the Krzyki Youth Culture Houses, the Śródmieście Youth Culture Houses and the Mikołaj Kopernik Youth Culture Center (also called the Center for Cultural Education of Children and Youth) (EIW, 2014); theaters: the Puppet Theater and the Polish Theater, musical scenes: the Capitol Musical Theater, the Wrocław Opera, the Witold Lutoslawski Philharmonic (since 2014 the National Forum of Music); museums: the Wrocław City Museum, the National Museum in Wrocław (and its two branches), the Museum of Post and Telecommunications, and cinemas: Multikino (two branches), Helios, Cinema City and the New Horizons Cinema. Moreover, as to the offer addressed to children at the early school age, the study included: the Wrocław-Zachód Cultural Center, the Agora Cultural Center, the Discovery Center Centennial Hall and the Wrocław Zoo. A total of 20 surveyed institutions correctly completed the questionnaires. The data analyzing purpose, they were assigned to five categories of institutions: Youth Culture Centers, theaters and music scenes, museums, cinemas and others.

Results of own research - Financial support for projects of cultural institutions that organize leisure forms aimed at the youngest consumers

The issue of funding is the primary concern for cultural institutions. However, it turns out that the cultural institutions under study do not experience a significant financing problem, especially regarding the offer organized for children in early school age. Figure 1 depicts results obtained to the question of whether the financial support for individual entities (such as foundations, associations, municipal, district and ministerial measures, sponsoring, etc.) is sufficient in relation to the organization of forms addressed to early school children.

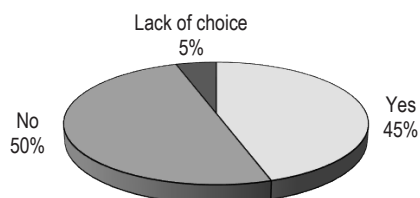


Figure 1. Evaluation of financial support for cultural institutions for the organization of leisure forms for children at the early school age

Source: own study, Wrocław 2014.

Respondents' answers divided almost in half. As many as 50% of them believed that the financial support for individual entities was insufficient. However, a similar percentage, as 45% rated financial support as sufficient. Only 5% of respondents did not express their opinion.

The financial support assessment provided by the studied institutions is shown in Figure 2 as the dependence of the respondents' answers on their belonging to a particular category of institutions.

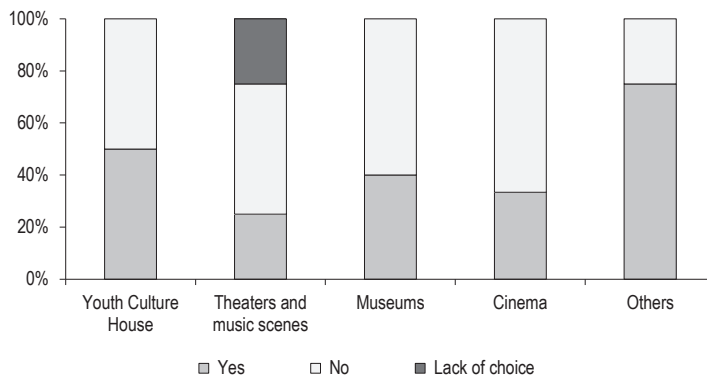


Figure 2. Evaluation of financial support for cultural institutions for the organization of leisure forms for children at the early school age depending on belonging of respondents to particular categories of institutions

Source: own study, Wrocław 2014.

The respondents assigned to the category *others* were most satisfied with financial support. 75% of them accepted the current level of support. The answers were split in half among the respondents from the Youth Culture Centers. Most of the respondents from the Wrocław museums (60%) rated financial support as insufficient. The cinema representatives were the most dissatisfied group, of which 67% assessed it as insufficient.

It seemed interesting to gather information on entities that take on a role of supporting financially cultural institutions, which greatly facilitates the organization of forms addressed to young consumers. Hence, the executives of the surveyed institutions were asked in the survey questionnaire to indicate institutions – entities supporting their finances in the development of offer for children at the early school age. Respondents were asked a semi-open question, where they could select groups of entities supporting them financially from the proposed cafeteria, however they also had the possibility to add others than those mentioned. The analysis of responses to the above question is presented in Figure 3. The research clearly indicates the greatest support of cultural institutions from urban and provincial funds (12 indications). When choosing the above entities from the cafeteria, respondents suggested supplementing the list with the Department of Education and the Department of Culture of the Wrocław City Office within the framework of a yearly grant for their activity, while the Marshal Office of the Lower Silesian Voivodeship was mentioned only once.

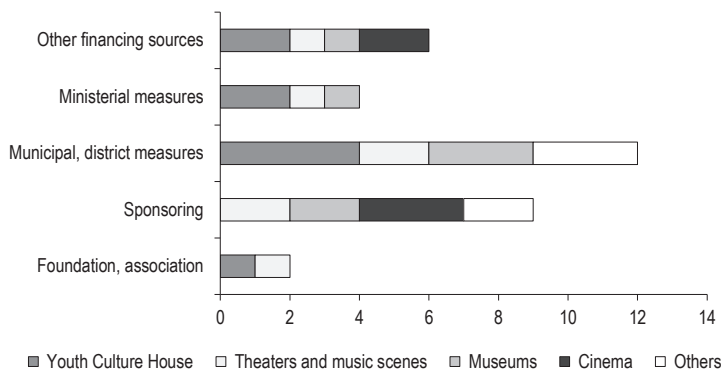


Figure 3. Entities supporting financially the institutions from individual categories in the organization of leisure forms for children at the early school age (multiple choice question)

Source: own study, Wrocław 2014.

The second most common indication was the support on the part of the so-called sponsorship (9 indications). Opel Vivaro Wrocław, the RAGTIME Wrocław music store, Aquapark, Projekcja EDU, Hasta Wholesale, Słodkie Czary Mary, Dot Wholesale, Dagny Wholesale, ZOO, PSS Społem, Astrum Publishing House, czas dzieci.pl, przedszkola.edu.pl and Nordea Company were among the sponsors.

They were followed by other sources of funding including own funds, parents' donations, Parents' Council, support of the Polish Film Institute for the project *The First Visit to the Cinema*, KGHM and the Council of the Karłowice-Różanka Housing Estate (6 indications).

Few of the respondents (4 indications) mentioned support from the Ministry of Culture and National Heritage. Only two institutions indicated support from associations, namely MDK Cultural Association at MDK "Śródmieście" and "Promyk słońca" Association.

By analyzing the answers to the question about entities supporting financially the organization of free time activities for early school children, one cannot fail to notice the dependence between the categories of institutions that the respondents come from and the indicated supporters. Youth Culture Houses benefit from the support of a variety of entities, aside from sponsoring. Theaters and music scenes benefited from financial support from a wide range of entities and sources. Museums in Wrocław showed that they largely used municipality and district funds and sponsorship as well as from ministerial measures and other sources in the next place, while leaving out entities such as foundations and associations. Cinema indicated only two categories of financial supporters: sponsorship and other sources. Institutions from other categories pointed to subsidies from municipal and district funds and from sponsorship.

Research limitation

The premise of choosing the survey method to conduct research in cultural institutions was to preserve the relative anonymity of the institution. In the pilot studies, respondents often indicated this as the condition of their consent for research. The survey method, on the one hand, makes it possible to freely express one's opinion on

a given topic, however lengthy waiting time for feedback and the lack of direct contact with a respondent constitute its shortcomings. This contact was usually limited to a temporary meeting with the director or manager of the institution when asking for filling in the questionnaire. On the other hand, the questionnaire was usually collected from a secretary. It should be noted, however, that the specificity of the issue being addressed did not require direct contact with the respondent. The limitations of the survey method did not affect the quality of results, but only on the researcher's experience (extended in the period of results collection).

Conclusions

Early school age in children is an optimal time for cultural institutions to take active part in the education of children and shaping their leisure time habits. Children's free time can be devoted to cultural participation. Cultural institutions take this fact into consideration in their activities promoting culture. As the respondents point out, the offer addressed to such a young consumer requires them to take non-standard actions generating additional cost. In particular, this problem concerns artistic institutions, whose customers are adults as a rule. In this situation it seems that external financial support can greatly facilitate the organization of the offer of a cultural institution aimed at children at the age when the acquisition and encouragement of customs and cultural styles is greatest. The results of the study allow the conclusion that the investigated cultural institutions reach for various forms of financial support in order to organize forms directed at children at the early school age. The feelings of the respondents regarding the evaluation of support received in relation to expectations are satisfactory. It would seem that the vast majority of respondents would assess financial support as insufficient. However, only half of the respondents gave it such assessment. The research allows the statement that cultural institutions usually receive additional financial support from state funds. Sponsorship is also a significant part of the financing. However, the interest of companies in sponsoring culture is increasingly noticed in social reality. Undoubtedly, the advantage is reciprocal. Institutions of culture deal with budgetary problems effectively. On the other hand, the cooperation of companies with institutions approved by the society positively influences their image. By adding the cultural institution to the *all-inclusive* package for the society, it will have the opportunity to disseminate.

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INVESTMENT RISK IN WIG30 BANK SECTOR STOCKS – ASSESSMENT OF THE APPLICABILITY OF THEORETICAL MEASUREMENT METHODS

KAMILA BEDNARZ-OKRZYŃSKA

University of Szczecin, Faculty of Management and Economics of Services, Department of Quantitative Methods, Szczecin, POLAND
e-mail: kamila.bednarz@wzieu.pl

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ABSTRACT This paper analyzes the investment risk in WIG30 bank sector stocks based on the period of 3 years from 30.05.2014 to 31.05.2017. As a part of the investment risk analysis the following were determined: basic descriptive distribution parameters, the probability of loss, *beta* coefficient and interrelated market risk and full risk. Furthermore, the risk-profit graph was created, and the coefficient of relative profit was determined. The aim of this paper is to determine certain measures of investment risk and to compare the scope of their applicability. An additional aim is to assess the applicability of theoretical distributions – the Gaussian, Laplace and GED – in modelling empirical distributions of return rates on WIG30 bank sector stocks.

Introduction

One of the fundamental issues inherent in gaining financial success is the ability to manage one's own capital. The most effective way of such management is investment. However, each and every investment is burdened with uncertainty and risk. The same holds for investing in bank sector companies, the importance of which for the Polish economy is common knowledge. And despite a noticeable decline of trust in this sector in recent years,

hardly any boom on the Polish stock exchange can be reported without strong bank stocks. Therefore, investing in the Warsaw stock market bank stocks has long been an object of interest of both stock market players and researchers (Chorkowy, Drymluch, 2008; Konarzewska, 2017; Feder-Sempach, 2011; Płowaś, 2015; Pośpiech, Mastalerz-Kodzis, 2015).

Investment decisions concerning the choice of stocks in which one wants to invest, should be preceded by the analysis of both the profitability and risk. The risk analysis based on historical data enables the application of risk measures based on statistical analysis. Along the same lines, risk measures can be divided into three basic categories: variability measures, uncertainty measures and sensitivity measures.

The classic and, at the same time, the oldest group of risk measures are variability measures. They describe the degree of dispersion of return rates around an expected value or a mean value. Sensitivity measures describe how much return rates on investment can be affected by risk factors. The aim of the sensitivity measures is to capture the relation between the value of the financial instrument and the risk factors which directly impact the value of the instrument in question.

This paper analyzes the investment risk in WIG30 bank sector stocks. In order to examine the most up-to-date data, the period of three years from 30.05.2014 to 31.05.2017 was applied. Precisely, there were three periods: Period I 31.05.2016–31.05.2017 (252 observations), Period II 29.05.2015–31.05.2017 (503 obs.) and Period III 30.05.2014– 31.05.2017 (751 obs.).

Index WIG30 has been published since 23 Sept 2013, based on the value of portfolio with shares in 30 largest and most fluid companies at the Warsaw Stock Exchange. WIG30 may contain the maximum of 7 companies representing a certain stock market sector and the share of one company may comprise the maximum of 10 percent of the index. Due to the former restriction, in the analysis of Period III, index WIG30 at first comprised Bank Handlowy, which since 19.02.2016 has been replaced by Bank Millennium. Hence both banks were included in this paper. This means that the following companies were analyzed in this work: ALIOR, BZWBK, HANDLOWY, INGBSK, MBANK, MILLENNIUM, PEKAO, PKOBP.

In the analysis of investment risk the following were determined: basic descriptive distribution parameters, the probability of loss, *beta* coefficient, interrelated market risk and full risk. Furthermore, the risk-profit graph was created, and the coefficient of relative profit was determined.

The aim of this paper was to determine certain measures of investment risk and to compare the scope of their applicability. Another aim was the assessment of applicability of theoretical distributions – the Gaussian, Laplace and GED – in modelling empirical distributions of return rates on WIG30 bank sector stocks.

Remarks about applied methods

For modeling the empirical return rates, the estimation of theoretical distribution parameters had to be carried out. For the Gaussian distribution, the parameter estimation was made by means of MLM (Maximum Likelihood Method). For the Laplace distribution, 3 methods were applied: MLM, the modified MLM, which consists in estimating the location parameter by means of the mean value, and the method of moments. For GED (Generalized Error Distribution), 3 methods of parameter estimation were used: MLM, approximation with the method of moments (Krupiński, Purczyński, 2006) and approximated moment method (Purczyński, Bednarz, 2014). The evaluation of the applicability of the theoretical distribution was performed by means of the chi square test. To determine the probability of loss, the above theoretical distributions were applied.

Basic descriptive parameters

Table 1 includes the basic descriptive statistics of the series under study. The following statistics were analyzed: average daily return (column 3), range, the difference between the largest and smallest value of return rate in the considered period (col 4), kurtosis (col. 5), skewness (col. 6), standard deviation (col. 7), semi standard deviation (col. 8) and relative profit (ratio of income to risk) (col. 9). It should be noticed that some of these statistical characteristics are useful tools for preliminary evaluation of the return rate distribution.

Table 1. Descriptive parameters of distributions of return rates on WIG30 bank sector stocks

Company	Period	Ret. rate	Range	Kurtosis	Skewness	Standard dev.	Semis.dev. $\sqrt{2} \times SV$	Rel. profit
1	2	3	4	5	6	7	8	9
ALIOR	I	0.001342	0.1771	2.108	0.416	0.02193	0.02074	0.0612
	II	-0.000354	0.2936	11.655	-1.036	0.02266	0.02344	-0.0156
	III	-0.000048	0.2936	11.162	-0.864	0.02086	0.02132	-0.0023
BZWBK	I	0.001279	0.1254	1.037	0.520	0.01965	0.01839	0.0651
	II	0.000223	0.1436	0.874	0.246	0.02135	0.02073	0.0104
	III	0.000095	0.1458	1.110	0.167	0.01980	0.01943	0.0048
HANDLOWY	I	-0.000059	0.1302	0.564	-0.160	0.02063	0.02083	-0.0029
	II	-0.000651	0.1584	1.457	-0.276	0.02191	0.02227	-0.0297
	III	-0.000523	0.1584	2.005	-0.299	0.02002	0.02036	-0.0261
ING BŚ	I	0.001590	0.1057	1.109	0.015	0.01558	0.01544	0.1021
	II	0.000556	0.1296	1.083	0.060	0.01811	0.01796	0.0307
	III	0.000393	0.1290	1.423	0.029	0.01662	0.01656	0.0236
MBANK	I	0.001544	0.2039	3.243	0.533	0.02280	0.02157	0.0677
	II	0.000101	0.2039	2.184	0.331	0.02245	0.02166	0.0045
	III	-0.000003	0.2039	2.493	0.284	0.02063	0.01999	-0.0001
MILLENNIUM	I	0.001955	0.2588	11.047	1.608	0.02378	0.02047	0.0822
	II	0.000221	0.2956	8.330	0.493	0.02336	0.02233	0.0095
	III	0.000036	0.2956	6.787	0.166	0.02289	0.02256	0.0016
PEKAO	I	-0.000177	0.1224	1.950	-0.174	0.01616	0.01642	-0.0110
	II	-0.000462	0.1224	0.749	-0.047	0.01710	0.01716	-0.0270
	III	-0.000263	0.1224	0.739	-0.067	0.01615	0.01625	-0.0163
PKO BP	I	0.001733	0.1723	3.296	0.748	0.01962	0.01800	0.0883
	II	0.000407	0.1782	2.159	0.251	0.01934	0.01880	0.0210
	III	0.000017	0.1782	2.540	0.208	0.01784	0.01740	0.0010
WIG	I	0.001116	0.0716	2.320	-0.433	0.00908	0.00936	0.1229
	II	0.000205	0.0871	2.859	-0.538	0.00979	0.01018	0.0209
	III	0.000231	0.0871	3.033	-0.487	0.00897	0.00928	0.0258
WIG 30	I	0.001122	0.0778	1.320	-0.182	0.01069	0.01079	0.1050
	II	0.000033	0.0951	1.772	-0.291	0.01138	0.01162	0.0029
	III	0.000067	0.0951	2.049	-0.269	0.01036	0.01054	0.0065

Source: author's own study.

The presented measures were derived on the basis of the formulas included in paper (Tarczyński, Mojsiewicz, 2001; Tarczyński, 2002). Range is a measure which helps to evaluate the equity risk in a relative way. By interpreting the range, one may say that the widest interval containing the return rate means potentially the chance for the

largest profit, but also the highest risk. The data presented in the table shows that in Periods II and III, the widest range was obtained by the return rates on MILLENNIUM, ALIOR and MBANK stocks.

Kurtosis is a measure which describes the unevenness of the lay-out of the general sum of values among particular individuals. By determining the mean of kurtosis, we obtained $K = 3.157$. This value is closer to the kurtosis for the Laplace distribution, $K_L = 3$, than to the kurtosis for the normal distribution, $K_N = 0$. Hence it can be concluded that the Laplace distribution will be more useful in modeling empirical distribution of return rates on stocks and indices than the Gaussian distribution. Considering Col. 3 for Period I, the companies may be arranged in decreasing order of the value of the average daily return: MILLENNIUM, PKOBP, INGBSK, MBANK, ALIOR, BZWBK, HANDLOWY, PEKAO. However, for Period III the following sequence can be observed: INGBSK, BZWBK, MILLENNIUM, PKOBP, MBANK, ALIOR, PEKAO, HANDLOWY.

As for the risk measured with the value of the standard deviation, for Period I, the sequence of the companies in order of increasing value σ is as follows: INGBSK, PEKAO, PKOBP, BZWBK, HANDLOWY, ALIOR, MBANK, MILLENNIUM. For Period III the sequence of the companies in order of increasing σ is as follows: PEKAO, INGBSK, PKOBP, BZWBK, HANDLOWY, MBANK, ALIOR, MILLENNIUM.

Standard deviation is a basic measure of the risk of investment in securities. As regards the standard deviation of stocks, risk is determined by deviations of possible returns from expected returns. When adopting this way of risk evaluation, positive and negative deviations are equally treated. Therefore a more precise measure used to determine risk is semi standard deviation, which indicates how much possible returns deviate on average from expected returns as a result of unfavorable market situations.

Comparison of standard deviations with semi standard deviations derived for the same data may serve as the information whether the distribution of the analyzed return rates is symmetrical. If the return rate distribution is symmetrical, the standard deviation is larger the square root of 2 times than the semi standard deviation. In the case of a symmetrical distribution, there is a larger probability that the distribution of the return rate on a security is normal or close to normal.

Skewness coefficient informs about a degree and direction of the skewness of the distribution. It takes the value of zero for the symmetric distribution, negative values for the left skewed distribution, and positive values for the right skewed one. The right skewed distribution is beneficial for investors since it denotes larger probability of a higher return rate than the average value determined for the whole project (Bednarz-Okrzyńska, 2016).

Modeling empirical return rates

As a result of calculations, it was observed that for the thirty cases included in Table 1, the positive result of the chi-square test was obtained: for the normal distribution – 17 times, for the Laplace distribution – 23 times, and for the GED – 25 times. This means that the Laplace distribution is more useful in modeling the empirical distribution of return rates on bank sector stocks than the Gaussian one. Still GED proved slightly better than the Laplace distribution.

Due to the publishing limitations imposed on the paper, the results are not presented in the form of a table.

Beta coefficient and equity risk based on the Sharpe model

A classic tool used in risk analysis is the Sharpe model (Tarczyński, Witkowska, Kompa, 2013).

In the model, a linear regression of the following form is assumed:

$$R_t = \alpha + \beta \times RW_t + \varepsilon_t,$$

where:

- R_t – return rate for a stock,
- RW_t – WIG index return rate,
- α, β – coefficients,
- ε_t – random element.

The above formula shows that if return rate RW_t increases by 1%, return rate R_t increases by $\beta\%$.

From Table 2 the highest value of the coefficient $\beta = 1.497$ can be found for MILLENNIUM. This means that the change in the value of the return rate of WIG index by 1% results in the change in the value of the return rate for a given stock by 1.497%. If $\beta > 1$ than the stock is aggressive and if $\beta < 1$ than the stock is defensive. The table shows that only one stock is defensive, that is INGBSK where $\beta = 0.8952$. All the other stocks are aggressive. The smallest value of β characterizing INGBSK results in the smallest value of the market risk (see Table 2). Respectively, the highest value of β for MILLENNIUM results in the highest value of the market risk (Table 2).

Table 2. The beta coefficient and equity risk based on the Sharpe model

Company	Coefficient β	Market risk	Specific risk	Total equity risk	Coeff. of determination ρ^2
1	4	5	6	7	8
ALIOR	1.2246	0.01098	0.01775	0.02088	0.278
BZWBK	1.4283	0.01281	0.01511	0.01982	0.419
HANDLOWY	1.3025	0.01168	0.01628	0.02004	0.341
ING BŚ	0.8952	0.00803	0.01458	0.01665	0.233
MBANK	1.4361	0.01288	0.01613	0.02064	0.390
MILLENNIUM	1.4970	0.01343	0.01856	0.02291	0.345
PEKAO	1.1714	0.01051	0.01227	0.01616	0.424
PKO BP	1.4630	0.01312	0.01209	0.01785	0.542
WIG 30	1.1422	0.01025	0.00148	0.01036	0.980

Source: author's own study.

Risk-profit graph

Another classic tool used in risk analysis is a risk-profit (R-P) graph. Figure 1 depicts such an R-P graph for Period III (fig. on the left) and for Period I (figure on the right) including the five companies which turned out best in the R-P graph. The following labelling was used for average daily return: EW-WIG, EBZ-BZWBK, EING-INGBSK, EMB-MBANK, EMIL-MILLENNIUM, EPKO-PKOBP.

Analogous labeling was applied for standard deviation σ .

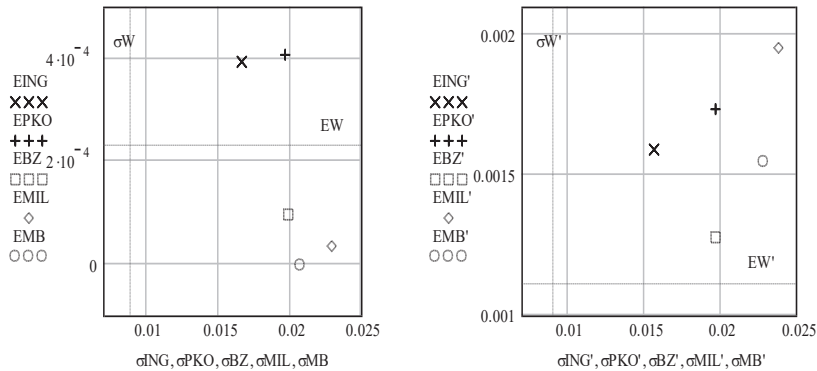


Figure 1. R-P graph for the following companies: INGBSK, PKOBP, BZWBK, MILLENNIUM, MBANK

Source: author's own study.

Figure 1 on the left refers to Period III (3 years). INGBSK (marked with x) turns out to be the most profitable – the mean is slightly smaller than that of PKOBP (marked with +), but its standard deviation is significantly smaller. Out of the other three companies, the largest profit is provided by BZWBK (marked with rectangles). The last two companies hold a similar position: MILLENNIUM (diamonds) has a slightly larger profit at a slightly higher risk than MBANK (circles). Figure 1 on the right refers to Period I (a year). MILLENNIUM could be recommended to people fond of risk, since it provided the highest profit but at the highest risk. The next company, INGBSK, in comparison with the former one, brings smaller profit but at the substantially smaller risk, so it could be recommended to people who like to play it safe. The two subsequent companies are: PKOBP and MBANK. The smallest profit is brought by the stocks of BZWBK.

According to the figures representing R-P graphs, the location of a company depends on two variables: mean and standard deviation of a return rate. The parameter which takes into account these two variables is the coefficient of relative profit, given by the formula (Tarczyński, Mojsiewicz, 2001):

$$W = E/\sigma.$$

By sequencing the companies in order of decreasing value of relative profit coefficient (Table 1, col. 9), a similar sequence to the one resulting from the R-P graph is obtained.

This means that instead of making R-P graphs, the evaluation of companies can be made in a much simpler way, namely, by using the relative profit coefficient.

Conclusions

As a part of the analysis of the results presented in Table 1, the companies were sequenced in order of increasing value of standard deviation sigma. By taking into account that sigma is quite stable and is a certain characteristic feature of a company (it should be assumed that it will not change significantly within the following year), it can be used to describe companies in terms of a small or high risk. However the R-P graph, apart from standard deviation, includes also the mean value of return rate (profit). Conclusions, similar to those based on the R-P graph, can be also drawn from the analysis of the relative profit coefficient. The results presented in Table 2 show that the only bank that proved to be a defensive company was INGBSK ($\beta = 0.8952 < 1$). All the other banking

companies proved to be aggressive ($\beta > 1$). Thereby INGBSK ensures the smallest market risk among all the companies under study. Hence, the company is recommended to cautious investors.

As a part of the analysis of risk measurement tools, the probability of loss was determined for the bank sector companies as the integral of the probability density function of the theoretical distributions: Gaussian, Laplace and GED. Yet it would be unlikely to recommend this risk measure to an investor in bank sector companies for two reasons: calculations involve determining the value of an integral, and the diversity of the determined values is limited. For example, for the eight companies under study the probability of loss fell within the interval [0.427; 0.532], which results in the ratio of the highest value to the smallest one equal 1.246. However the standard deviation fell within [0.01558; 0.2378], hence $\max/\min = 1.526$. Still larger differentiation can be observed for $\beta \in [0.8952; 1.497]$, which amounts to $\max/\min = 1.672$.

In view of the conducted study of certain investment risk measures, two measures can be particularly recommended: residual standard deviation and coefficient β . It stems from a more stable behavior of these measures compared to others.

As a result of modeling empirical distributions of return rates on WIG30 bank sector stocks it was concluded that the Laplace distribution is more useful than the normal one. Besides, slightly better results of approximation of empirical return rate distributions by means of GED were observed, compared to the Laplace distribution. However, considering the computational complexity of estimation of GED parameters, it is advisable to model empirical distributions of return rates on the analyzed stocks by means of the Gaussian or Laplace distributions.

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SOCIAL MEDIA IN THE MARKETING COMMUNICATION OF POLISH BANKS

AGNIESZKA BUDZIEWICZ-GUŹLECKA,¹ MARIUSZ WOŹNIAKOWSKI²

¹ University of Szczecin, POLAND
e-mail: agnieszka.budzewicz@wzieu.pl

² University of Lodz, POLAND
e-mail: mariusz.wozniakowski@uni.lodz.pl

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ABSTRACT

Social media are one of the most flexible and dynamic tools of the Internet, which stems from the fact that they offer bidirectional communication. They enable banks to individualize the process of marketing communication and conduct the kind of communication with clients on the market that resembles a dialog. The aim of this article is to identify social media in the marketing communication of banks in Poland. This article presents the essence of these media to subsequently focus on the role of social media in the activity of banks. It also verifies the scope of using social media by major banks. Further, it analyzes the contents of websites and social media profiles of the banks included on „The 500 List” („Lista 500”) of the largest Polish businesses. The list features 19 banks. This particular ranking has been applied due to the fact that large banks often pioneer the implementation of new methods of communication, including the use of social media. They also have appropriate resources to conduct communication activities on a large scale. The results of the analysis of website contents and social media profiles of banks have been presented in the article.

Introduction

Social media enable banks to individualize the process of marketing communication and conduct the kind of communication with clients on the market that resembles a dialog in a way that was previously unheard-of. Social media create a virtual image of an organization and help build lasting relations with clients. The aim of this article is to attempt to identify social media in the marketing communication of banks in Poland. The article puts forward

the following research hypothesis – Commercial banks operating in Poland actively use social media in the process of marketing communication. In reference to the aim and hypothesis adopted in this article, the following research question has been posed – Which banks in Poland pioneer the implementation of new methods of communication, precisely speaking, social media? In an attempt to answer this question, the article first reflects on the essence of social media. Further, it presents the role of social media in the activity of banks, particularly their marketing communication. Subsequently, it illustrates the results of the analysis of website contents and social media profiles of banks. Finally, it discusses distinctive activities of banks in social media.

The essence of social media

The Internet is the engine of today's economy as it allows businesses to build relations and develop world-wide (Drab-Kurowska, 2013, p. 302). The expansion and ever-increasing access to the Internet world-wide renders it one of the first sources when seeking information in the 21st century (Cabosky, 2016, p. 172). The frequency of using the Internet is also affected by the growth of social media, which play a major role in the transference of information about products between users.

The growth of social media is a key element of the sharing economy. They taught people to communicate quickly, effectively and easily with one another via the web (Budziewicz-Guźlecka, 2017, p. 36). It should be highlighted that any media and on-line networks enable Internet users to integrate via their individual participation.

Due to their nature, functionality, interactivity, versatility, innate potential and their ability to satisfy various needs of different groups of recipients, social media constitute a crucial platform of marketing communication in the virtual environment (Wiktor, 2013), including that applied by the banking sector.

As previously noted, social media enable communication and exchange of information with other net users. Social media, as any term in literature, is defined in a number of ways:

- a) by Kaplan and Haenlein, as a group of applications based on Internet solutions. They are the ideological and technological foundations of Web 2.0 which enable the creation and exchange of contents generated by users (Kaplan, Haenlein 2010, p. 59);
- b) a convenient and useful way of building interactions and cooperation with Internet users in the area of generating new information and gaining knowledge (Levy, 2009, p. 120);
- c) a set of nearly free tools and Internet websites that allow a given community to generate contents and conduct a dialog on-line (Levinson, Gibson 2011, p. 17).

McQuail, on the other hand, suggested the term new media, and presented a list of features defining them as such. They include (McQuail, 2007):

- interactivity – determined by the recipient's reaction to the sender's offer. High interactivity means bidirectional communication,
- social presence – a sense of personal contact with others. Its high level is affected by the physical closeness and immediacy of communication,
- abundance – decides about the degree to which a medium is able to reduce the ambiguity of a message. The more information a medium is capable of communicating in a given time, the more abundant it is,
- autonomy – a substantial degree of independence from the sender and the ability for one's own interpretation of a message,
- playfulness – focus on entertainment and pleasure rather than usefulness,

- privacy – their use is not purely instrumental but is often of emotional nature,
- personalization – adjusting the message to the recipient.

The role of social media in the activity of banks

Competitiveness of banks is identified with efficiency, productivity and effectiveness. Competitiveness, aside from numerous other factors, is influenced by banks' use of social media.

The society's digitalization results in an increasing role for retail banking. Clients tend to change banks or use the services of more than one financial institution. Consumers expect products to be adjusted to their individual needs. They are willing to divulge more personal information to banks in order to obtain more personalized services. Along with technological development, banks can use information which they have about their clients to create new products. Big data, social media, location-based services – these are the new tools which financial institutions must learn to apply.

The key benefits from using social media by banks include (Social Banking, 2014, pp. 6–9):

- reaching a greater number of clients and obtaining information about them,
- obtaining feedback from consumers (about an offer, a bank's image or its employees, etc.), and along with that, improving service quality,
- the opportunity to adjust the product range to users' life situation,
- the opportunity to improve the product range depending of consumers' opinions, preferences and needs,
- obtaining from clients ideas on innovative solutions and new directions for an organization to explore,
- the opportunity to conduct marketing campaigns while simultaneously reducing their total cost,
- an increased operating radius of banks and the opportunity to promote bank products,
- the opportunity to build a positive image based on clients' positive opinions,
- building customer loyalty.

The development of social networks and other channels of communication affords banks unlimited possibilities to interact with individual groups of stakeholders. The development of new technologies and the association of various socioeconomic fields are heading in the direction of engaging participants in co-deciding and co-creating. Social media and the principles of their operation are based on functionality and reach.

The mistakes committed by banks when using social media include:

1. Laziness – currently, social networks are starting to resemble the same channel of obtaining information by clients as call centers. If a bank neglects to answer a question posed on its fan page, it means ignoring a client.
2. Lies – if a bank is indeed experiencing a system failure, the worst solution is to pretend that it is not. It is not a wise move to marginalize the problems of an individual.
3. A lack of knowledge – it happens that when a client asks a specific question regarding a product and is given the wrong information; they can quickly identify that. The assumption that a client knows less than an administrator of a bank's website is completely wrong – a lot of clients are trying to stay up to date with bank offers and are well-informed about them. Communicating to them that they know less in that area may have a detrimental impact on the reception of the brand.

4. A lack of accountability – referring clients to other information channels. If a social channel is viewed as equal to a telephone one and banks are trying to present it as a source of information and direct contact, they should minimize the risk where the profile administrator refers a client somewhere else for information.
 5. Excessive graphics and advertisements.
 6. Profusion – banks should also not overdo contests as the client specificity of the banking market does not approve of wasting financial means.
- For safety reasons, banks cannot move all functions of a call center to social media.

Social media in Polish banks – research analysis

According to the data of the KNF (Financial Supervision Authority) (https://www.knf.gov.pl/?articleId=56224&p_id=18), at the end of the year 2017, 35 commercial banks and 533 cooperative banks operated in Poland. Due to the volume restraints, only the scope of using social media by the largest banks has been verified for the purposes of this study. It analyzes the contents of websites and social media profiles of the banks included on „The 500 List” of the largest Polish businesses (the compilation features 19 banks), published by the Rzeczpospolita daily in April 2017. The research, conducted between 20–22 February 2018, consisted of 3 stages. First, it was checked which social media were directly linked on banks’ websites (e.g. in the form of social plugins, classic hyperlinks, etc.). The findings are illustrated in Table 1.

Table 1. Bank profiles in social networks (as of 22.02.2018)

No.	Rank on „Lista 500”	Name of the bank	Website’s address	Social media plugins on the banks’ websites				
				Facebook	Instagram	Twitter	YouTube	other
1	13	PKO BP	pkobp.pl	1	(1)	1	1	1
2	34	BZ WBK	bzwbk.pl	1	1	1	1	1
3	38	Pekao SA	pekao.com.pl	1	(1)	(1)	1	–
4	61	mBank	mbank.pl	1	1	1	1	1
5	63	ING Bank Śląski	ingbank.pl	1	1	1	1	1
6	92	Alior Bank	aliorbank.pl	1	–	1	1	–
7	94	Bank Millennium	bankmillennium.pl	–	(1)	1	1	1
8	106	Getin Noble Bank	getinbank.pl	1	1	–	1	1
9	108	BGŻ BNP Paribas	bgzbnpparibas.pl	1	–	–	1	1
10	142	Bank Handlowy w Warszawie	citibank.pl	1	–	1	1	–
11	146	Credit Agricole Polska	credit-agricole.pl	1	1	–	1	1
12	148	Raiffeisen Polbank	raiffeisenpolbank.com	1	–	1	1	1
13	205	Bank Gospodarstwa Krajowego	bgk.pl	1	–	1	1	–
14	214	Idea Bank	ideabank.pl	1	1	1	1	1
15	241	Deutsche Bank	deutschebank.pl	–	–	–	(1)	–
16	293	Eurobank	eurobank.pl	1	1	1	1	–
17	325	Bank Ochrony Środowiska	bosbank.pl	1	–	1	(1)	1
18	470	Bank BPS	bankbps.pl	1	–	(1)	1	1
19	500	SGB-Bank	sgbbank.com.pl	–	–	–	(1)	–
Total				16	7 (10)	12 (14)	16 (19)	12

Explanatory notes: 1 = a profile accessed via a social plugin on the website; (1) = a profile searched via Google browser (no plugin on the company website).

Source: own study.

In the second stage, if there was no direct link to any profile in social media in the structure of the company website, it was searched via Google browser by typing a suitable phrase, e.g. mBank Instagram, Idea Bank Twitter, etc. Such a mode of searching for profiles was applied to the four most popular social networks: Facebook, YouTube, Instagram and Twitter.

In the third stage, the previously identified profiles in social networks or other media (e.g. blogs) were analyzed with respect to the contents. Only profiles in Polish were considered due to the target recipient – a client on the Polish market. It was checked whether profiles were regularly updated, how frequent were the publications and what the tone of communication was (e.g. commercial – an offer presentation, press communiques, education, etc.).

Table 2. The characteristics of bank profiles in social networks (as of 22.02.2018)

No.	Name of the bank	Name of social network							
		Facebook		Instagram		Twitter		YouTube	
		total number of likes	total number of followers	total number of posts – tweets	total number of followers	total number of posts – tweets	total number of followers	total number of subscribers	the number of views of the most popular video
1	PKO BP	113,836	111,118	43	1,005	5,103	4,611	3,503	1,919,687
2	BZ WBK	287,045	279,731	438	967	5,846	16,700	4,902	1,406,598
3	Pekao SA	58,952	58,731	2	284	44	311	743	1071,602
4	mBank	298,145	290,272	212	2,631	10,400	11,800	7,745	3,824,210
5	ING Bank Śląski	222,439	218,089	207	4,219	5,029	17,000	65,277	3,412,540
6	Alior Bank	90,971	88,479	–	–	1,776	8,717	2,283	1,346,644
7	Bank Millennium	–	–	65	580	2,109	1,791	3,883	3,012,393
8	Getin Noble Bank	37,156	36,471	–	–	–	–	2,851	1,236,099
9	BGŻ BNP Paribas	209,570	204,186	–	–	–	–	1,867	1,747,698
10	Bank Handlowy w Warszawie	145,061	139,662	–	–	2,950	5,167	1,240	4,169,765
11	Credit Agricole Polska	33,250	32,804	19	504	–	–	1,061	1,214,769
12	Raiffeisen Polbank	37,798	37,332	–	–	93	124	658	1,246,434
13	Bank Gospodarstwa Krajowego	3,435	3,527	–	–	1,472	1,061	38	1,443
14	Idea Bank	101,109	99,104	521	132	3,315	7,698	844	1,158,504
15	Deutsche Bank	–	–	–	–	–	–	65	247,549
16	Eurobank	61,837	61,143	182	502	1,016	678	1,571	2,150,855
17	Bank Ochrony Środowiska	9,098	9,187	–	–	711	2,148	32	2,644
18	Bank BPS	13,313	13,250	455	117	1,003	323	106	63,670
19	SGB-Bank	–	–	–	–	–	–	333	lack of content

Source: own study.

Out of 19 analyzed banks (and the same number of websites), 17 had plugins to their profiles in social networks in the structure of their website (a detailed index is included in Table 1). 16 websites had redirections to Facebook and/or Youtube, 12 – to Twitter, and 7 – to Instagram. In 12 cases, there were also redirections to other social media: 11 to LinkedIn (except for mBank), 5 to a company blog (PKO BP, WBK, ING, Getinbank, Credit Agricole), 2 to a discussion forum (mBank, ING), 1 to GoldenLine (PKO BP), 1 to NK.pl (WBK) and 1 to WBK’s own social network

– the Bank of Ideas (Bank Pomysłów). Following the implementation of the second stage of the research, further bank profiles in social networks were identified (the company website offered no links to them): 3 to Instagram and YouTube, and 2 to Twitter. Ultimately, there was no bank that did not have at least one company profile in a social network. However, their distribution was surprising. While all the analyzed entities had a channel on YouTube (although SGB-Bank's had no content), only 13 banks had a profile on the most popular social network in the world – Facebook. There were 14 profiles on Twitter and 10 on Instagram. According to the research methodology adopted, further profiles in other social media were not searched, hence, their status remained unchanged.

The Facebook profiles identified in the research were regularly updated. They primarily included the following contents: bank offers (e.g. a promotional interest rate of savings accounts, loans, etc.), organizational issues (e.g. disrupted access to electronic banking), information about sponsorship activities or other operations related to corporate social responsibility, promotion of new forms of payment (e.g. Blink), safety measures with electronic banking, and encouragement to regular saving (e.g. interesting publications of Getinbank – webinars on the psychology of saving). In an attempt to activate Internet users, surveys were used, e.g. a question from PKO BP: „Holiday in Poland or abroad?“, encouraging the profile's fans to discuss. On Fat Thursday, BZ WBK asked its followers about their preferences: donuts or angel wings? This question was tagged with the following note: „Regardless of your choice, remember that you can pay for your sweets with your mobile“.

Interestingly, the size of the bank had no impact on the number of Facebook followers. Table 2 presents the combined number of likes and followers on all identified profiles in the network. mBank has the most fans whereas the largest Polish bank – PKO BP, ranks 6th in terms of the number of fans.

14 banks have a profile on Twitter. Due to the nature of the network itself, predominant posts (tweets) are short communiques. This network is most frequently used to communicate with investors or journalists rather than clients themselves. There are also repeats of many contents from Facebook. mBank has the most publications in this network (101,400 tweets), while ING Bank Śląski has the most followers – 17,000 (a detailed index is included in Table 2).

All the researched banks had their channels on YouTube. In the case of a presence in this network, the number of subscribers of a given channel mattered less (ING Bank Śląski has the most) than the range of clips measured, among others, in the total number of views. The most frequently watched clip was published by Bank Handlowy w Warszawie – with over 4 million views. All the channels where clips had been uploaded were divided into topical playlists. These mainly covered topics such as: home finances, electronic banking instructions, promotion (advertising spots familiar from television, at times in an extended version), or the CSR. Some banks have found another use for YouTube. For instance, Bank Millennium uploads broadcasts from the board's press conferences on the presentation of financial results, among others (these clips are twenty-something minutes long). Bank Ochrony Środowiska, on the other hand, has a corporate foundation channel. BZ WBK adjusted a section of their clips to the needs of people with various disabilities: for the deaf using sign language clips with an interpreter, for the deaf with subtitles, for the visually impaired clips with an embedded audio description.

10 banks had profiles on another analyzed social network, Instagram. Idea Bank had the most published posts (521) whereas ING Bank Śląski had the most followers (4,219). In the case of Instagram, it is vital to focus on the visual aspect that would be less invasive in terms of commercial contents. Hence, it often features posts related to sponsorship or other CSR activities as well as contests. Two profiles stand out in this network. Idea Bank presents the Idea Hub project – the idea of co-working – a shared office space for the bank's clients which is available

in 6 cities (Warsaw, Łódź, Kraków, Wrocław, Poznań and Katowice). Credit Agricole Polska, on the other hand, promotes its Discount Club (Klub Rabatowy Banku Credit Agricole) via its profile @klubrabatowy – the clients can get discounts in over 10,000 places in Poland if they pay using the bank's card.

It is worth mentioning two cases among other activities of banks in social media. The first one is the PKO BP project – School Blogs (szkolneblogi.pl). It is a blogging platform for school saving banks which elaborates on the idea of the program dedicated to schools, announces contests and presents interesting facts from „the world of kids' finances”. When the publication was being drafted, the platform included 742 blogs. In the second case, BZ WBK created its own social network – the Bank of Ideas (bankpomyslow.bzwbk.pl). The network is dedicated to the bank's clients who have ideas on how to improve their bank. One can submit their ideas, comment on others as well as win prizes for the best ideas. It is an interesting initiative in that the bank, aside from interacting with its clients, gets a number of interesting ideas for free which it can later implement in order to raise the quality of its services.

Summary

The conducted research has illustrated that the largest banks operating in Poland use social media quite actively in their communication with individual groups of stakeholders, and primarily with their clients. From the point of view of marketing communication, one can learn about these profiles via the company website (dedicated plugins) or from various other profiles thanks to cross-media activities. The most common mistake was too many promotional posts and too few activities aimed at an interaction with clients. The rule 70–20–10 may be useful here, where 70% of the content should feature information valuable to fans, 20% links to the contents generated by other users, and only 10% should be information about promotions and commercial contents (Adamiec, 2016). Despite these issues, it can be concluded that banks are trying to use the potential for social media in building relationships with clients, which is illustrated by numerous non-standard initiatives implemented by a section of the institutions.

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MAJOR TRANSFORMATIONS OF THE 21ST CENTURY LOGISTICS AND THEIR IMPLICATIONS TO THE LOGISTICS MAHAGEMENT

ANDRZEJ BUJAK,¹ JOANNA NOWAKOWSKA-GRUNT,²
LUBICA HARAKALOVA³

¹ Wyższa Szkoła Bankowa we Wrocławiu, Wydział Finansów i Zarządzania, Instytut Logistyki, POLAND
e-mail: andrzej.bujak@wsb.wroclaw.pl

² Czestochowa University of Technology, Faculty of Management, Institute of Logistics and International Management, POLAND
e-mail: jng@zim.pcz.pl

³ Economic University of Bratislava, Faculty of International Relations, Department of International Economic Relations and Economic Diplomacy, SLOVAK REPUBLIC
e-mail: lubica.harakalova@euba.sk

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ABSTRACT

The modern world and logistics is subject to constant transformations. The dynamics of these changes continues to increase thus affecting the efficiency and effectiveness of current concepts and logistics solutions. There are new needs and new opportunities that dictate the need for a new view and constant transformations of logistics concepts and operations. The logistics expertise is becoming outdated, especially in the aspect of the implementation of operational activities. This situation generates a need to introduce a comprehensive and innovative solutions that would stay ahead of the time of action. New perspectives of logistics management is the challenges for the future logisticians. Workers and managers in the logistics industry face new challenges, which also imply other than the long-term perspectives of enterprises.

Forecasting the development of logistics is neither easy nor simple, it requires not only to perceive new prospective circumstances and challenges for logistics, but also their multifaceted analysis, understanding of mutual implementation and impact. Despite the extremely large scale of difficulty, this seems to be a necessary action, not only because of the growing competitiveness in global markets, but mainly because of the requirements posed by the modern world for the leaders of logistics. We may not be able to predict exactly all conditions of functioning of logistics, but we can sensitize the future logistics managers to them, and indicate expectations of their knowledge, competence and the ability to cope in new dynamically changing conditions of logistics functioning.

The empires of the future are the empires of the mind.
Winston Churchill

Introduction

Because of its importance in the economy logistics must still evolve to meet the demands of modern business and adapt to the dynamic changes in the economic environment. Globalization and networking as well as growing virtualization of contemporary economy place in front of it a number of new challenges and needs, set new directions and trends of changes in the current and prospective conditions. In addition, the development of a variety of technologies generates not only new opportunities, but also is, to a large extent, conducive to the development of logistics enterprises. The changes in this area are taking place virtually before our eyes. The logisticians of present as well as future will design and perform tasks with optimal crossing of time and space so that the delivery is made in accordance with the expectations of the client, using for this purpose the latest techniques and the latest technologies. The knowledge about the latest concepts and solutions and their correct implementation to support such efforts within company's operations becomes one of the essential elements of success in current and prospective market conditions.

The aim of the article is to synthetically present selected trends and directions of the development of logistics with a focus on the role of innovation in its development, including the implementation of the latest technology and information and communication technologies. The presented content is also to indicate the need and directions of changes in a broadly understood system of logistics education which should educate future logisticians so that they have adequate knowledge, skills and abilities that allow them to act effectively in the new, dynamic and prospective conditions of functioning of logistics.

To predict the future, a variety of techniques and tools are used, together with a selection of theoretical approaches. However, the forecast is always rooted in what we know about the past, in observed trends and in what we know about the future. We have specific experience, habits, and our thinking is dependent on a particular perspective, according to which we have learned to perceive the world. However, our perception is often too one-sided and should be supplemented or confronted with the concepts of other authors, which is also the situation in the case of this article. Presented forecasts are also the result of multi-criteria assessment of the changes that occur in various areas of our life, especially related to the development of new technologies. The final effect of the presented considerations was also significantly affected by conversations with representatives of Polish science as well as practitioners.

Formal circumstances

We think about the future mainly in the context of achieving goals or constructing development plans. In the first case, this means, most often, very short time horizon, and a little longer one in the second case, however, the practise shows that we rather do not exceed beyond 2020. Meanwhile, today one can see changes in the social and economic sphere of our life that are signs of future permanent changes in a much longer term, the best example of which are projected demographic changes related to the ageing of society.

Forecasting for a few years ahead is a difficult and often a daunting task, because we live in the age of technological and scientific revolutions, in which the rhythm of new developments and discoveries is constantly

accelerating. Over the last several decades more knowledge has been accumulated than during the entire history of mankind. By 2100, this knowledge will again be multiplied (doubled) (Kaku, 2011). It is worth to note this fact, because according to to-date experience, future forecasts, with a few exceptions, have never properly valued the growth of technological processes.

Despite the fact that the history of science teaches how dangerously it is to make any assumptions about the future, they are still necessary, for at least two reasons.

The modern logistics must not only continuously and quickly respond to the still emerging new needs and challenges, but also make full use of emerging possibilities. The pace of changes, the scale of needs and expectations result in the need for a completely different changes in thinking about logistics, its objectives and the ways of how to implement tasks. Logistics must not only keep up with the changes, but in many cases stay ahead of them, generating a kind of new solutions, concepts and ways of action, which will fully satisfy the new expectations and needs, particularly in the area of the new requirements of the potential customers. It should also be noticed that the logistics in a wider aspect is directly and indirectly affecting the economy and the transformations undergoing in it (Coyle, Bardi, Langley, 2003), and thus generate new challenges for itself.

Secondly, the predictions of the development of logistics are necessary for a proper preparation of logistics personnel for present and prospective tasks. This is a very important, and, at the same time, complicated and difficult problem. It requires taking into account multiple analyses and actions that will help to prepare professional, active, innovative and committed employees (Harakalova, 2014). An essential and an extremely important part of this issue is the concept of education at universities. The prospect of students' graduations within three years (I-level studies) or within next five years (I and II level studies) must raise a number of questions such as shown in Figure 1.

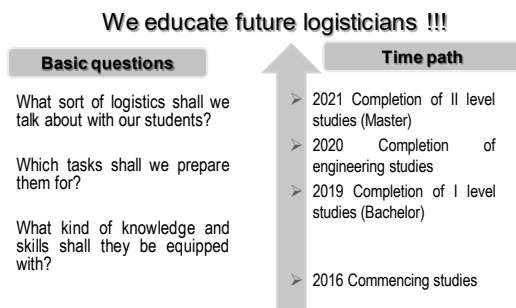


Figure 1. Time axis – education of logistics managers

Source: own study.

It should be also indicated that the overriding condition of the success in the context of upcoming new conditions and transformations is the time and the pace of the introduction of pragmatic changes in the functioning of logistics. Time must be properly seen and used. Consequently, the preparations for the expected changes or long-term trends shall be commenced today. In this case, it seems that the following thesis sounds factual: the sooner we start to foresee these effects and detect their symptoms, the better we can prepare for them, and,

consequently, minimise the potential risks or, given a good market situation, succeed thanks to the right preparation of personnel, structures and activities in multi-variant terms.

Selected modern circumstances of development of logistics

The modern concept and perception of logistics is the successor of different aspects, concepts and solutions. The continuous development of ways and concepts of implementation of logistics tasks is clearly noticeable. Also, their scope is constantly expanding together with their scale of complexity and dynamism of the processes as well as the scope and the way of using and implementation of increasingly sophisticated tools resulting from technological and technical development in the field of operational, tactical and strategic activities at local, regional and global levels. They must generate such capabilities, which will allow effectively meet the challenges of the present and prospective circumstances.

Today, many of these concepts involve “megatrends” of the development of logistics, which are the result of ongoing changes in the global economy. “Megatrends” can be defined as constant economic, social, political and cultural trends or phenomena arising in the process of civilization development of society, with various conditions affecting the humanity beyond national borders and continents, embracing the whole globe and determining the main directions and objectives of the perspective development of humanity (Dressler, 2004). In terms of logistics, the concept of “megatrend” shall be defined as the force which is fundamentally changing the way the logistics operators function, their way of acting, competing. It is also referred to as an important direction, tendency or force that appears either globally or locally and has a chance to act in the future, which has a significant impact on almost every aspect of the functioning of the societies and logistics itself.

In the presented conception the megatrends affecting the development of logistics can be viewed in the overall socio-economic (civilization) terms as well as in terms of industry, in our case logistics. However, this division is blurred and many items will complement and penetrate each other, generating specific feedback of various megatrends.

The first group of civilization megatrends shall certainly include those that were pointed out by John Naisbitt (1988). The author indicated 10 emerging new megatrends – deep changes that will take place in the future:

- from the industrial society to the information society,
- from power technology to the ultra-technology/ultra-contract,
- from the national economy to the global economy,
- from short-term thinking to long-term thinking,
- from centralisation to decentralisation,
- from institutional support to self-help,
- from representative democracy to participatory democracy,
- from hierarchy to network,
- from North to South,
- from “either-or” format to multiple choice.

M. Tinnilä, on the other hand, distinguished six major megatrends and their impact on the lives of societies (2012):

- changes in the age structure of the population as well as ongoing urbanization processes,
- transition of societies towards 24-hour access to goods, services and consumption,

- all-pervasive use of ICT,
- expansion of the power of consumers due to the availability of information in networks,
- e-commerce, e-shopping and the expansion of mobile services,
- globalization of business, which is the result of structural changes caused by the competition, including business services.

They are complemented by seven megatrends which, in the opinion of their authors, significantly affect the development of directions of transformations in logistics both in terms of required capabilities and new directions of development. These are the megatrends as follows (Ministry of Transport and Communications, Helsinki, 2006):

- still increasing influence of the environment,
- transformations in terms of models of the development of logistics services,
- increasing impact of modern and innovative technologies,
- changes within existing corporations and companies,
- future demographic changes,
- global competition,
- projected cultural changes.

One of the most modern megatrends, which will determine the direction companies act, including logistics, now and in the future, were presented by J. Riedl, H. Farag, D. Korenkiewicz, and they include (2014):

- a) changes in the location of business centres; Asian and African countries still gain the importance, due to the trend of regionalization accompanying globalisation – Eastern Europe;
- b) globalization and regionalisation occurring in parallel as a response to the changing economic environment and turbulences which take place in the global economy to varying degrees in different countries;
- c) the growth of urbanization, it is expected that by 2050 over 70% of the world society will be living in cities;
- d) growing environmental movement, increasing importance of the sustainable development in the strategy of enterprises;
- e) ageing of societies, especially in highly industrialised countries; it is estimated that by 2050 the population above the age of 60 will account for 21% of the world's population (in 2000 – 10%);
- f) the dynamic development of e-commerce; the network economy.

The increasingly global nature of manufacturing, purchasing and distribution is a key megatrend which shapes planning and implementation of logistics tasks within new (modern) supply chains. The modern logistics must generate capabilities which will effectively implement the tasks needed in the current and prospective circumstances. This is even more complicated due to the fact that these changes must meet the challenges of the future, which are very difficult to clearly determine. This also applies to the issues relating to the search for more sustainable solutions, which are now one of the priorities. The search for logistics solutions that would be ecology-friendly is also the impulse to create and search for modern and innovative technology. As a result, the process of modifying the model of functioning of logistics and its tasks is continuous, and it causes permanent changes within existing logistics companies, especially in the face of the national, regional and global competition.

The indicated megatrends certainly do not cover all areas of changes affecting logistics in the second and following decades of the 21st century. This thesis is supported by Figure 2, which shows the possible areas, such as the duration of their deployment in international scope (global).

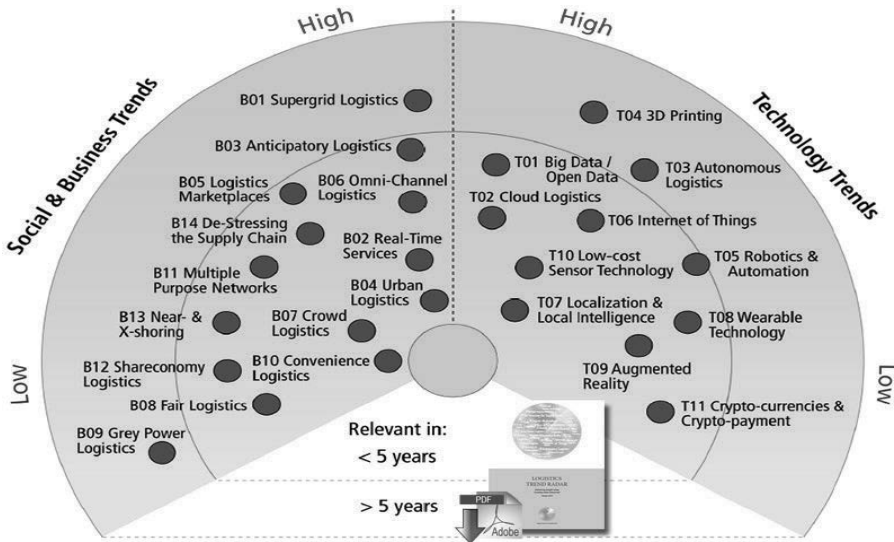


Figure 2. Logistics Trend Radar, Delivering insight today. Creating value tomorrow!, Version 2014

Source: DHL_Logistics-TrendRadar_2014.pdf.

Logistics is changing and will change in the future. Among the many conditions and concepts that currently have the greatest influence on the development of the actions and strategies of logistics the following should definitely be mentioned:

- the development of information and communication technology, the emergence and development of the concept of Cloud-computing and BigData (Kopishynska et al., 2016),
- growing importance of innovation – building the culture of innovation,
- virtualization of processes and activities, sensory perceiving,
- the concept of “Industrial Revolution 4.0” and automation of logistics processes,
- the Internet of Things and the Internet of Everything together with the concept of Omni-Chanel,
- development of the concept of “green logistics” and sustainable development,
- development of large cities and other demographic phenomena – development of urban logistics,
- development of intelligent transport systems (ITS), in particularly the implementation of C-ITS,
- development of logistics infrastructure – building logistics capacity,
- development of logistics services, particularly in the area of TLS,
- development of the concept of 3D printing.

The solutions based on the idea of “the Internet of Things” (IoT) are now one of the most dynamically developing concepts. Their use in many areas of economic life brings with it a big potential for development. It is worth taking a look at this issue by examining, inter alia, the value chain produced by the market and by analysing its current structure. Thanks to the analysis of this issue companies will be able to change more precisely in the future in order to obtain maximum “value added”. Regardless of the analysed possibilities and directions of the development of this idea, it must be assumed that in the coming years this market will remain very competitive and will be characterised by dynamic changes.

There are definitely more circumstances and problems logistics is facing. The indicated aspects are only to show the importance of the problem and the need for its constant monitoring. The necessity for such actions arises from the need for proper preparation for the expected changes or long-term trends. In this case, it seems that the following thesis is right: the sooner we start to predict these effects and detect their symptoms, the better we can prepare to face them, and the potential risks can be minimised, or with a good market situation, transformed into success. This approach seems to be extremely important for the Polish logistics, which must effectively act in a global and increasingly competitive world.

Areas and directions of change in logistics concepts

The cited circumstances as well as previously described megatrends allow to indicate the following factors determining the development and changes in logistics in the second and following decades of the 21st century:

- even greater targeting of logistics at customer expectations, creating new values and usability for the customer,
- concentration on core competencies, increasingly outsourcing of functions and logistics activities on the outside (the development of outsourcing),
- shortening product life cycle in conjunction with the pressure to shorten the product development cycle and the time to reach to final recipient,
- new concepts and strategies for the functioning of SCM which are subject to increasing trends relating to the limitation of time and cost (Skowron-Grabowska, 2005),
- building strategic alliances,
- moving competition to the whole supply chain,
- initializing and using in practice a stream of innovation,
- introducing innovative IT systems to allow for the full integration of activities within the supply chain, increasing flexibility and reducing costs of operations (Brzozowska, 2014),
- increase in transparency in the operations of the entire supply chain,
- growing importance of combined transport and properly organized (innovative) transshipments (Kadłubek, 2016),
- increase in the volume of shipments in conjunction with the concepts of e-commerce,
- increase of importance of aspects related to the concept of sustainable development,
- the necessity to support a multi-million cities, resorts, whose number and size will grow, especially in the context of the logistics use of their “third” underground area,
- globalisation and liberalisation of world trade.

There is also no doubt that logistics and the processes it contains, in particular modern and future supply chains are more and more:

- multidimensional,
- extremely complex,
- accepting different business models,
- combining previously contrary operations,
- adjusting to the changing environment,
- based on people.

A continuous development of logistic concepts can be seen. The range of tasks and responsibilities of logistics is constantly increasing. The scale as well as the complexity and dynamism of the processes grow, together with the scope and the use and implementation of increasingly sophisticated tools resulting from technological and technical development in the field of operational, tactical and strategic activities at local, regional and global levels. The changes of the following conditions: economic, financial, organizational, legal, international and technical-technological, which took place more or less dynamically, led to the gradual transformation of the traditional model of the functioning of the economy into a very dynamic network of connections and relationships. This results in the fact that modern logistics and the supply chain as its part must be characterized by many features, but the essential include (Kovacs, Kot, 2016):

- capacity for rapid reaction, ability to meet rapidly changing demand,
- flexibility and ability to adapt to the optimum: cost-service level,
- ability to maximize the use of company resources,
- ability to use all of the available information.

Today, in the era of integration and internationalisation as well as very fast and dynamic changes a lot of attention is focused on the search for new forms, ways and concepts of functioning of logistics that would meet current and future requirements, especially in the area of meeting customer's expectations to create a competitive advantage.

It is also worth nothing that not everything requires a broad analysis and building multi-dimensional theories. Some things are already clear and some effects are well predictable, which should be considered and included in the concepts of the development of logistics companies.

The expected changes primarily associated with the speed of response to the needs generated by clients will require bringing logistics structures closer to the customer. They will also require to transfer parts of the production process to a distribution warehouse, closer to the customer, for example, the final assembly, customization of the product, or 3D printing of selected items.

Today, a growing integration with the environment both in terms of IT and physical contact can be seen. The information technology integration mostly involves joining logistics system with e-commerce systems, providing the ability to control the availability and purchasing of goods and devices that communicate directly with each other via the Internet (this includes such concepts as: the Internet of Things or M2M – Mobile To Mobile). Physical integration means primarily improving logistics processes, e.g. automatic loading and unloading, fast path of replenishment in stock, completion of individual client orders, fast paths for completion processes.

Currently, the ecological context is most commonly analysed, first of all, in the context of building a positive image of the company. However, the expected increase in the importance of the ecological concepts and solutions clearly indicates the need for the implementation of energy-efficient solutions and a broad use of renewable energy sources. A certain facilitation for the building of a comprehensive concept of ecological changes, in the longer term, can be positively emerging economic aspect. It is anticipated, on the one hand, that there will be an increase in energy prices, and, on the other hand, a drop in the price of energy-efficient technology.

Taking into account, for example, demographic trends in the future, logistics will have to meet the new requirements of ergonomics. The expected increasing participation of elderly persons and women working in logistics will generate additional requirements for the ergonomics of work stations and the support of employee with extra equipment to facilitate the work.

On the basis of studies carried out, the following factors and circumstances may be identified which will have the biggest influence on the development of supply chains and logistics, research results implication:

- movement of centres of economic activity,
- progressive globalization and the tendencies for the regionalisation of many logistics and industrial activities,
- increase in the complexity of business in terms of the implementation of the concept of outsourcing, offshoring and on-shoring, and other concepts,
- moving away from traditional distribution to e-commerce, Internet sales,
- further development and formation of large urban centres,
- rise of the concept of sustainable development and the development of consumerism,
- changes in the labour market due to demographic changes as well as changes in the mentality of generations.

Some other factors should also be indicated, such as: the formation of mega cities and further urbanization, ageing of societies, migration, growth of services, changes in the system of the world economy. The experts specializing in modern technologies are confident that we stand at the threshold of the fourth industrial revolution. At this point, it appears advisable to pose a question: what will be its consequences for the economy and for logistics?

A very significant factor affecting the development of logistics and its functioning are disasters and natural hazards, whose number in recent years has grown steadily, and the risks arising from intentionally destructive man's activities such as terrorism or organised crime. A significant threat in this respect is also a "domino effect" arising from the growing globalization of modern logistics. This particularly refers to those factors where the delay, for example, in the delivery of the goods to the port as a result of disruptions in the infrastructure or late ferry departure due to bad weather conditions in one region causes delays in many other places, in which goods are expected.

The multiplicity and diversity of logistic processes as well as changes in the surroundings of logistics enterprises make logistics one of the industries most exposed to various adverse factors causing an increase in the level of risk.

In the next few years continuous improvement should be expected, supported by innovative tools and procedures technologies, which are, in fact, means of prevention. It should be noted, however, that the expansion of security procedures may cause limitations in flexibility and creativity of logistics.

Modern logistics is perceived globally, and similarly to science it is constantly expanding its boundaries to be able to effectively adapt to global trends and strategies.

Conclusion

There is no doubt that it is necessary to permanently conduct analyses and research in both the theory and practice of logistics in order to identify the requirements for the current and future logistics system. A multifaceted evaluation of different logistics systems (case studies), the identification of problems in the existing systems, which constitute the barriers, should also indicate the needs and directions of changes and transformations, including changes in the system of logistics education.

Another argument indicating the need for forecasting is growing time pressure, which also applies to actions and decisions in logistics. Therefore, the implementation of new ways and concepts of the implementation of the

logistics operations shall not be delayed. In many cases, decisions about prospective changes are to be taken today, being aware of the fact that each change takes time. The lack of such action results in losing in an increasingly competitive market. The basis for these actions is and will be the knowledge and findings from research and considerations in the form of rational economic and social visions that will create the base to take accurate and meaningful decision changing the image and way of logistics operations.

Properly prepared logistics personnel will change logistics and build new concepts and strategies. In the context of the ongoing considerations not only will their competence, knowledge and the ability to see new challenges and needs be important, but also the courage in taking important decisions. The development of modern logistics concepts, the ability to take calculated risks and not conventional activities will also be of huge importance.

In conclusion, it should be believed that logistics is facing interesting future, but what it will be like largely depends on us. This will depend on our ability to see new conditions, challenges and opportunities and to build, basing on reasonable grounds, new, adequate to current (future) needs concept and rules of operation of logistics.

At the end of the discussion, it seems reasonable to make the following thesis: in the education of future logistics managers more attention should be paid to developing thinking skills in terms of logistics categories, seeing new opportunities and constraints, and perfectly using new technology in the interest of the conducted activities.

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THE IMPORTANCE OF SOCIAL MEDIA IN FINANCIAL SERVICES' SELLING

KAZIMIERZ CYRAN,¹ SŁAWOMIR DYBKA²

University of Rzeszow, Faculty of Economics, Department of Marketing and Entrepreneurship, POLAND

¹ e-mail: kcyran@ur.edu.pl

² e-mail: slawomirdybka@gmail.com

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ABSTRACT

The growing popularity of social media engage business for using this channel of marketing communication. Financial institutions are trying to rebuild client trust so social media could be theoretically an important tool. But it turns out that it is not, at least not always. Therefore social media may be a complementary communication channel and cannot be ignored completely. Own research confirms that decisions about buying financial services are determined by other factors such as fees and commissions, range of services or number of ATMs.

Introduction

The highly competitive market players try to use efficient and effective tools to communicate with customers, trying to create stable relationships based on various factors. Growing popularity of the social media causes businesses and institutions to actively use them in marketing communications. Therefore, the article attempts to answer the research question: have the social media and the information published there a similar influence on

purchasing decisions in financial services as in the other types of services? It seems to be doubtful and motivates discussion about - how to use the various tools of marketing communication? It still remains a question about the importance and scope of factors affecting customer satisfaction and loyalty, as well as the position of marketing and promotional activities.

Literature review

The latest global crisis has seriously damaged trust among customers, their perceptions and behavior related to the banks. Competitive pricing and cutting edge technology based financial solutions are not enough to restore customers' confidence, prevent attrition and cultivate their loyalty. Human-based distribution channel remain the best manner to offer tailored banking and reward customer affinity. In order to be more efficient banks shall study the manners in which emotions influence customers' decisions and behaviors via dedicated customer relationship management electronic solutions (CRMs). Behavioral knowledge may help banks to reposition their products, features and prices in order to be more attractive and effective for the most customer, providing a competitive edge (Dedu, Nitescu, 2014).

Rebuilding of the image and creating good relationships with customers is a marketing challenge. Nowadays all firms try to in cash the corporate image to increase their revenues particularly profits depended on customer satisfaction defined "an overall evaluation based on the total purchase and consumption experience focused on the perceived product or service performance compared with pre-purchase expectations over time". So it should be clearly understood that financial services differ significantly from material goods and other service categories. Most often, when consumers buy financial services, they must give up a certain amount of money for a benefit which is to be experienced in a future time. It is therefore of paramount importance that customers perceive the services of a particular bank of high quality. Moreover, a high service quality offer on behalf of banks may lead to favorable perceptions among consumers with regard to the effort made by financial institutions with the purpose to develop their relationships with customers. This, may lead to customers' willingness to engage in the relationship, thus responding to banks' efforts by adopting a positive behavior (Radomir, Plaias, Wilson, 2015).

In most types of business, everyone is underlined by the growing importance of the internet and the media community. However in the case of financial services, this is more complicated. Nevertheless, starting with the basic mechanisms the same as to all sectors the emergence of social media in recent years has allowed marketers to reach potential customers in new, unique ways and forms. Users create profiles on a social media site or in an application designed and maintained by the social media organization. User profiles can connect with other users' profiles and create networks. Social media depend on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content. Social media might add value to consumers beyond existing e-commerce activities. Social media can complement other channels of communication with an organization and can help manage service quality for consumers enabling implementation marketing objectives, such as supporting brand awareness, decreasing marketing costs, increasing sales, and enhancing brand image by interaction with users on social media. Furthermore, companies might overview and analyze public conversations in social media to identify consumer sentiment towards their company . In addition, more over companies define rules for their employees about social media usage in cases regarding their work to avoid potential damage to the company's image (Vejačka, 2017).

The involvement of financial institutions in social media, however, is differentiated as well as the use of the internet or mobile banking due to the strategy adopted by the bank, sometimes the possibility.

Table 1. Comparison of different levels of internet banking

Different levels of internet banking	Basic	Intermediate	Advanced
Informational	Electronic manual, communication tools such as emailing exchange daily report	Search engine, downloading economic reports and in format information	Registering on the website, joining discussion groups, access to other websites
Communicational	Electronic post, suggestion and critique forms, feedback forms	Using advise tools such as calculators applied in financial planning	Video conferencing, service development
Transactional	Opening bank accounts, applying for cheque book, applying for bank cards	Checking and printing account balance. paying water. electricity and telephone bills, transferring money	Electronic money, electronic signature, electronic cheques

Source: based on Sadeghi, Rasoulia, Mirzaei, Sharifipour (2017).

As described above the financial services sector is characterized by different level of using internet-based technology. Explanation may be related to the specificity of financial services or customer expectations.

Banks, whatever of their conditions, in order to improve their market position, must focus on the determinants of customer satisfaction. Engaging only into public relations activities will not deliver the expected long-term benefits.

Considering specificity of financial services, it can be shown some of the essential satisfaction factors:

1. Competitive interest rates and convenient banking – realized competitive bank charges, interest rates on loan, good value in banking products services, convenient banking hours, convenient branch location.
2. Easy access, cleanliness and responsiveness – bank provides easy-to-read understandable statement, bank employees are neat in their appearance, and employees in the bank are never too busy respond to customer request.
3. Competitive interest rates and reasonable fee – bank pays competitive interest rates on deposits, and charges reasonable service fees (Sharma, 2016).

Banks have evolved from the traditional walk-in facility towards multimedia. Being early adopters of technology, banks are continually searching for new and innovative electronic banking products and services. The recent growth in Internet and cell phone diffusion has transformed the landscape of the financial services industry, allowing for banking to be conducted with an anytime, anywhere philosophy. Banks offer many different channels to access their banking and other services. These 'channels' refer to the medium employed by the consumer to interact with the bank (Patel, Brown, 2016).

In parallel with the development of electronic banking and the web portals of financial institutions, social media extended, quickly ceased to be merely a form of private interpersonal communication. In this article we want to focus on the role of social media as the most popular and development among customers, employee and managers, but in consideration of the specific nature of the financial services segment. Social media has become a critical piece in the digital ecosystem and is measured via key metrics focusing on brand awareness, customer engagement and customer service excellence. Banks also leverages social listening and high-level platform data (such as Facebook likes and Twitter followers) to inform dashboards for executives. Bank's social media strategy

is focused on executing their brand campaign, as well as philanthropic and sponsorship-based programs, focusing on key areas: customer service, contextual product information, always-on 'consideration' content, and community and promotional offers (Marshall, 2016).

Social media is used as a news vehicle, a political sounding board, a consumer forum and a communication tool for businesses. Bankers clearly see the value of social media; in a survey published recently by ABA on the state of social media in banking, 76% said social media was important to their institution. Despite that, many banks are still only in the early stages of their social media journeys: only 24% of bankers have been using social media for more than five years. The rest are either just starting out (63%), planning to do so in the next 1 to 2 years (5%), or have no plans to use social media at all (9%) (Meinert, 2017).

Also United Bankers' Bank recently reviewed the social media presence of 250 customer banks. The study found no direct correlation between the asset size and the number of "likes" a particular bank received on their Facebook page. About 80% of banks studied by UBB hadn't created a social media presence. UBB found they still had a social media presence even though they didn't create social media pages. It is best to be prepared for control the conversation by creating own social media presence and monitor social media to be aware of what's being said about bank (Holt, 2015). So it can be argued that the activity in social media is not only desirable but also forced.

Method

Theoretical part of the article is based on a review of the literature and refers to the issue of financial institutions image, factors which generate satisfaction, and the relations between these factors and the messages that are generated in social media by banks. The empirical part was an attempt to confirm the thesis and to identify the reasons for the limited position of social media in decisions regarding financial services. The empirical part is based on own research, conducted in 2017, on a sample of 304 respondents living in the Podkarpackie voivodship. The structure of the research sample reflects the structure of the population (quota sampling). The research was conducted through face-to-face interviews using an interview questionnaire includes 83 questions with different measuring scales. Presented research results include studies carried out in the department of marketing and entrepreneurship of the University of Rzeszów in the area of the marketing activities and development of the enterprises.

Results

It should be noticed that the sample size and geographical location of respondents probably cause limitations of the studies and influence the results of the survey. Other researchers may get different results, but the ones presented in this article may be a voice in discussion and an indication of new directions or research topics. Purchase decisions are taken by the customer based on various factors. It depends on the customer's characteristics and type of products or services. The research concerned on the determinants of service purchasing. According to the purpose of the article, attention has been focused primarily on the importance of social media in different types of services (Figure 1).

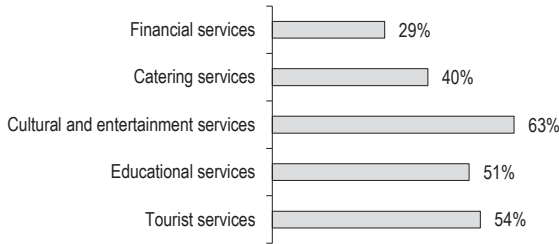


Figure 1. Opinions concerning selected services expressed in social media as the most important factor influencing purchase decisions

Source: own calculations.

The research proves that information published in the social media are important in purchasing decisions. The impact of this information on consumers' decisions varies, however, depending on the type of service. Mostly, the information published in social media determines the decision to purchase cultural and entertainment services, followed by tourism and educational services. For each of these groups, more than 50% of the respondents declare that these media are the most influencing data source. On the other hand, social media makes decisions about the choice of financial services to the smallest extent (important for 30% of the respondents). Looking for an attempt to explain the described phenomena, it is necessary to refer to the specific nature of the services, especially financial services may be described as sensitive, because not everyone wants to disclose information about their financial situation, including borrowed or invested funds. Meanwhile, participation in cultural and entertainment discussions using social media is a good opportunity to look for attractive events or contacts.

The varied importance of information published in social media influences the frequency of searching the informations about particular services (Figure 2).

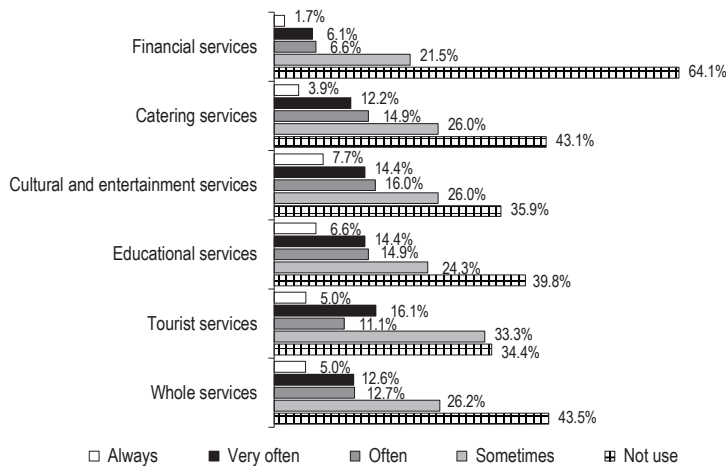


Figure 2. Frequency of using information in social media before purchasing selected services

Source: own calculations.

According to the research more than 50% of requested customers search information about services using social media. However, the frequency of searching for this information is different for each type of service. In the group of services for which respondents declare that they are always looking information about them on social media, may be listed (in order) cultural, entertainment, educational and tourist services. Before buying of these services more than 60% of the respondents declare using discussed media for information. The smallest importance of social media may be observed in financial services, where nearly 65% of respondents declare that they never use information contained in social media before purchasing. Less than 2% of respondents admit that these source of information about the offer of services is always used before buying. The observed differences in the importance of using social media before undertaking decisions of buying services, including financial services, inspire to recognize the conditions of this importance. Therefore, during research of the importance of social media for respondents' preferences, their age, sex and education were analyzed (Figure 3).

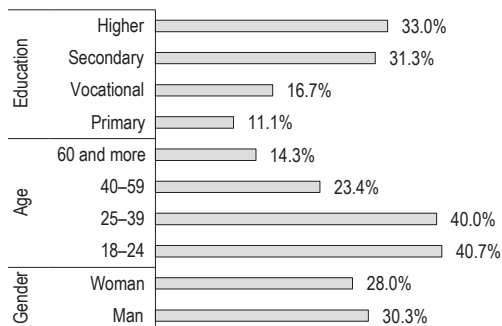


Figure 3. The structure of respondents considering information published on social media networks in their purchase decisions of financial services

Source: own calculations.

Collected data proves a large difference in the inclusion of information from social media in purchase decisions. While in the case of gender, the impact of social media is quite similar, with a slight advantage for men, in the other criteria that characterize respondents, the divergence is larger. The level of education of the respondents was more related to the diversification of the impact of social media. People with higher education more often admit that information from social media creates their market choices. In the case of people with higher education, almost one third of the respondents consider social media in their decisions, whereas in the group of people with basic education, 1/10 respondents report similar influences. Social media has the greatest impact on young people, about 40% of them declare it. Older respondents were not interested in social media because of their habits and troubles with using information and communication technologies (ICT). The explanation of the described rules is different media preferences by different customer groups, where young, learning or higher educated are more active users of social media networks.

The analysis indicates also that information published by the social media community is only one of several factors that the clients takes into consideration (Figure 4).

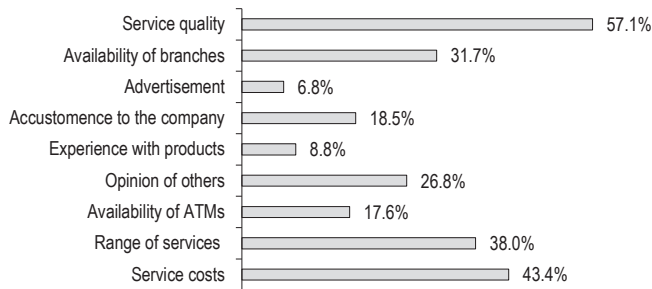


Figure 4. Determinants of choosing a financial services provider

Source: own calculations.

The decision of purchasing the financial services depends of many factors. However their importance are different. The most important factor in this process is the quality of customer service, including personalized and non-anonymous contact with the customer, method of the offer presentation, time spent on the service, the simplicity of the presented offer. Another important factor is the costs of services, including fees and commissions which are equivalent of the price for the service. Slightly less importance was observed in the extent of the offer, which fulfilled the diverse needs of customers. Physical accessibility of the facilities, the number of service branches, accessibility and parking, or the availability of ATMs are also important for customers. On the fifth position in the rank, respondents indicated opinions of others customers, as a factor influencing their preferences. These opinions may relate to personal contacts as well as expressed by social media. The smallest importance was observed in the case of advertising and experience with the offered products. Referring to the basic thesis of the article, it was confirmed that the position of social media in the decision of purchasing financial services against other factors is generally meager.

Limitations

The research results included in this article are only part of the study on the importance of social media. Considering that the overall objective of the study was very wide and the article used only a small piece of the collected data, there are some limitations of the conducted research thesis. The first limitation is the consequence of extended interview questionnaire caused the respondent's fatigue, and could have resulted in hasty answers. The second limitation - research was conducted in only one province, (Podkarpackie voivodship), which is only a small part of society, so the results can not be generalized for the entire population. Another limitation is the number of respondents. Although the sample of 304 respondents may be sufficient for regional studies, transferring of research results to a larger population will decrease the reliability of the study.

Conclusions

Social media may be an important source of data for some customers, preceding and facilitating the selection and purchase of products or services. The informations provided on social media are more important in the case of services, whose intangibility makes it impossible to verify the quality before purchase. Therefore, the opinions of other people who got the experience and knowledge about the availability of services and their quality may be the

way to verify the market offer of companies. In the result of specificity and complexity of the financial services the information published on social media may not be comprehensive enough to cease promoting services outside the social networks. Development trend of social media suggests an increasing importance of published information for consumer preferences and purchasing decisions, including in the financial services sector. However, nowadays financial services communications should not be concentrate only through social media, as a large group of users outside of this community would not be able to be acquainted with the market offer.

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SELECTED ISSUES OF TRUST BETWEEN TRANSACTION PARTNERS IN E-COMMERCE

MACIEJ CZAPLEWSKI

University of Szczecin, Faculty of Management and Economics of Services, POLAND
e-mail: maciej.czaplewski@wzieu.pl

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ABSTRACT Despite of a growing understanding of the benefits associated with e-commerce, characteristic for this form of trading lack of direct contact between the sellers and the buyers, enforces a strong emphasis on building customer trust.

The aim of this article is to present the characteristics and properties of electronic commerce and its impact on customer trust in this form of trading as well as indication of activities to build and strengthen customer confidence in e-commerce.

The article tries to verify the following hypothesis: the characteristics of e-commerce, in particular the spatial distance between the seller and the buyer, points to the need to give an important role to build the trust of customers to this form of trading,

The article layout has been subordinated to achieve the pursued objectives and to verify the hypotheses. The article presents the following issues: benefits and possible risks of online trade, the impact of e-commerce features on customer trust and confidence as well as selected, essential activities that serve this purpose.

Introduction

E-commerce as an innovative form of trade basing on the wide use of electronic networks is distinguished by features like:

- high transparency of e-commerce related with the possibilities of acquiring in the Internet a wealth of information on e-retailers, including those posted online by these entities,

- spatial remoteness of e-sellers and e-buyers and the lack of direct contact of these entities.

The latter feature of e-commerce makes it difficult to build customer trust, who is credited with an important role in any activity that requires interpersonal contact (Berty, 1995, pp. 236–245).

Basic e-commerce benefits and risks for transaction partners

E-commerce basing on the Internet primarily represent for e-buyers a source of rich information on the products offered on the network, their properties and prices as well as on e-retailers offering these products.

For e-retailers e-commerce means a constant reach with its offer to potential customers around the world. For e-buyers it creates the opportunity to reach interesting commercial information at any time and regardless of where they reside.

Using the Internet for buyers and sellers allows improvements in the area of products and processes. This means that e-commerce creates new market conditions having a direct impact on the market situation of e-retailers and the market situation of e-buyers. It can be concluded that the use of the Internet creates the conditions for e-retailers to:

- increase revenue, eg. due to twenty-four hours operation and due to the broad access to customers, allowing to expand the scale of operations,
- rationalize costs, eg. due to lowering the cost of maintaining the traditional retail space costs, costs of inventory and delivery costs, especially of digital products.

The literature also points to the potential risks associated with e-commerce, among which primarily exposed are the following ones (Heinemann, 2010, p. 212):

a) on the side of e-buyers:

- reluctance of a part of customers to accept the lack of physical contact with the seller,
- fear from the side of some clients against possible difficulties in case of the need to initiate a complaint procedure;

b) on the e-retailers side:

- the need to acquire competencies necessary for e-commerce,
- functioning in a highly competitive environment, where often competitors from foreign industries show up,
- the need to accept a relatively low profit margin.

Observed in some customers fear from the use of e-commerce point to the importance of building consumer confidence in this form of trading. In the process of building that trust, one can use a variety of instruments, but the primary role should be attributed to the activities of e-retailers. Given the numerous benefits that can be achieved through e-commerce for all its users, including e-retailers, they should be vitally interested in taking actions that build and strengthen customer trust in e-commerce and attracting clients to this form of trading.

Developing trust in e-commerce

Every business that requires the cooperation and contacts of various participants can proceed smoothly in conditions of existence of at least a minimal trust between them (Bleicher, 1994, p. 23; Kuczera, 2016, pp. 305–306). This becomes a significant clarity in e-commerce transactions, in which:

- the partners are spatially separated from each other,
- partners are usually unknown, or even anonymous,
- charges for a transaction often are carried out before obtaining the ordered goods (Norris, West, 2001, p. 43; Kossecki, 2004, p. 37).

Limited partners trust within e-commerce can also be attributed to the relative newness of this form of trade and the Internet itself.

These features of e-commerce may cause to customers increased conviction of the possibility of opportunistic behavior on the part of e-retailers (Grudzewski et al., 2009, p. 129). Considering the state of matters in the literature appear definitions of trust in e-commerce. D. Kuraś and E. Paszta (2001, p. 561) confidence in e-commerce define as “customer openness on online retailer actions based on the expectation that the seller will operate in the usual way, regardless of whether the customer will benefit from the possibility of checking and controlling the online seller”.

Given the indicated characteristics of e-commerce, an important element conditioning its development is the implementation of measures aimed at building and strengthening trust between users of e-commerce. Following the argument made by F. Fukuyama that a key factor in the development of the so-called new economy will be a degree of mutual trust within a widely understood society (Fukuyama, 1997, pp. 30–49), it must be assumed that in building trust between users of e-commerce essential are activities implemented in macro- and microeconomic scale.

Among the activities carried out in the macroeconomic scale, fundamental role have the developed by the competent authorities formal and legal solutions, forming a framework for e-commerce functioning. In Poland, the main regulations in this area are contained in the Act of 30 May 2014 about consumer rights. This Act introduced into national law, crucial for e-commerce, Directive of the European Parliament and Council 2011/83/EU, according to which amongst other:

- the customers have the right to withdraw from the contract within 14 days from the date of sale,
- the sellers are obliged to inform the consumer about his rights at the latest at the time of submission of the proposal to conclude the contract,
- in the case of transaction cancellation the company must return all made on its behalf payment, including the costs of delivery.

These solutions indicate that the applicable national and international law provides a strong support for e-buyers and should encourage buyers to use e-commerce. Among the macroeconomic regulation an important role in building consumer confidence in e-commerce also play regulations on the Internet and telecommunications (because the use of Internet requires access to telecommunications networks).

Significant regulatory actions concerning strictly the Internet in relation to the possible applicability of this medium in order to sell services was the introduction regulations on electronic signatures, electronic money and processing of personal data and privacy protection (Janowicz, 2000, p. 73).

At the core of such approach in the European Union policy is the issue of ensuring consumer protection. However, actions implemented at the microeconomic level a fundamental role is being played by e-retailers, who must seek to gain the trust of customers and convince customers to purchase online.

Customer confidence arouse especially those seller, whose websites include:

- transparent information about the company, including recommendations,
- precise information about the products,

- information on applicable solutions for the privacy protection,
- solutions that provide easy navigation and certification of the website authenticity.

Provided by e-vendor wide information about himself can be an important argument for the customer when selecting a specific vendor. Information openness of an e-seller becomes almost a requirement in the conditions of an easy and inexpensive possibility of use of solutions such as comparison websites, blogs, forums and chat rooms.

In this situation, it becomes difficult to hide any blunders or any kind of fraudulent behavior of an e-seller, consisting eg. on the incomplete product descriptions, incorrect descriptions or not honouring the terms of the agreements (Peters, 2010, p. 172). A positive effect may be reached, however, by giving a presentation on their website extended information on the utility of individual goods and guarantee services provided. Seller presenting such information, which are generally not widely available, can thus obtain greater customer confidence and build an advantage over market rivals.

Undertaken measures implemented at the macroeconomic level, which are basing on the creation of increasingly sophisticated formal and legal framework regulating e-commerce, in conjunction with the development of online services to help customers acquire in-depth knowledge of e-retailers, forces them to present increasingly broader and more reliable information about them and gives a positive market effect in the form of reducing the asymmetry of information between e-commerce transaction partners especially in comparison to traditional sale, where seller generally have richer information (Fox, 2010, p. 49).

However, this points to the need for continuous improvement of sales solutions used by e-retailers, the implementation of new sales concepts and informing e-customers about their advantages conducive to further strengthening of consumer confidence in e-commerce and e-retailers.

Current techniques of online consumers trust increase

Properties of e-commerce associated with its reliance on the Internet and accessible information resources strongly influences the market situation of e-retailers and e-shoppers. The market position of customers using the potential of the Internet is strengthened, which enhances e-retailers the sense of an obligation to provide:

- products and services with the required quality parameters,
- favorable purchase terms.

E-sellers seeking to offer favorable conditions for the purchase do not, however, show a strong interest in the strategy of a cost leadership. This is mainly due to the fact that its use under high transparency of the market would inevitably lead to an undesirable price war. The reason may be also the fact, that in the conditions - characteristic for e-commerce - of a high ease of switching to another seller, solely a low price is often not a sufficient argument for customer retention.

In such market conditions, rises the significance of the use of offer differentiation strategies and its binding with the strategy of low prices. The legitimacy of its use should be associated primarily with high potential of offer diversification in e-commerce. Such differentiation can be achieved primarily through:

- proper selection of categories for products sold,
- the use of specialized concepts serving better customer needs and thus building a stronger bond between sellers and customers as well as in-deeper customer confidence in retailers.

According J.M. de Figueiredo (2000, p. 42) most likely to succeed in e-commerce is selling less standardized products, which are difficult to evaluate in terms of quality.

The activities of e-retailers on the improvement of product offerings can be supported with the use of the sales concept conducive to strengthening the bounds of e-retailers with customers and deepening customer confidence in e-retailers. As particularly promising in this respect we can recognize the concepts of Mass Customization and the Long Tail (Anderson, 2004, pp. 170–174).

The concept of Mass Customization is a form of deepening the differentiation of the product offer, favoring buyers to obtain the products at most suiting their individual preferences. Sellers using this concept offer buyers alongside standard products, the ability to shape the product in a manner as nearly as possible to suit their needs.

The condition for smooth application of the concept of Mass Customization is to collect information on the individual preferences of each customer. E-sellers can achieve this goal relatively easily by installing on their websites so called product configurators, through which the customers indicate themselves their preferences.

The second previously mentioned concept – Long Tail – was established following the observation of commercial practices, which showed that a relatively large part of the product offer meets with little demand and unsold products are rarely sought after by consumers. Such products, like some books, some music, have become niche products, which traditional shops do not want to keep on the shelves (Kilian, Langner, 2010, p. 14).

Summing up, we can say, that e-commerce creates favorable conditions for its use also in marketing activities and in particular to:

- the use of so-called one-to-one marketing, which is based on establishing individual contacts with buyers and allows customization of communication as well as identification of single customers (Kowalski, 2011, p. 496),
- visibility of brands, which being a determinant of the value of the product, affect the sales volume and consumers market (Rosa, 2011, p. 371).

The smooth carrying by e-retailers of such actions serve additional differentiating of offer and strengthen their awareness on the market. This promotes the positive distinguishing from the competition, building stronger relationships with customers and deepening customer trust to those e-retailers.

Conclusions

E-commerce offers significant benefits to both - sellers and buyers. For sellers those are primarily associated with:

- creation of new business areas and the ability to take actions within this fields,
- offering solutions to improve internal production processes and customer contacts, while allowing for a better use of available resources.

On the buyers side the benefits of using e-commerce relate, in particular on:

- the possibility of transactions in the most convenient for the customer time and place,
- high transparency of e-commerce market, improving the buyers access to many relevant information about e-sellers and its offer, and thus strengthening the market position of buyers,
- saving the time required for the transaction.

In spite of a growing understanding of the benefits associated with e-commerce, distinctive for its lack of direct contact between the sellers and the buyers forces to put a strong emphasis on building customer confidence in this form of trading. A fundamental role in building this trust play:

- formal regulations concerning e-commerce and the Internet, and institutions supervising its compliance,

- operation of e-retailers strengthening transparency of e-commerce, including their own websites,
- solutions offered by other entities of the so-called new economy sector, including those facilitating e-shoppers a comparison of offers of various e-retailers and offering customers the opportunity to comment on e-retailers behavior and their assessment.

The perceived effect of these actions is the growing acceptance of the use by citizens of modern information and communication technologies, including the Internet and the increasing acceptance of purchasing goods and services through electronic channels. It is expressed by a rapid increase in the number of Internet users, including Internet users using e-commerce. Taking into account a strong relationship between commitment and trust indicated by Tayyab Maqsood and Derek Walker (2007, p. 127) an important consequence of these changes is the increasing and more complete knowledge of customers on e-commerce, expanding their positive experience with the use of e-commerce and education, which is deepening customer confidence in this form of trading.

Positive changes taking place in the area of e-commerce market manifested by the growing demand for services in this market lead to changes on the supply side of this market, converting especially in an increase regarding the number of e-retailers and in increasing competition between them. This favorable for e-customer situation requires from e-retailers seeking and implementing new sales concepts, distinguishing them from other competitors and attracting more customers. The article indicates that the chances of such success primarily offers the use of the concept of Mass Customization and the Long Tail.

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EFFECT OF ADOPTED DIAGNOSTIC VARIABLE WEIGHING SYSTEM ON THE RESULTS OF INVESTIGATION OF SOCIOECONOMIC DEVELOPMENT OF VOIVODSHIPS IN POLAND

RAFAŁ CZYŻYCKI

University of Szczecin, POLAND
e-mail: rafal.czyzycki@wzieu.pl

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ABSTRACT The regional development is certain, complex and multidimensional statistics, ambiguously defined, and although it is frequently used, both in theory and practice, its measurement method remains inconclusive. The proper assessment of the region development level is mostly performed by the methods of linear ordering, whose basic tool is a synthetic measure, being a function aggregating partial information, contained in individual attributes (measures). The results of the research are determined at the same time not only the final list of diagnostic variables, but also the choice of the distance measure and aggregation formulas. As there are many formulas for variable standardisation, methods for weight determination, methods for averaging of standardised values, methods for establishment of reference object coordinates and formulas for distance calculation, lots of different aggregate measures. However, the literature frequently encourages to, in the absence of unambiguous indications for varied meaning and role of individual features, tacitly assume that all diagnostic variables are of the same weight, in general, there are two methods of obtaining weights for individual diagnostic variables: the weights are established by the experts' method (*a priori* method) or with the use of the computation algorithms based on information included in the primary (raw) data (*a posteriori* method). This study will be conducted on the basis of statistical methods for obtaining weights for individual diagnostic variables (*a posteriori* weights).

Introduction

When investigating the level of socioeconomic development of specific regions, it needs to be borne in mind that it is some kind of multi-dimensional characteristics which cannot be measured directly, but which is described by a range of diagnostic variables which should be related to that term. The very term "regional development" can be defined in different ways. Regional development can be treated as a process of positive changes in the

quantitative growth and qualitative progress occurring in the country (region), i.e. a supralocal socio-territorial system characterised by specific features of space, structure of economy and social bond arising from the common national identity (Strahl, 1998, p. 29), but it can also be identified with constant growth of economic potential in regions and systematic and constant improvement in their competitiveness as well as improved quality of life of the inhabitants Chądzyński, Nowakowska, Przygodzki, 2007). Regional development occurs also when a region exports goods or services, develops its infrastructure, uses rich and diverse resources, when innovative entrepreneurs and competent and active institutions of public authorities supporting those processes operate there (Flejterski, 2007, p. 227).

Regions are ranked from “the best” to “the worst” on the basis of the value describing individual regions (synthetic variable, synthetic development measure), obtained from the function aggregating information included in the adopted diagnostic variables. The main stages of the procedure aiming to obtain a synthetic variable include (Kukuła, 2000, pp. 42–76; Walesiak, 1996, pp. 125–130):

- selection of diagnostic variables related in substance to the paramount criterion according to which the objects (voivodships) will be arranged,
- depriving variable base units of values and unification of orders of magnitude to lead them to comparability,
- weighing of standardised diagnostic features, i.e. assignment of weights to individual variables, which weights determine their meaning for the general criterion compared to other features,
- selection of the aggregating formula and determination of the value of the synthetic development measure on its basis.

So far, as regards methodical aspects of investigation of socioeconomic development of regions, the subject of interest was, inter alia, the effect of selection of diagnostic variables (Czyżycki, 2018a), effect of selection of the standardising formula (Czyżycki, 2012, pp. 15–23) or aggregating formula (Czyżycki, 2018b) on the obtained results of region ranking. This article aims to determine the effect and merit of the adopted diagnostic variable weighing system on the final results of such investigations.

In general, there are two methods of obtaining weights for individual diagnostic variables (Kao, 2010, p. 1779): direct and indirect. In the former method, the values of weights for individual variables are obtained by interviewing experts, on the basis of conducted surveys, etc. even before the stage of collecting data on shaping of individual variables in the studied objects. Therefore, they are sometimes referred to as *a priori* weights. In the latter method, the weights are obtained directly from analysis of data obtained beforehand (*a posteriori* weight); this is why they seem more compelling from the substantive point of view. As opposed to the weights determined by experts, which can be constant in further analyses of the same problem, *a posteriori* weights have to be determined anew in each and every analysis (Sokołowski, 1985, p. 48). However, the literature frequently encourages to, in the absence of unambiguous indications for varied meaning and role of individual features, tacitly assume that all diagnostic variables are of the same weight (Kukuła, 2000, p. 64).

This study will be conducted on the basis of statistical methods for obtaining weights for individual diagnostic variables (*a posteriori* weights).

Research methodology

Bearing in mind that the list of variables included in the investigation of socioeconomic development of regions is key, it should, therefore, be discussed among experts and regarded as the best list representing the analysed

issue. A wide review of the literature in this respect was performed by R. Klóska (2015, pp. 99–108) who, on the basis of in-depth studies, offered 18 indicators which can be employed to assess regional development in three dimensions:

- a) from a social perspective: number of infant deaths per 1,000 live births (X_1), at-risk-of-poverty rate ($X_2 - \%$), number of students of the tertiary education institutions per 10,000 inhabitants (X_3), registered unemployment rate ($X_4 - \%$), number of road fatalities per 100,000 inhabitants (X_5) and total water consumption for the needs of the national economy and population (hm^3) per 10,000 inhabitants (X_6);
- b) from an economic perspective: GDP (current prices) per capita (X_7), share of economy entities' financial outlays in the total outlays on research and development activities ($X_8 - \%$), number of newly registered national economy entities in the private sector per 10,000 inhabitants (X_9), number of employees per 1,000 inhabitants (X_{10}) and total investments (current prices) per capita in PLN (X_{11});
- c) from an environmental perspective: percentage of the population using the sewage treatment plants ($X_{12} - \%$), forest cover ($X_{13} - \%$), recycling of packaging waste ($X_{14} - \%$), share of devastated and degraded lands requiring reclamation in the total area ($X_{15} - \%$), share of waste (excluding municipal waste) recovered in the amount of waste generated during a year ($X_{16} - \%$), share of the electricity generation from renewable energy sources in the total electricity generation ($X_{17} - \%$) and electricity consumption per 1 million PLN GDP ($X_{18} - \text{GWh}$).

Employing statistical website stat.gov.pl, information for all voivodships in Poland was obtained as to the shaping of eighteen diagnostic variables proposed in the article. At the same time, it was assumed that the socioeconomic development would be analysed at the end of 2016 and in the case of thirteen variables, the shaping of their values in individual voivodships in that year was assumed for studying, but in the case of Gross Domestic Product per capita (X_7), share of expenditures for R&D activity financed from the enterprise sector in the expenditures for R&D activity in total (X_8) and the consumption of electric energy per PLN 1 million of GDP (X_{18}), the study included their value in 2015, in the case of packaging waste (X_{14}) – in 2014 and as regards the share of waste (except for municipal waste) subject to recycling in the amount of waste generated throughout the year (X_{16}), the level of 2013 was adopted. For the above five variables, the indicated years were the last for which, at the moment of conducting the investigation, the Central Statistical Office provided information concerning the shaping of the values of those variables in individual voivodships.

The values of weights for individual diagnostic variables (w_j) will be determined based on the following methods:

1. Method of uniform degree of magnitude of individual variables:

$$w_j^1 = \frac{1}{m} \quad (1)$$

where m means the number of diagnostic variables ($m = 18$).

2. Method based on standard deviation of standardised variables (Diakoulaki, Mavrotas, Papayannakis, 1995, p. 766):

$$w_j^2 = \frac{\sigma_j}{\sum_{k=1}^m \sigma_k} \quad (2)$$

Variables shaped in range [0, 1] are obtained:

- in the case of stimulants, according to formula:

$$z_{ij} = \frac{x_{ij} - \min_i x_{ij}}{\max_i x_{ij} - \min_i x_{ij}} \quad (3)$$

- in the case of destimulants:

$$z_{ij} = \frac{\max_i x_{ij} - x_{ij}}{\max_i x_{ij} - \min_i x_{ij}} \quad (4)$$

3. Methods based on primary variable variability indices (Śledzik, 2012, p. 258):

$$w_j^3 = \frac{V_j}{\sum_{k=1}^m V_k} \quad (5)$$

4. Method based on entropy of variables consisting in the following (Wang, Luo, 2010, p. 8):

Step 1: data normalization:

- in the case of stimulants, according to formula:

$$z_{ij} = \frac{x_{ij}}{\sqrt{\sum_{i=1}^m x_{ij}}} \quad (6)$$

- in the case of destimulants:

$$z_{ij} = \frac{(x_{ij})^{-1}}{\sqrt{\sum_{i=1}^m (x_{ij})^{-1}}} \quad (7)$$

Step 2: determination of the value of entropy (E_j) and degree of differentiation (d_j):

$$E_j = -\frac{1}{\ln(m)} \times \sum_{i=1}^m z_{ij} \ln z_{ij} \quad (8)$$

$$d_j = 1 - E_j \quad (9)$$

Step3: determination of weights:

$$w_j^4 = \frac{d_j}{\sum_{k=1}^m d_k} \quad (10)$$

CRITIC method (*Criteria Importance through Inter-criteria Correlation method*) (Diakoulaki, Mavrotas, Papayannakis, 1995, pp. 764–765), which requires standardisation of variables in accordance with formulas (3) and (4), determination of standard deviation σ_j for each standardised variable and linear correlation indices r_{ij} among all variables. Values of individual weights are determined on the basis of formula (11):

$$w_j^5 = \frac{C_j}{\sum_{k=1}^n C_k} \quad (11)$$

where

$$C_j = \sigma_j \times \sum_{k=1}^m (1 - r_{ik}) \quad (12)$$

Method of minimisation of distance from the standard (Ma, Fan, Huang, 1999) which consists in determination of such values of weights for individual variables that will minimise the distance defined as follows:

$$\sum_{i=1}^n \sum_{j=1}^m (z_0^+ - z_{ij}) w_j^2 \rightarrow \min \quad (13)$$

where

$$z_0^+ = \begin{cases} \max_i z_{ij} & \text{in the case of stimulants} \\ \min_i z_{ij} & \text{in the case of destimulants} \end{cases} \quad (14)$$

and z_{ij} are determined by way of formulas (3) and (4).

The solution of assumption (13) is to determine the values of individual weights based on the following formula:

$$w_j^6 = \frac{1}{\sum_{i=1}^m (z_{ij} - z_0^+)^2} \left(\frac{1}{\sum_{i=1}^m \left(\frac{1}{\sum_{i=1}^m (z_{ij} - z_0^+)^2} \right)} \right) \quad (15)$$

The values obtained by way of methods 1–6 meet two basic assumptions related with the weights of diagnostic variables, namely: positivity ($w_j > 0$) and summation to units $\left(\sum_{j=1}^m w_j = 1 \right)$.

Effect of selection of method for determination of weights of individual diagnostic variables on the results of investigation of development of regions will be assessed with the TOPSIS method (*technique for order preference by similarity to ideal solution*) (Hwang, Yoon, 1981, pp. 130–132) according to which the ranking of objects is created based on values C_i , determined according to the following formula:

$$C_i = \frac{d_i^-}{d_i^+ + d_i^-} \quad (16)$$

where

$$d_i^+ = \sqrt{\sum_{j=1}^m (z_{ij} \times w_j - z_0^+)^2}, \quad i = 1, 2, \dots, m$$

$$d_i^- = \sqrt{\sum_{j=1}^m (z_{ij} \times w_j - z_0^-)^2}, \quad i = 1, 2, \dots, m \quad (17)$$

$$z_0^+ = \begin{cases} \max_i z_{ij} \times w_j & \text{in the case of stimulants} \\ \min_i z_{ij} \times w_j & \text{in the case of destimulants} \end{cases} \quad (18)$$

$$z_0^- = \begin{cases} \min_i z_{ij} \times w_j & \text{in the case of stimulants} \\ \max_i z_{ij} \times w_j & \text{in the case of destimulants} \end{cases}$$

$$z_{ij} = \frac{x_{ij}}{\sqrt{\sum_{i=1}^m x_{ij}^2}} \quad (19)$$

Study results

Analysing the values of individual weights obtained from the formulas, which assume the possibility of occurrence of their varied level, it can be observed that the most important variable (i.e. the variable having the strongest weight) of all analysed diagnostic variables was either variable X_{14} (in the case of w_3 , w_4 and w_6) or X_{15} (in the case of w_2 and w_5). On the other hand, the lowest weight was associated with variables X_6 (w_6), X_7 (w_5), X_{11} (w_2) or X_{13} (w_3 and w_4). Nevertheless, it can be generally stated that the magnitude of individual diagnostic variables changed depending on the adopted weight determination method. Detailed information on the shaping of the values of obtained weight indices depending on the adopted method is illustrated in Table 1.

Table 1. Values of weight indices for individual diagnostic variables

	w_1^1	w_1^2	w_1^3	w_1^4	w_1^5	w_1^6
X_1	0.0556	0.0596	0.0280	0.0136	0.0645	0.0509
X_2	0.0556	0.0569	0.0449	0.0302	0.0601	0.0536
X_3	0.0556	0.0507	0.0360	0.0217	0.0595	0.0395
X_4	0.0556	0.0642	0.0411	0.0245	0.0725	0.0401
X_5	0.0556	0.0527	0.0228	0.0071	0.0537	0.0269
X_6	0.0556	0.0562	0.1559	0.0979	0.0519	0.0167
X_7	0.0556	0.0483	0.0337	0.0156	0.0436	0.0931
X_8	0.0556	0.0520	0.0470	0.0342	0.0525	0.0576
X_9	0.0556	0.0630	0.0243	0.0089	0.0576	0.0583
X_{10}	0.0556	0.0557	0.0198	0.0059	0.0523	0.0641
X_{11}	0.0556	0.0463	0.0304	0.0132	0.0439	0.0761
X_{12}	0.0556	0.0485	0.0311	0.0138	0.0470	0.0771
X_{13}	0.0556	0.0519	0.0133	0.0027	0.0495	0.0338
X_{14}	0.0556	0.0516	0.2083	0.3937	0.0456	0.1224
X_{15}	0.0556	0.0684	0.0664	0.0559	0.0760	0.0380
X_{16}	0.0556	0.0602	0.0466	0.0371	0.0581	0.0307
X_{17}	0.0556	0.0600	0.1221	0.2129	0.0543	0.0869
X_{18}	0.0556	0.0537	0.0284	0.0111	0.0575	0.0341

Source: own work.

The obtaining of various values of individual weight indices automatically translates into obtaining of various results of voivodship rankings in terms of socioeconomic development. In each case, the Mazovian Voivodship takes the first place in the ranking, but the West-Pomeranian Voivodship, depending on the adopted methods for weighing the diagnostic variables measured in the study, may take the second, third, tenth or even the last, sixteenth, place in the ranking. Table 2 shows details on the shaping of TOPSIS values (C_i) and the voivodship ranking place determined on its basis.

Table 2. Shaping of TOPSIS (C_i) values and the place taken in the ranking (R_i) by individual voivodships, depending on the method for determination of value of weights for individual diagnostic variables

	C_1	R_1	C_2	R_2	C_3	R_3	C_4	R_4	C_5	R_5	C_6	R_6
Lower Silesia (LS)	0.439	7	0.381	9	0.383	7	0.196	7	0.229	9	0.229	9
Kuyavian-Pomeranian (KP)	0.435	8	0.312	13	0.365	13	0.165	14	0.187	12	0.187	12
Lublin (LU)	0.411	13	0.277	16	0.356	14	0.161	16	0.157	15	0.157	15
Lubusz (LB)	0.419	12	0.412	5	0.388	5	0.194	8	0.187	13	0.187	13
Łódź (ŁD)	0.449	6	0.294	15	0.378	8	0.180	11	0.199	10	0.199	10
Lesser Poland (LP)	0.486	3	0.381	8	0.371	9	0.180	10	0.241	8	0.241	8
Masovian (MS)	0.750	1	0.627	1	0.802	1	0.898	1	0.848	1	0.848	1
Opole (OP)	0.411	14	0.331	12	0.369	11	0.176	12	0.179	14	0.179	14
Subcarpathian (SC)	0.467	4	0.400	6	0.385	6	0.188	9	0.244	7	0.244	7
Podlasie (PL)	0.397	15	0.303	14	0.370	10	0.170	13	0.138	16	0.138	16
Pomeranian (PM)	0.501	2	0.413	4	0.393	4	0.214	5	0.273	5	0.273	5
Silesian (SL)	0.430	9	0.358	11	0.366	12	0.164	15	0.190	11	0.190	11
Świętokrzyskie (ŚK)	0.335	16	0.397	7	0.397	3	0.483	2	0.428	2	0.428	2
Warmian-Masurian (WM)	0.424	11	0.375	10	0.398	2	0.245	4	0.249	6	0.249	6
Greater Poland (GP)	0.453	5	0.444	3	0.314	15	0.202	6	0.278	4	0.278	4
Western Pomeranian (WP)	0.425	10	0.446	2	0.301	16	0.278	3	0.341	3	0.341	3

Source: own work.

The degree of conformity of obtained rankings can be assessed by way of the Kendall's tau coefficient (τ). This coefficient assumes values from the range $\langle -1, 1 \rangle$, where value 1 means full conformity, value 0 means lack of conformity in arrangement and value -1 means their full contradiction. In order to verify the hypothesis about the conformity of obtained rankings, the test of significance of the Kendall's tau coefficient is conducted, for which the testing statistics are defined as follows:

$$Z_\tau = \frac{\tau}{\sqrt{\frac{2(2n+5)}{9n(n-1)}}} \quad (20)$$

for $n > 10$, it has asymptotically a regular distribution (Abdi, 2007) (for the investigation of socioeconomic development of voivodships in Poland, $n = 16$).

A statistically significant convergence of obtained rankings occurs when the values of weights are determined:

- with method of uniform degree of magnitude of individual variables (w_j^1), the CRITIC method (w_j^5) and the method of minimisation of distance from the standard (w_j^6),

- with method based on standard deviation of standardised variables (w_j^2) and the following methods: method of entropy (w_j^4), CRITIC method (w_j^5) and the method of minimisation of distance from the standard (w_j^6),
- with method based on the primary variable variability index (w_j^3) and entropy (w_j^4),
- methods of entropy (w_j^4), CRITIC (w_j^5) and minimisation of distance from the standard (w_j^6) (cf. Table 3).

Table 3. Values of the Kendall's tau coefficient, examining the conformity of the obtained rankings (values over the main diagonal) along with the p-value for the test assessing the statistical significance of the obtained Kendall's tau coefficient (under the main diagonal)

	w_j^1	w_j^2	w_j^3	w_j^4	w_j^5	w_j^6
w_j^1	x	1.8009	0.7204	1.1706	2.2511	2.2511
w_j^2	0.0717	x	1.2606	3.3317	3.5118	3.5118
w_j^3	0.4713	0.2074	x	2.7914	1.7109	1.7109
w_j^4	0.2418	8.63E-04	0.0052	x	3.9620	3.9620
w_j^5	0.0244	4.45E-04	0.0871	7.43E-05	x	5.4027
w_j^6	0.0244	4.45E-04	0.0871	7.43E-05	6.56E-08	x

Source: own work.

The graphic comparison of results of arranging individual voivodships in 2016 indicates a certain dependency of the obtained place in the ranking on the manner of weighing the magnitude in the investigation of individual diagnostic variables (cf. Figure 1).

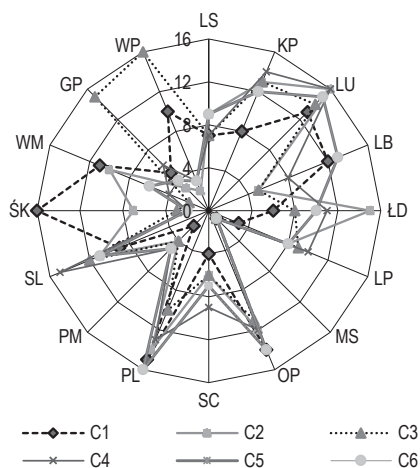


Figure 1. Places of voivodships of Poland based on the level of socioeconomic development in 2016

Source: own work.

Conclusions

On the basis of conducted analyses, it seems legitimate to put forward the following conclusions:

1. In the case of investigation of regional development with methods being part of a multi-dimensional comparative analysis, the assumption of a certain diagnostic variable weighing system may significantly influence the obtained final results of the investigation.
2. It seems debatable to indicate one specific method for determination of the values of weights as the best method, but it also needs to be borne in mind that the assumption of equal magnitude of all diagnostic variables, which occurs in most such investigations, is equal to selecting a specific method – method of uniform degree of magnitude of individual variables described by formula (1).
3. It seems valid to propose that such studies not only present the final results, but also describe the study methods in detail. It will allow for exact repetition of the conducted analyses and possible checking of their correctness and for, which seems more important, explanation of any differences in rankings of objects obtained by various researchers even if they adopt the same diagnostic variables.

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BENEFITS AND THREATS RELATED TO THE FUNCTIONING OF POLISH TOURIST COMPANIES AGAINST THE BACKGROUND OF THE LIBERALISATION OF THE SERVICES MARKET

ANNA DĄBROWSKA,¹ MIROŚŁAWA JANOSŃ-KRESŁO²

¹ Institute for Market, Consumption and Business Cycles Research, POLAND
e-mail: annadabrowska1@wp.pl

² Warsaw School of Economics, POLAND
e-mail: mjanos@sgh.waw.pl

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ABSTRACT The liberalisation of the services market, which affects also tourist services, aims at the transformation of the economic structure, increasing economic efficiency and economic development. The tourism sector of economic activity has the potential to stimulate economic growth and increase employment in the EU simultaneously contributing to the economic and social development and integration. The objective of this article is to present the findings of the quantitative research related to the discussed issue, i.e. the benefits and threats related to the functioning of Polish tourist businesses in the European Union markets in the era of liberalization of the services market. In the article the authors have used source literature, secondary data as well as the findings of a study carried out as part of a research project financed by the National Science Centre (NCN) 2015/17/B/HS4/02750 "Liberalization of the services market in the EU as a factor increasing the innovativeness and competitiveness of Polish service companies".

Introduction

The economic integration of Europe creates opportunities to change conditions of rendering services in the territory of the European Union, including Poland, which is also confirmed by the authors' empirical research. The liberalisation of the services market, which affects also tourist services, aims at the transformation of the economic structure, increasing economic efficiency and economic development.

The main sources of law related to rendering services in the territory of the European Union are the Treaty on the Functioning of the European Union (Art. 56) (The Treaty..., 2012), the Directive 2006/123/EC of the European Parliament and the Council of 12 December 2006 on the internal services market, the so-called Services Directive (Directive..., 2006). The Treaty provides for the general principle of freedom to render services. This implies a prohibition on the restriction of freedom to provide services within the EU in relation to nationals of the Member States who are owners of businesses in the Member State other than that of the client, i.e. the recipient of the service. In turn, the Services Directive aims at facilitating entrepreneurship by eliminating administrative and legal barriers, simplifying the system of providing cross-border services in other EU countries, enabling entrepreneurs to obtain information and fulfil administrative procedures in one place in each country. The Services Directive is also important for consumers because it gives them the opportunity to choose from a wider, more diversified offer, both in terms of price and quality, and it provides easier access to services throughout the EU. The Services Directive refers, among others, to tourist services.

The tourism sector should fully benefit from the integration of the European services market. Tourism is an important and modern sphere of the economic activity; it is one of the basic measures of the standard of living of societies as well as an indicator of their civilizational development. The tourism sector of economic activity has the potential to stimulate economic growth and increase employment in the EU simultaneously contributing to the economic and social development and integration.

Europe has strengthened its position as the most popular tourist destination in the world. The travellers' arrivals in Europe in 2016 increased to 620 million, which represents an annual increase of 2%. The dynamics of the tourist traffic to particular regions of Europe were diversified, which was the reflection of the risk related to the safety of tourists. The tourists' arrivals to Northern Europe increased by 6%, and to Central European countries by 4%, to Southern Europe by 1%, and to Western Europe, they remained at the same level as last year (Sustained..., 2017).

As Taleb Rifai, the Secretary General of UNWTO, said, "As we celebrate 2017 as the International Year of Sustainable Tourism for Development, we welcome the continued development of tourism and recall that with growth comes increased responsibility to ensure tourism can contribute to sustainability in all its three pillars – economic, social and environmental" (World..., 2017).

Tourism in the EU is mainly of inter-European character. In recent years, one may observe a growing importance of several days' and single-day travel and the use of accommodation in small motels and hotel facilities, as well as growing importance of the Internet for reservations and travel planning.

In the last years, the European Union has made a major contribution to creating a European tourism policy. Much attention is being given to factors which are decisive for its competitiveness as well as to the requirements of sustainable development. The entry into force of the Treaty of Lisbon has highlighted the role of tourism, while the EU has been empowered to support, coordinate and supplement the activity undertaken by the Member States. This represents significant progress, brings the necessary transparency and facilitates a coherent framework for action (Europe..., 2010).

It is worth noting that the European Commission recognizing the changes taking place in tourism and with the purpose of more detailed monitoring of new phenomena in this sphere of activity took a new initiative in 2011 with regard to creating a new regulation harmonizing the procedures for preparing and collecting statistical data concerning tourism services (Regulation..., 2011).

Liberalisation of the services market as an opportunity for the internationalization of Polish service companies

Since the introduction of the single internal market, Europe has changed as a result of the reunification, expansion and greater integration. (Fabrini, 2015; Engan, 2015).

The freedom to provide services and the freedom to establish companies are fundamental freedoms of the European single market. Pursuant to the Article 57 of the Treaty on the Functioning of the European Union – TFUE, “services shall be considered to be ‘services’ within the meaning of the Treaties where they are normally provided for remuneration, in so far as they are not governed by the provisions relating to freedom of movement for goods, capital and persons”. The legal basis of the freedom to provide services are articles 57-62 TFUE and the Services Directive from 2006.

Addressing the problem of the share of services in the integration process one should relate it to the creation of the internal services market, as reflected in the Lisbon Strategy. In this strategy, the European Commission has highlighted three key areas: the competitiveness of companies (services increasingly determine the competitiveness of enterprises), innovations (knowledge enhances services, raises the standard of services, enables and stimulates the development of modern technologies), globalization of the market (the development of e-services and information society).

Research methodology

Searching for answers to questions concerning the benefits and barriers (both administrative and regulatory) for Polish service companies resulting mainly from the liberalisation of the services market, and especially from the transposition of the Services Directive, and also whether the implemented solutions affect the competitiveness and innovativeness of Polish service companies requires carrying out desk research and also planning quantitative and qualitative research. Quantitative research has been conducted by means of the “face to face” method with the application of a survey questionnaire in December 2016.

The respondents were Polish service companies providing services covered by the Services Directive in the territory of the EU countries. The research has been preceded by the pilot study carried out in accordance with the ESOMAR International Code of Market Research and Social Research. 400 enterprises taking part in the research operated in all markets of the European Union, however, most frequently they rendered services in such countries as: Germany (64% indications), France (29%), Italy (29%), Czech Republic (28%), the Netherlands (23%), Great Britain (22%) and Spain (21%). 70 enterprises (17.5%) represented the group operating in the tourism, accommodation and catering sectors, including enterprises: small – 79%, medium – 14%, large – 7%.

The objective of this article is to present the findings of the quantitative research related to the discussed issue, i.e. the benefits and threats related to the functioning of Polish tourist businesses in the European Union markets in the era of liberalization of the services market.

Benefits and threats related to the activity of tourist enterprises in the markets of other countries of the European Union

The examined enterprises, which operated in other markets of the European Union for at least 2 years, have obtained the experience which allowed them to point to the relevant benefits and threats. The distinguished factors

were assigned specific scores from 0 to 5 points, where 5 represented the highest importance; 4 – high importance; 3 – moderate importance; 2 – low importance; 1 – very low importance; 0 – no importance.

Taking into account the significance of the benefits for Polish tourist enterprises as felt by respondents, one may point to the benefits with large (highest and high) importance, moderate and low (low and very low) importance (Table 1).

Table 1. Benefits and threats related to the functioning of Polish tourist enterprises in the EU markets

Benefits	Percentage of indications		Threats	Percentage of indications	
	A	B		A	B
Larger market	21	58	Still too much bureaucracy	19	43
Opportunity to win new orders	14	55	Changing exchange rates	35	27
Opportunity to develop the business	8	45	Too high costs	35	19
Increased efficiency	20	45	Too much competition	25	27
Possibility to increase turnover	17	46	No support from the state administration	30	27
Possibility to win new customers	24	47	Considerable influx of foreign companies	29	23
Possibility of establishing new business contacts	15	37	Problems with payment for the rendered services	36	25
Possibility to expand the services range	21	31	Too complicated regulations	31	15
Higher prices on the European market	18	36	Language barriers	28	24
Access to information via the Single Contact Point	18	35	Complex provisions	32	12
Marketing benefits	30	33	Too high expectations of employees	30	24
Faster access to information on contractors	18	26	The imbalance between quality and price	40	24
Possibility to draw from the experience of others	30	23	Other standards of rendering services	24	16
Faster ways of dealing with formalities	36	22	Eastern European markets are very difficult	32	20
Simplification of tax obligations	33	27	Limited access to information	24	17
Easier access to suitable workforce	30	21	Gap in technological development	46	23
The possibility to simplify procedures	48	20	Western EU markets are very difficult	33	16
Better information inflow	23	22	Insufficient promotion of Polish service providers and the economy	32	14
Learning the language of the country where the service is provided	34	23	Polish people are seen as cheap labour force	32	16
Reducing bureaucratic procedures	33	20	Perceiving the Poles as worse service providers	41	23
			Low openness of customers to Polish companies	35	7

A – very low and low importance; B – high and highest importance.

Source: the authors' own research 2017.

It may be stated that the greatest benefits of providing services in the territory of other countries are seen mainly in the context of a widely perceived development of the activity – increasing the market, obtaining new orders and winning new clients, increasing revenue, increased efficiency, the development of the company and marketing benefits. The responses concerning the possibility to export services in the form of trans-border services (66%) and the possibility of establishing branches of companies and outlets in other countries (76%) appear to support this claim.

The perceived benefits which are of moderate importance for the respondents are: the possibility to establish business contacts, higher prices in the European market, learning the language of the country where the services

are provided, the possibility to draw on the experience of others, better flow of information, decreasing bureaucratic procedures, the possibility to expand services range, easier access to suitable workforce, faster access to information on contractors. The issues connected with procedures – the possibility of establishing procedures, faster ways of dealing with formalities, and also simplification of tax obligations. The benefits which were seen as having no importance (the highest ratio of indications – 16%) were: the possibility to simplify procedures, faster ways of dealing with formalities and faster information on contractors (13%). The remaining indications did not exceed 10%.

In respondents' view, the greatest threat is excessive bureaucracy. Other threats were seen as less important. The aspects which were seen as threats of moderate importance were: greater competition, no support from the state, administration, language barriers, other standards of providing services, low openness of clients to Polish companies, very difficult Western EU markets, insufficient promotion of Polish service providers and economy, the perception of Poles as cheap labour force, unclear regulations, complicated provisions, too high competition and limited access to information. The factors seen as threats of low importance were: changes in currency exchange rates, too high expectations on the part of labour force, perception of Polish entities as worse service providers, gap in the technological development, the fact that Eastern EU markets are very difficult, the fact that Western EU markets are very difficult and costs which are too high. The most commonly indicated threats of no importance were: too high expectations of the workforce and difficult Western EU markets – 19% each. Interestingly, the lowest percentage of indications were related to strong competition and the gap in technological development – 4% each.

It is worth mentioning that, in the opinion of the examined service companies of the tourism sector, the liberalisation of the services market has impacted the increase in the value of the export of services. The highest ratio of indications concerning the years 2013–2016 (59%) was connected with the increase within the range 20–29%, none of the respondents indicated the increase below 10%. Unfortunately, for some of the companies, the realisation of the service exports to the EU markets is also connected with overcoming regulatory (16%) and administrative barriers (23%). In the opinion of 29% of the respondents, barriers are of discriminatory nature.

Conclusion

Under the conditions of European integration and progressing globalisation, the interest in the international trade of services appears to be increasing. The process is determined by, among others, a considerable growth in the international exchange of goods, which is accompanied by the increase in the value of the related services turnover. At present, services are becoming an indispensable element of goods exchange; they contribute to the increase in the customer value. The growing liberalisation of the services market, creating new possibilities for international exchange, is gaining in importance. Building the EU single services market further facilitates the changes.

The findings of the research among Polish companies providing tourist services in the markets of other EU countries have shown that liberalisation is seen in the context of benefits as well as threats. While the benefits are mainly related to the opportunities for the development of the company, the threats are mainly connected with bureaucracy. It may be stated that providing services, including tourist services, in the markets of other EU countries creates a challenge for Polish companies, especially those from the SMEs sector. The latter can be said of the entities from the business environment which may undertake activity enabling service companies to fully participate in the benefits of the internal market.

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SPORTS CLUBS AS LEARNING ORGANIZATIONS – POLISH MODEL

ANNA DRAB-KUROWSKA,¹ PAWEŁ KUŻBIK²

¹ University of Szczecin, POLAND
e-mail: anna.drab@wzieu.pl

² University of Lodz, POLAND
e-mail: pawel.kuzbik@uni.lodz.pl

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ABSTRACT Sports clubs in Poland, wanting to develop and become more and more competitive, cannot be based only on material resources. The past and present of this type of organization clearly show that this chosen direction is fatal. Contemporary, modern sports organizations must learn to draw on intangible resources such as knowledge gathered among employees and management, resources and technological capabilities, the experience of the whole organization or specific partners – stakeholders ready to support the club at every organizational level. The aim of the article is an attempt to recognize the idea of a learning organization in the context of functioning sports clubs in Poland.

Introduction

Contemporary economy, called the “knowledge-based economy” (KBE), or the New Economy creates a new economic reality, which is why it is necessary to undertake far-reaching changes to adapt to functioning in the conditions of globalization, high level of competition resulting from the creation of cooperative systems, intense innovation processes, and the rapid flow of information and the development of knowledge resources.

For contemporary organizations that want to survive and have a chance for further development, knowledge should be a key strategic resource (Budziewicz-Guźlecka, Drab-Kurowska, 2009, p. 39). Observing the activities of the organization, it can be clearly seen that they are not always sufficient. The aim of the article is an attempt to recognize the idea of a learning organization in the context of functioning sports clubs in Poland. The article presents the following research hypothesis – Intensification of activities of sports clubs in the area of development of a learning organization will increase the effectiveness of their functioning. In reference to the assumed goal and the hypothesis adopted in the article, the following research question was posed – which areas of sports clubs activity should be supported in order to strengthen their development towards a learning organization? In an attempt to answer the question, the article first referred to the essence and specificity of a learning organization. Next, the specificity of sports clubs was presented. In contrast, a key component of the article is to propose a model that will allow for the development of the sports club as a learning organization.

The essence of a learning organization

When attempting to define the concept of a learning organization, it should be pointed out that it is treated as one of many contemporary conceptual models of organizations presenting mechanisms, structures, principles and instruments of action that allow economic entities, after their implementation, to adapt to the environment, flexibly transform the organization in the event of changes, and effectively develop business activities (Mikuła, 2017 p. 25). The concept of a learning organization is not a new concept. Opinions emerge, according to which this concept is almost 30 years old – and some see its beginning in the middle of the 20th century (Olszewska, 2013, pp. 17–19, Burke, Noumair, 2015, pp. 13–13). It needs to be emphasized that the idea is currently most up-to-date. The active use of knowledge is based on its continuous development. Organizations must be focused on constant innovation, on a continuous systematic change of operating techniques (Budziewicz-Guźlecka, 2014, p. 12). Business entities, including sports clubs, in a natural way, become learning organizations which are the subject of considerations in this article. Referring to the term of the learning organization, reference should be made to definitions that emphasize its specificity. Seebacher identifies a learning organization as a company in which people constantly expand their ability to create the desired results. New and expansive models of thinking are the main motive for development, where collective aspirations are a free creator and where people constantly learn how to learn (Seebacher, 2002, p. 144.) Sitko-Lutek indicates the non-accidental nature of acquired information. She defines it as an “organization” that consciously acquires new knowledge, skills and competencies, as well as shapes desirable values and attitudes. In addition, the organization learns both thanks to the relationships that take place within it, and thanks to the environment (customers, suppliers, competitors). This phenomenon occurs at all levels of the organization, in relation to both individuals and teams. Improvement of the organization consists in enabling it to function efficiently not only in the present but also in the future (Sitko-Lutek, 2009, p. 75). Another definition shifts the focus to employees, recognizing that all employees see themselves as learners on behalf of the company and take responsibility for their personal development to keep up with the pace of change. In this definition, the traditional relationship between the supervisor and the subordinate has been replaced by self-management, and the employees are proactive and take action on their own initiative. It should be emphasized that the top-down management is limited and the scope of supervision is reduced. Employees, who take responsibility for personal learning and rationalization of work, have room for improvement and have an impact on business (Kaczmarek, 2012, p. 467).

As it can be seen, the definitions of the learning organization and its features particularly emphasize the learning processes of people. In practice, the key to understanding the idea and creating a learning organization is to master and consciously use the processes of organizational learning. These organizations gather experiences, formulate conclusions based on them and store them in the warehouses of organizational knowledge (Olszewska, 2013, p. 16).

The core of a learning organization is the lifelong learning program. There are five pillars that are considered crucial for each organization (Senge 2016, p. 6):

- personal mastery,
- psychological models,
- a shared vision,
- team learning,
- system thinking.

Summing up the considerations concerning the essence of the learning organization, it is clearly visible that this is a key phenomenon for the development of every economy and entities operating on the market. It is necessary to undertake multidirectional activities, but the common area is knowledge and the human factor, which are the core of the learning organization.

The specificity of the sports club environment

In order to understand the specificity of the learning organization in the context of sports clubs and the role of managerial staff in this area, it is necessary to clearly indicate a specificity that distinguishes this type of organization from those that are considered traditional. It should be agreed that sports organizations such as sports clubs have the overriding objective of functioning which is creating conditions for playing sports and organizing sporting events (Szwarc, 2000, pp. 23–25), but nowadays, this understanding of the sports club is insufficient. Professional clubs participating in sports competition at the highest league/competitive levels are subject to similar rules of the market economy, as are organizations in many other areas of life (Waśkowski, 2011, p. 253).

Although sports clubs must also follow the principles of the economic calculation, build effective structures, take care of clients, search for new techniques and management methods, the sport area is so specific and clearly different from traditional economic organizations (Kuźbik, 2014, p. 197), that it is a necessity for such clubs to become the learning and, consequently, intelligent organizations; organizations that will be able to react quickly to changing conditions in the environment, not only considering sports but also economic and social issues. And finally, organizations that will develop improve and become more competitive, ready to meet the high expectations of all stakeholder groups.

One of the most important interest groups is supporters who are keenly interested in the functioning of a given club (organization), who often emphasize (in various places, not only at the stadium) their deep attachment to club colours which have a strong and extraordinary impact on the functioning of a given club. Therefore, it is hard to disagree that they also become a source of extremely valuable information that not only can but also should translate into the club's proper knowledge, allowing for upgrading organizational competencies. Therefore, it is crucial to skilfully build a relationship between this group and the managerial staff and the entire organization, because no club in the world can afford, not to use such a characteristic network of connections, relationships and

knowledge at the same time (Kuźbik, 2016, pp. 91–100). Figure 1 presents key elements shaping the surroundings of sports organizations.

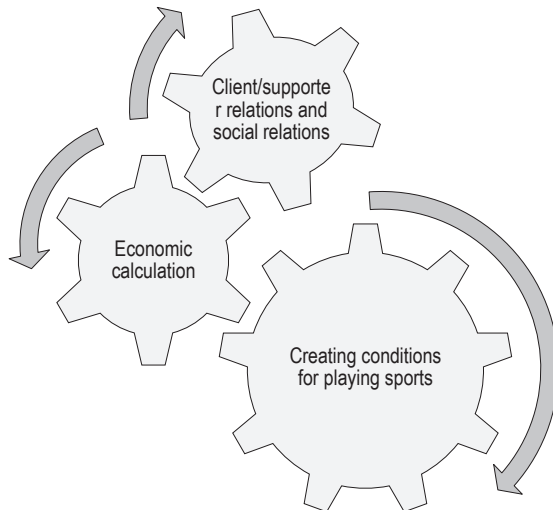


Figure 1. Elements shaping the surroundings of sports organizations

Source: own study.

It should be emphasized that between the indicated elements there must exist close relations which constitute a starting point for creating conditions for the development of a learning organization. It should be pointed out that the specificity of organizations, such as sports clubs, where the starting point is the creation of conditions for sports, allows a specialized approach to the problem of shaping relationships within the learning organization

Sports club as a learning organization — a challenge for managers

Taking into account the determinants and features of the learning organization, one should agree that the basic foundation here is intangible capital in the form of knowledge. But it is the managers who have the role to use it in the right way in management processes. Therefore, it is necessary to indicate the differences that allow sport club managers to build knowledge management systems aimed at transforming the club from a “traditional” organization to a learning organization. Elements differentiating the surroundings of a traditional business organization from sports organization are (Sznajder, 2008, p. 61):

1. Sports organizations operate on the sports market on the supply side and are strongly diversified (objectives, legal form, organizational structure, scope of activity, relevance to the whole sport, decision-making methods, etc.).
2. The goals of a sports organization (Foster, Greyser, Walsh 2006, p. 8) are more diverse than the goals of enterprises operating in other industries (sports score, financial profit, satisfaction with trophies, local community integration, social mission, etc.).

3. Decisions of the governing bodies of sports organizations are quickly commented on by the media and fans.
4. Professional clubs on the one hand compete with each other, and on the other are dependent on each other (player transfers, exchange of experience and technology, sports score, infrastructure, finance).
5. The sports market is regulated. This means that clubs that are commercial law companies must respect not only generally applicable regulations, but also specific rules regarding sport (Sports Act in Poland, regulations of Polish Sports Associations, Regulations of national companies managing professional leagues, international regulations established by UEFA and FIFA, IOC, etc.).
6. The sports market is doubly dual. Clubs operate simultaneously on the sports market as well as on the advertising and sponsoring market. Sales take place on the primary market (sports spectacle) and on the secondary market (sale of a sports product through the media, other economic activity).
7. Products offered by clubs vary depending on whether they are offered to consumers (sports spectacle, club souvenirs, products resulting from additional business activities, etc.) or institutional buyers (television and image rights, etc.).

In addition, it is also worth adding the following aspects (Waśkowski, 2015):

1. Sport is by nature an activity based on physical activity, so from a marketing point of view it is an intangible and subjectively assessed product, and consumers (viewers or participants) buy impressions.
2. Sport evokes a strong emotional experience among consumers, strengthens personal ties because it is mostly consumed in public. In addition, it is a universal medium of communication and refers to all sections of life (geographical, demographic, cultural, economic, religious, political, etc.).
3. The result of sports competition is unpredictable and the competition cannot be repeated. This means that the sports organization manager cannot provide consumers with a specific effect, both in the form of the outcome of the game and its level. This has important consequences in the process of quality assurance of services provided.

In connection with the above-presented specificity of the market and the environment of the sports club, it becomes necessary to implement a management system that is able to react appropriately to this specificity and draw conclusions for the future. As Alberto Lozano Platonoff writes, in this situation the essence is building such a management model, which would not only be compatible with the expectations of a wide group of stakeholders and build for them value in the long term, but above all which would learn to listen and respond properly, that is learn to understand the surroundings and react in the right way, often in real time.

Management in this sense should, therefore, be dynamic in nature, i.e. it is an integrated process based on collections of synthetic knowledge about the organization and its environment, along with the method of their continuous updating and improvement enabling decision makers to give direction on an on-going basis to the organization towards the best fulfilment of short-, medium- and long-term expectations of stakeholders (Platonoff, 2009, p. 40).

As a consequence, the activities of the club, and thus the managerial staff, should be focused on the following activities (Platonoff, p. 43):

- implementation of an appropriate value system,
- striving to make the effects of functioning of the club measurable, because only what is measurable can be thoroughly analyzed and the reasons for success or failure can be indicated,

- maintaining at the same time a high degree of organization stability (sorting out information, tasks and activities) and flexibility in order to quickly make strategic adjustments in the organization's activities,
- treating dynamic management as a process of continuous learning,
- development of an individual system of measures for the strategic development of the organization,
- creating a climate of co-responsibility of the club's participants for its development,
- creating an atmosphere conducive to continuous learning, openness to ideas, creativity,
- delegation and expecting individual responsibility for decisions and effects of actions taken,
- determining the added value of each club participant in its development and treating it as the basis of the incentive system,
- developing the evaluation system in the perspective of the interdependence of all participants and teams (departments, sections) in creating the added value of the club,
- creating conditions for cooperation at particular levels of management.

Analyses carried out by the author show that employees of sports clubs are not focused on self-development or it is not supported by the management. Employees are often expected to undertake little-complex tasks aimed at achieving operational goals, without a clear focus on the process of drawing conclusions and improving themselves, and consequently the organization as a whole. Meanwhile, the manager's role should be to treat team members as "independent business units", create conditions for extending the competencies of team members, promote complementarity of partners' competencies in the chain of value creation, and eliminate contradictions at the interface between the organization's goal and individual goals (Jabłoński, 2015, p. 64).

In a sports club heading towards a learning, and consequently, intelligent organization, the manager's tasks should first and foremost include the role of auditor of employee competencies, so as to make a proper verification of the actual knowledge possessed by the employees. The next step is to take on the right leadership role. The manager's role is not to create the right number of rules for the organization, but to make sure that people create their own rules together. He is not a game designer and does not have to deal with low-level rules of the game. He configures high-level parameters such as diversity of team members, information flows between people and maintaining communication between teams (Appelo, 2016, p. 155). Equally important is the role of the information

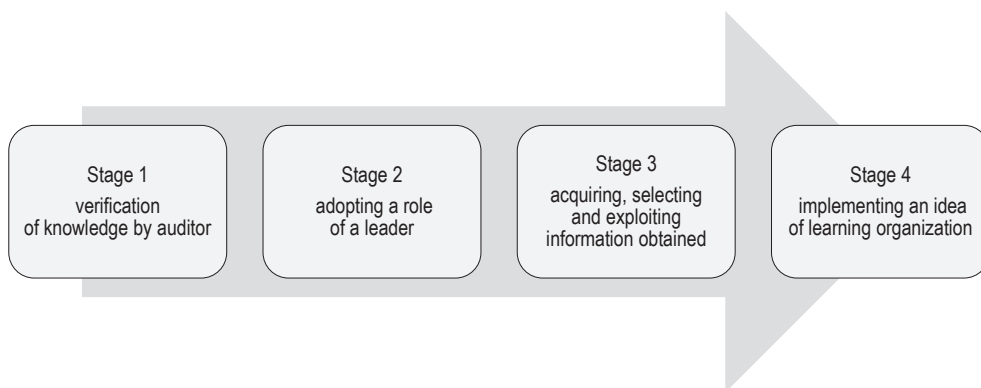


Figure 2. Model of development of sports club into learning organization

Source: own study.

seeker. It is important for the manager to properly acquire, select and exploit the information obtained. Only then he will be ready to build the right organizational culture focused on the learning process, and to motivate the employees themselves to adopt an attitude of “open mind.” And finally, it becomes important that the manager himself is ready to take the role of an initiator, involved in the process of implementing the assumed idea of a learning organization. The individual stages, crucial for the development of a sports club into a learning organization, are shown in Figure 2.

Conclusions

Sports clubs in Poland, wanting to develop and become more and more competitive, cannot be based only on material resources. The past and present of this type of organization clearly show that this chosen direction is fatal. Contemporary, modern sports organizations must learn to draw on intangible resources such as knowledge gathered among employees and management, resources and technological capabilities, the experience of the whole organization or specific partners – stakeholders ready to support the club at every organizational level. The ability to respond to environmental stimuli, often in real time, will distinguish these organizations from others and make them more competitive and more attractive for the benefit of all stakeholders and the entire sports industry.

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THEORETICAL BASIS FOR CALCULATION OF CHARGES FOR ACCESS TO RAILWAY INFRASTRUCTURE IN THE LIGHT OF EUROPEAN UNION LAW

JULIUSZ ENGELHARDT

University of Szczecin, POLAND
e-mail: juliusz.engelhardt@wzieu.pl

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ABSTRACT This article discusses the rules for calculation of charges levied for access to railway infrastructure under the European Union directives and based on economic categories such as “marginal costs”, “direct costs”, “fixed costs”, and “variable costs”. The introductory part of the article refers to Directive 91/440, historically the first legal act that referred to the issue of calculation of charges levied for access to railway infrastructure. Subsequently, the provisions of Directive 2001/14, adopted in the so-called “first railway package”, and interpretative ambiguities in this regard were indicated. As a result, the European Commission had for several years promoted the idea that charges levied for access to railway infrastructure should be calculated on the basis of the theoretical category of “marginal cost”, although no provision of the applicable directive indicated such category. Since the Member States did not accept this idea and used their own calculation systems, the European Commission gave rise to infringement proceedings before the Court of Justice of the European Union, accusing several Member States of infringing the provisions of Directive 2001/14, regarding the calculation of charges levied for access to railway infrastructure. Undoubtedly, the most important proceeding was the one against Poland, which concluded with the judgment delivered by the Court of Justice of the European Union of 30 May 2013. The final part of this article includes references to this judgment, as well as new provisions on the calculation of charges levied for access to railway infrastructure set forth in Directive 2012/34, and the implementing regulation 2015/909 issued on its basis.

Introduction

The rules for calculating charges levied for access to railway infrastructure in the European Union were set out for the first time in Directive 91/440 on the development of Community’s railways adopted in July 1991 (Directive 91/440, 1991). Article 8 of this directive stipulated that “The manager of the infrastructure shall charge a fee for the use of the railway infrastructure for which he is responsible”, and further “The user fee, which shall be calculated

in such a way as to avoid any discrimination between railway undertakings, may in particular take into account the mileage, the composition of the train and any specific requirements in terms of such factors as speed, axle load and the degree or period of utilization of the infrastructure” (Directive 91/440, 1991).

Establishing the principle of use of railway infrastructure against payment in 1991 was one of the pillars of the new European Union policy in the railway sector, and was obviously connected with another pillar of this policy in the form of establishing the principle of separation of rail infrastructure management function from an operation function (transport operation) in railway undertakings. In order to facilitate the implementation of Directive 91/440 provisions, on 19 June 1995 the Council of the European Communities adopted, inter alia, Directive No. 95/19, which regarded the allocation of railway infrastructure potential and charging fees for infrastructure (Directive 95/19, 1995). The provisions of this directive, however, did not introduce any new elements regarding the rules for calculating charges levied for access to railway infrastructure, when compared to Directive 91/440. There was still no precise definition of what cost categories should be included in the calculation of infrastructure access charges, and which should not. This was a significant drawback, because the Member States had, in fact, no indication, either theoretical or practical, as to what general principles to use for their own model of calculating charges for access to railway infrastructure.

The charges levied for access to infrastructure in the first railway package

Directive 95/19 was repealed by Directive 2001/14/EC of the European Parliament and of the Council of 26 February 2001 on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification, adopted under the so-called first railway package (Directive 2001/14, 2001). Article 7 (3) of that directive stipulated that “...the charges for the minimum access package and track access to service facilities shall be set at the cost that is directly incurred as a result of operating the train service” (Directive 2001/14). The implementation of this provision and retaining the principle that it is the Member States themselves that determine the specific tariff principles for charges, resulted in introduction of calculation systems for charges levied for access to railway infrastructure by individual countries in 2001–2012, without any other guidance and based on their own interpretations of the term of “cost that is directly incurred as a result of operating the train services”.

However, it should be emphasized that the European Commission used its own interpretation of this term, which was far different from the interpretation introduced by many Member States. This led to spectacular proceedings before the Court of Justice of the European Union, which the European Commission brought in against Poland and several other countries in October 2010. The action before the Court of Justice against Poland (Judgment, 2013) was based on the European Commission’s allegation that Poland did not implement the principle resulting from Directive 2001/14 according to which “the charges for the minimum access package and track access to service facilities shall be set at the cost that is directly incurred as a result of operating the train service” (Article 7(3)). According to the Commission, the quoted regulation referred to the term “marginal costs”, which should be understood only as costs generated by actual train movements, and not the fixed costs which cover, in addition to the costs connected to fare, overhead costs for the operation of the infrastructure which must be borne even in the absence of train movements. During the proceeding, the Polish party argued that the Polish statutory provisions accurately reflect Directive 2001/14 provisions. On the other hand, the Commission’s claim that “the directly incurred cost as a result of operating trains” is “marginal cost” was considered to be unfounded by the Polish side, which

stressed that especially in the absence of the EU definition of the former concept, Member States have a certain level of freedom to determine what should be included in direct cost, as well as use it as base for the amount of charges levied for access to railway infrastructure.

Advocate General at the Court of Justice did not share the European Commission's position regarding the restrictive, in his opinion, view as to the equality of the category of "marginal costs" and "costs that are directly incurred as a result of operating the train services".

Advocate General at the Court of Justice also expressed the view that an attempt to provide the exact legal definition of this term in EU law is unnecessary, as it is a concept in the field of economic sciences, the use of which causes serious practical difficulties. He also acknowledged the correctness of Polish statutory provisions regarding the calculation of charges (The Act, 2007). However, the Advocate raised also a different argument. He questioned the definition of the base for calculating charges set out in the implementing rules for the Railway Act, which, as subservient legislation to the Act, was included in the Regulation of the Minister of Infrastructure¹, and stated that rules lead to inclusion of costs, which manifestly cannot be considered to be directly incurred as a result of operating the train service, when determining the charge for the minimum access package and track access to service facilities. In particular, in the Advocate's view, the maintenance or traffic management costs, that were mentioned in the implementing provisions, may be considered to be only partially directly incurred as a result of operating the train service, because they include fixed costs which must be borne by the manager after a stretch of line on the rail network has been made available to traffic, even in the absence of train movements. However, the financial costs remain unrelated to the train service, whereas financing costs are completely absent. The Advocate General ended his position with stating that the Republic of Poland infringed the relevant provision of Directive 2001/14.

In the light of the available documentation of case C-512/10 against Poland, it seems that the Advocate General at the Court of Justice imprecisely understood the essence of the Polish system of calculation charges levied for access to railway infrastructure resulting from the Act on railway transport. This system can be defined as a result calculation system in which the basis of the access rate calculation was, indeed, the total costs of providing infrastructure access services by the manager of the publicly available infrastructure, from which the amount of the "substitute"² budgetary grant, specifically the one financing a part of these costs, was deducted, and thus defining the so-called calculation costs, i.e. the part of costs which was later divided by operation work in order to determine the level of unit rates. The essence of the calculation system defined in the Polish Rail Transport Act, which was in force during the proceedings before the Court of Justice, is expressed in formula (1):

$$\text{Chrg} \frac{PAX + CARGO}{\ddot{u}} = \frac{\ddot{u} \frac{MIN}{ACS \cdot PLAN} - \frac{MAINT}{BDG \cdot PLAN}}{\text{train} - km \frac{PAX + CARGO}{PLAN}} = \frac{\frac{MIN - CALC}{ACS \cdot PLAN}}{\text{train} - km \frac{PAX + CARGO}{PLAN}} \quad (1)$$

¹ Par. 8.1., Point 1–4 of the Ordinance of the Minister of Infrastructure of February 27, 2009 regarding the conditions of access and use of railway infrastructure (Decree, 2009), read as follows: „1. In calculating the rates for provision of the railway infrastructure, the infrastructure manager must take into consideration 1) direct costs, which cover a) maintenance costs, b) rail traffic management costs c) amortisation; 2) the indirect costs of the activity, covering the reasonable expenses of the infrastructure manager other than the costs set out in point 1 and 3; 3) financing costs relating to the repayment of loans taken out by the manager to develop and modernise the available infrastructure.”

² It is worth noting here that Advocate General at the Court of Justice did not notice in the course of the proceeding the following provision of the then binding act on rail transport: “In setting the unit rates for the basic charge, the manager shall subtract from the amount earmarked for expenses for provision of the railway infrastructure to rail carriers the subsidy for the renovation and maintenance of the infrastructure from the budget of the State or of the local authorities and the resources provided from the Rail Fund.”

where:

- $Chrg_{AVG}^{PAX+CARGO}$ – average charge for access to railway infrastructure,
- $C_{ACC-PLAN}^i$ – planned total costs of minimum access to railway infrastructure,
- $S_{BDG-PLAN}^{MAINT}$ – planned budget subsidy for repairs and maintenance of railway infrastructure,
- $train - km_{PLAN}^{PAX+CARGO}$ – planned operation work (length of routes planned to be sold) in train-kilometres,
- $C_{ACS-PLAN}^{MIN-CALC}$ – planned total calculation costs.

Based on the formula (1), it can be concluded that the cost category $C_{ACS-PLAN}^{MIN-CALC}$, depending on the amount of the budget subsidy granted to the infrastructure manager in a given year $S_{BDG-PLAN}^{MAINT}$, could express, in its economic terms, costs that were directly incurred as a result of operating the train services, i.e. the category defined in Directive 2001/14. However, the Advocate General did not investigate this problem at all.

The Court of Justice has eventually ruled that “by permitting the inclusion, in the calculation of charges levied for the minimum access package and track access to service facilities, of costs which cannot be regarded as costs directly incurred as a result of operating the train service, the Republic of Poland has failed to fulfil its obligations under Articles 7 (3) of Directive 2001/14/EC of the European Parliament and of the Council on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification, which was amended by Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004” (Judgment, 2013). It is also worth citing some guidelines for the construction of the calculation system of charges levied for access to the railway infrastructure that result from the Judgment. According to the Court of Justice (Judgment, 2013):

- The costs connected with signalling, traffic management, maintenance and repairs are liable to vary, at least partially, depending on traffic and, accordingly, may be considered, in part, to be directly incurred as a result of operating the train service.
- In the scope, in which they include fixed costs relating to the provision of a stretch of line on the rail network which the manager must bear even in the absence of train movements, the maintenance and traffic management costs regarding maintenance and rail traffic management... must be considered to be only partially directly incurred as a result of operating the train service.
- Indirect costs and financial costs... it is clear that they do not have a direct link with the operation of the train service.
- In the scope in which depreciation is determined, not on the basis of the actual wear of the infrastructure attributable to traffic, but with reference to accounting rules, it cannot be viewed as being directly incurred as a result of operating the train service.

In the light of the Judgment, the formula for calculating charges for access to railway infrastructure can be generally written down as follows:

$$Chrg_{AVG}^{PAX+CARGO} = \frac{C_{DIRECT-PLAN}^{PART} + DEPN_{DIRECT}}{train - km_{CALC}^{PAX+CARGO}} \quad (2)$$

where:

- $C_{DIRECT-PLAN}^{PART}$ – costs related to signalling, traffic management, maintenance and repairs, which are partly incurred as a result of operating the train services,
- $DEPN_{DIRECT}$ – depreciation cost determined directly on the basis of the actual wear of the infrastructure attributable to traffic,
- $train - km_{CALC}^{PAX+CARGO}$ – operational work in train-kilometres, included in the calculation of charges for access to the infrastructure.

It can be noticed that the general principle of the calculation system of charges levied for access to railway infrastructure, in the light of the Judgment, completely disregards the amount of budget subsidies granted to the infrastructure manager. Therefore, it should be recognized that the costs included in the charge calculation, their type and scope are a completely autonomous issue in relation to the budget subsidy for infrastructure maintenance. The last should be granted to the administrator based on separate rules, however EU law does not introduce stricter restrictions related to this issue, but instead indicates only that the Member State should conclude with the infrastructure manager agreements that cover the period of not less than three years and which provide for state financing. However, such agreements must include the so-called “incentives” to reduce the costs of providing infrastructure and the amount of access charges (Directive 2012/34/EU, 2012).

The Court of Justice, within the limits of their respective competences, dealt with the law and avoided taking a stand on the economics of infrastructure managers. Nevertheless, it could not completely move away from the economic problems. Although the Court rejected the category of “marginal costs” promoted by the European Commission as a base for charge calculations, it introduced into the legal system the economic category of “fixed costs”, which are incurred as a result of operation of train services that cannot be included in the charge calculation, and “other costs” incurred as a result of operation of train services, which are to be the basis for calculating charges. Thus, indirectly, the Court pointed to the category of “variable costs”³ incurred as a result of operating the train services, which constitute a basis for calculation of charges levied for access to railway infrastructure. On the other hand, the fact that in economics the theoretical concept of “marginal cost”, which is understood as the increase in the total cost of a production run for making one additional unit, is equivalent to a practical category appearing in enterprises in the form of a “variable cost per unit” of production is a completely different matter. It is therefore worth presenting a derivation that support this thesis.

In the classical economics, marginal cost C_M , with the index “1” of the actual value and the index “0” of the previous value, can be presented as follows:

$$C_M = \frac{\Delta C}{\Delta P} = \frac{C_1 - C_0}{P_1 - P_0} \quad (3)$$

where:

- ΔC – increase of total production costs by unit,
- ΔP – production increase by unit,
- C, P – with indexes 1 or 0, respectively actual and previous value of costs and production.

³ The obvious consequence of distinguishing the category of fixed costs in the judgment is that all other costs are variable costs.

It should be noted that in the above calculation the denominator of formula (3) is always 1, because:

$$P_1 - P_0 = P_0 + 1 - P_0 = 1 \quad (4)$$

and therefore, in further analysis, it can be omitted.

The total costs of formula (3) can be written analytically as follows:

$$C = C_V^T + C_F^T = (C_V^U \times P) + C_F^T \quad (5)$$

where:

C_V^T – total variable costs,

C_F^T – total fixed costs,

C_V^U – variable unit cost.

By using the entered indexes of the actual and previous values, and omitting the formula denominator (3), which amounts to 1, it is possible to express it in the following way:

$$C_M = (C_{V1}^U \times P_1) + C_{F1}^T - (C_{V0}^U \times P_0) - C_{F0}^T \quad (6)$$

Due to the short-term nature of the analysis, it is assumed that $C_{F1}^T = C_{F0}^T$, and therefore, after the reduction, the formula (6) has the form:

$$C_M = (C_{V1}^U \times P_1) - (C_{V0}^U \times P_0) \quad (7)$$

and then

$$C_M = C_{V1}^U \times (P_0 + 1) - (C_{V0}^U \times P_0) \quad (8)$$

it can be written that:

$$C_M = C_{V1}^U + (C_{V1}^U \times P_0) - (C_{V0}^U \times P_0) \quad (9)$$

In accordance with the theory of economics, in the short-term analysis, it is assumed that the variable cost per unit is the same for each unit of production,⁴ i.e. it can be written that:

$$C_{V1}^U = C_{V0}^U \quad (10)$$

and therefore:

$$C_M = C_{V1}^U \quad (11)$$

On the basis of the above derivation, it can be concluded that the theoretical category of “marginal cost” present in economics represents, in the practical terms of the functioning of enterprises, a value equivalent to “variable cost per unit” category analysed in a short period of time. Because the change in total costs in the short

⁴ In economic theory, this kind of analysis is referred as a static analysis.

term can only be caused by a change in the total variable costs, marginal costs can be defined as the increase of total variable costs by unit (Zalega, 2008).

Thanks to the (indirect) introduction of the principle of calculating charges levied for access to railway infrastructure based on the category of direct variable costs, incurred as a result of operating the train services, that, in fact, constitute marginal costs, it was possible to predict the appearance of some substantive difficulties when correctly implementing the new principles of calculating access charges to railway infrastructure, in accordance with the Judgment of the Court of Justice, not only in Poland, but also in other Member States, since the judgment shall apply in the entire European Union.

Recast of the first railway package – Directive 2012/34

At the time of the proceedings regarding the violation of the rules of the first railway package were filed by the European Commission against 12 Member States, including Poland for irregularities in the calculation system of charges levied for access to railway infrastructure, intensive work on the so-called modification of the first railway package were taking place. On November 21, 2012, the European Parliament and the Council adopted Directive 2012/34 on establishing a single European railway area (Directive 2012/34, 2012). In Article 31(3) of the Directive, an amended provision that regards the cost category on which the charges for access to railway infrastructure should be based, was included as follows: "...the charges for the minimum access package and for access to infrastructure connecting service facilities shall be set at the cost that is directly incurred as a result of operating the train service." In comparison to the analogous provision of Directive 2001/14, the change involved only the obligatory inclusion of charges for "access to infrastructure connecting service facilities" in the calculation systems, while the category "cost directly incurred as a result of operating the train service" remained unchanged. In view of this, it can be concluded that the adoption of Directive 2012/34 no longer had any relevance for the Luxembourg trial against Poland. On the other hand, of great importance was the Commission's announcement to include in the Directive the rules for calculating costs that are directly incurred as a result of operating the train service, before 16 June 2015. This meant setting a deadline by which the European Commission undertook to define more precisely the uniformly system for calculation charges for access to railway infrastructure, which would bind all Member States.

Implementing regulation 2015/909

The new European Commission Regulation was issued on the basis of the legislative deputation included in Directive 2012/34 ("amendment" to the first railway package). In this legal act, the Commission should have precisely defined the concept of "costs that are incurred directly as a result of operating the train services". The regulation was adopted and is binding in its entirety, as well as it has been directly applicable since 1 August 2015 in all Member States (Commission, 2015). Moreover, the Commission noted in the preamble that the Court of Justice has handed down the judgment on the calculation of direct costs incurred in operating the train services and that the regulation takes that judgment into account (Commission, 2015).

However, the above-mentioned regulation disappoints with the adopted method for defining charges levied for access to railway infrastructure, which are the most important element in the applicable calculation system. Similarly to Directive 2012/34, the regulation states that, firstly, "direct cost" means cost that is directly incurred as a result of the operation of train services and, secondly, that "direct costs on a network-wide basis shall be calculated as the difference between, on the one hand, the costs for providing the services of the minimum access

package and for the access to the infrastructure connecting service facilities and, on the other hand, the non-eligible costs" (Commission, 2015). On the other hand, the non-eligible costs is a list, which includes the term "in particular", i.e. is non-exhaustive, of dozens of items ineligible for direct costs, including the item "fixed costs relating to the provision of a stretch of line which the infrastructure manager must bear even in the absence of train movement" (Commission, 2015). In this way, the quoted regulation regarding costs, which are incurred directly as a result of operating the train services and which are the foundation of the entire charge calculation system, does not provide a definite resolution, still leaving the Member States a large margin of their own interpretation possibilities, but also putting them at risk of possible litigation in the future.

It seems that the big paradox in the entire case described above is the fact that, on the one hand, the Court in its judgment against Poland questioned the so-called resultant determination of direct costs incurred as a result of the operation of train services (total costs of infrastructure manager minus the budget subsidy used to cover costs, other than direct costs) and did not even mention that such a fact occurred in Poland while examining the Commission's complaint. On the other hand, in 2015, the Commission introduced an implementing regulation, in which "direct costs incurred as a result of operation of the train services" are calculated using the output method (total costs of the railway infrastructure manager minus the non-eligible costs, i.e. costs to be covered and thus financed from budget subsidy). It can, of course, be claimed that the Polish system required the inclusion of the subsidy amount in this calculation, i.e., an element undoubtedly related to the transport policy, and that the system defined in Commission Implementing Regulation 2015/909 requires the inclusion of exhaustively listed cost items as costs to be covered by subsidies, i.e. it is potentially better, more precise, appropriate, and in line with EU law. This, however, does not change the fact that the system is resultant and was previously questioned by the Court.

Summary

The matter of determining the correct cost category that forms the basis for calculating charges levied for access to railway infrastructure has been for many years (since 1991) subject to controversies and debates in all European Union Member States. The provisions of subsequent EU directives 91/440, 2001/14, 2012/34, which referred to this issue, were too general and therefore imprecise. For several years, the European Commission has "promoted" the idea that charges for access to railway infrastructure should be calculated on the basis of the theoretical category of "marginal cost", although no provision of the applicable directive indicated such category. The Court of Justice of the European Union, in the proceedings against Poland, did not share the position of the European Commission in this matter. However, the Court introduced to the legal system the economic category of "fixed costs" incurred as a result of the operation of train services, which cannot be included in the charge calculation, and "other costs" incurred as a result of operation of the train services, which are to be the basis for charge calculations. Thus, the Court indirectly pointed to the category of "variable costs", incurred as a result of operating the train services, as a basis for calculation of charges levied for access to railway infrastructure. Nevertheless, this approach also does not seem appropriate, since the analysis presented in the article showed that the theoretical category of "marginal cost" is synonymous with the theoretical and practical category of "variable cost". The problem of the cost category, on which the calculation of charges levied for access to railway infrastructure is to be based in the European Union, has been pragmatically and partially solved by the European Commission that issued Implementing Regulation 2015/909 of 12 June 2015 on the modalities for the calculation of the cost that is directly incurred as a result of operating the train service, discussed in a general way in the article. However, this regulation regarding costs that

are incurred directly as a result of operating the train service, and which are the foundation of the entire charge calculation system, does not provide a definite resolution, still leaving the Member States a large margin of their own interpretation of these provisions, but also putting them at risk of possible dispute proceedings in the future.

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SMART SUPPLY CHAIN – CHALLENGES OF INFORMATION-DRIVEN MANAGEMENT

MARZENA FRANKOWSKA,¹ KATARZYNA NOWICKA²

¹ University of Szczecin, POLAND

e-mail: marzena.frankowska@wzieu.pl

² Warsaw School of Economics, POLAND

e-mail: katarzyna.nowicka@sgh.waw.pl

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ABSTRACT

Smart Supply Chain is the answer to challenges of the Fourth Industrial Revolution (Industry 4.0). It uses features, mechanisms and technologies essential to integrate the whole system, that is Smart Industry, in an end-to-end perspective, namely taking into account all links that cooperate as part of delivering values to customers. As part of a Smart Supply Chain, all its components, namely factories, people, machines, products and service design, manufacture and delivery systems cooperate in order to satisfy customers' needs as effectively and quickly as possible. The basis for building new generation supply chains is the possibility to link data and information from different sources. The aim of this article is to present the concept of the Smart Supply Chain in the context of challenges related to the management of information flow. Apart from the discussion of the concept itself and the meaning of information in the Smart Supply Chain, main supporting technologies have been presented. To reach the objectives set in the research, a review of subject literature has been made and the latest research results undertaken by Sapio Research on behalf of Zetes Corporate, concerning the assessment and challenges related to end-to-end supply chain information requirements and current operational reality, have been used.

Introduction

The global economy is entering the fourth era of industrial revolution, the functioning of which is based on Cyber-Physical Systems (CPS), integrating factories, products and customers by including them in Smart Supply Chains. The aim of this article is to present the concept of the Smart Supply Chain in the context of challenges related to the management of information flow. The new generation of supply chains more than hitherto appreciates

the role of modern technologies and full access to information on all aspects of functioning of a supply chain in order to increase efficiency and competitive advantage. Recent technological progress makes it possible to both generate and exchange data essential to manage a supply chain in an intelligent manner. Thus, the article seeks to answer the following research questions:

- What is the relevance of information in the functioning of the Smart Supply Chain?
- Which technologies support the development of the Smart Supply Chain?
- Which is the state of progress of implementation of the Smart Supply Chain, measured by visibility and the degree of utilization of information in the supply chain?

To reach the objectives set in the research, a review of subject literature has been made and the latest research results undertaken by Sapio Research on behalf of Zetes Corporate, concerning the assessment and challenges related to end-to-end supply chain information requirements and current operational reality, have been used.

The essence of the concept of the Smart Supply Chain

At present, various dimensions of the concept of the so-called Fourth Industrial Revolution are analyzed in the subject literature and economic realities. Its understanding goes beyond the subject of using advanced technologies in manufacturing processes. What is more, it is no longer limited to issues related to robotization and automation of a single manufacturing facility, but includes also an integration of Core Functions with supply chains as part of which design, manufacture and supply of intelligent products to consumers takes place. Therefore, the idea of Smart Industry is made up of four main components, namely Smart Factory cooperating within the framework of a Smart Supply Chain based on Smart Technologies in order to manufacture and supply Smart Products and Services (Frankowska, Nowicka, 2018). An important response to these conditions is the need to change an approach to developing the supply chain. Companies which have discerned the relevance of changes occurring in the economic environment more and more often migrate their operations, processes (planning, purchases, manufacturing, deliveries and returns) – and the megaprocess of supply chain management itself – to the virtual world. As a result, Smart Supply Chains are created, which are defined by Wu et al. as the new interconnected business system which extends from isolated, local, and single-company applications to supply chain wide systematic smart implementations (Wu, Yue, Jin, Yen, 2016). Thus, Smart Supply Chain is a system which ensures full interoperability and which uses the potential of technologies, namely IoT, Cloud Computing, 3D printing, Big Data and big data analytics, artificial intelligence, automation or robotization. Such an ecosystem of technologies and an appropriate use of data analytics makes it possible to take decisions in near real-time of events taking place in the physical world at various levels of the supply chain. This requires integration processes which consist of (Wang, Wan, Li, Zhang, 2016; PwC, 2016):

- a) vertical integration, which involves internal processes of a company, ranging from design and purchase to customer and after-sales services;
- b) horizontal integration, which takes into account collaboration with suppliers, customers and cooperators in the value chain.

- Smart Supply Chains have a set of characteristics which distinguish them. These include (Wu et al., 2016):
- a) instrumented: information in the next generation supply chain is overwhelmingly being machine-generated, for example, by sensors, RFID tags, meters, and many others;
 - b) interconnected: the entire supply chain, including business entities, and assets, IT systems, products, and other smart objects are all connected in a smart supply chain;
 - c) intelligent: smart supply chains make large-scale optimal decisions to optimize performance;
 - d) automated: smart supply chains must automate much of its process flows by using machines to replace other low-efficiency resources including labor;
 - e) integrated: supply chain process integration involves collaboration across supply chain stages, joint decision making, common systems, and information sharing; and
 - f) innovative: innovation is the development of new values through solutions that meet new requirements, inarticulate needs, or even existing needs in better ways.

Companies integrated as part of supply chains also discern the potential resulting from utilization of modern technologies in flows management. As a result, they migrate from classical models based on sequential transactions between particular links to solutions utilizing digital technologies in management of particular processes of the chain, or a network, of supplies. Progressing digitalization contributes to the development of Smart Supply Chains.

Generating and exchanging information in a Smart Supply Chain

One of the most important characteristics of Smart Supply Chain is being instrumented. The information plays crucial role in enabling supply chain competitiveness. Data is processed into the information on the basis of which decisions are made. Therefore the relevant data delivered in a real time to the right partner is the most important aspect of Smart Supply Chain development.

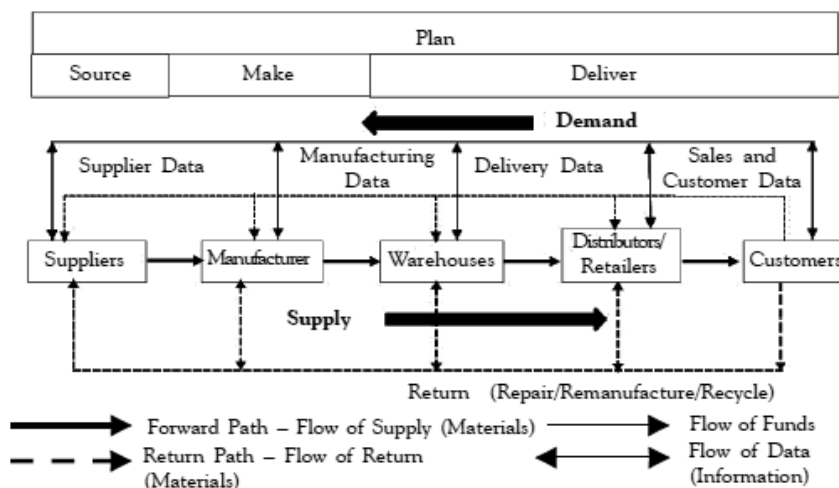


Figure 1. Information-driven Supply Chain

Source: Biswas, Sen (2016).

Information in the context of supply chain management includes i.e. customer information, sales information, market and competitor information, product and service level requirement, promotion/brand information, demand forecasting, inventory, capacity utilization, process planning and control information, skill inventory, human information, sourcing/vendor information, networking information, logistics, warehouse planning, pricing and fund flow/working capital information. All these information is preliminary initiated at customer end which flows through subsequent stages to the supplier end. The data being generated at subsequent stages are classified into four categories – supplier data, manufacturing data, delivery data and sales and customer data. The structure of information-driven supply chain is shown on Figure 1 (Biswas, Sen, 2016).

All these data creates new competitive weapon that role can never be over emphasized in the context of supply chain. However it also creates a great amount of data that should be stored, processed and distributed between supply chain partners. It is important due to the fact, that access to the data and sharing information between partners in Smart Supply Chain is a main success factor for gaining on competitiveness. It should be also underlined that it can be based on the data generated by any object in the supply chain. The adoption of advanced information systems in supply chains is crucial for sharing and analysing large amounts of data among multiple actors (Urciuoli, Hintsa, 2016). To make it possible the adequate technologies should be revised and implemented within supply chain partners.

The evolution of technologies conditioning the development of the Smart Supply Chain

As has already been mentioned, sole use of the Internet or robotization of manufacturing processes is at present not enough to maximize the benefits resulting from the implementation of modern technologies. In the Smart Supply Chain, which is information-driven, there is a need to combine solutions and utilize of technologies in a wider spectrum. In the subject literature there is no unanimity concerning which technologies are main enabling technologies supporting intelligent industry and intelligent supply chains. However, it is appropriate to assume that the basis for any development is the development of the Internet and the capability to process data in the cloud, including Big Data Analytics. The Internet of Things (IoT), often extended to the concept of the Internet of Everything (IoE), plays a particularly significant role in the issues of access to information on an unprecedented scale. IoT is a network of people, processes, data, devices, applications and things connected to the Internet. Thanks to these connections, material and social elements connected to each other create IoT network, collecting and exchanging data and interacting with each other (Lee, Lee, 2015). CPS are created and they include networks, software and the capacity to process data. Cloud computing, on the other hand, is both a set of information and communication technologies and a data processing model in the form of services, the development of which has redefined the manner in which IT solutions are provided by suppliers and purchased, used and financed by recipients (Dziembek, 2016). In literature, the terms processing in the cloud and Big Data are combined more than once. This results from the fact that cloud computing provides access to unlimited resources on demand, which is related to the necessity to process an increased amount of data (Lee, Lee, 2015). Big data operates on the basis of a current analysis of increasing very big collection of data in real time, thanks to which analyses are always up-to-date. Technological process is also related to the development of robotics. In the subject literature there are numerous definitions of the term „robot“, which is connected to considerable progress in this field. Taking into account the manner of programming and the possibility of communication of a robot with its environment, four generations of robots can be distinguished: taught robots, learning robots, intelligent robots and integral robots.

An important direction of development which has been taken by all leading robot manufacturers is the capacity of a robot to cooperate with a human being. Collaborative robots, also called co-bots, are being developed and they change the manner in which the role of robotics is perceived in industry. In the main traditional approach the aim was to keep people away from dangers in the course of a production process. At present, the requirements are much more demanding, and they are related to the precision and variety of conducted work. That is why robots are used in technological operations, including installation, packaging, and palletization as well as in transport. It is also worth drawing attention to future technologies which, along with technological progress, will be used more commonly in the Smart Supply Chain. These include 3D printing directly linked to Additive Manufacturing (AM). AM includes also rapid prototyping techniques, which are employed as a low-volume manufacture and manufacture of single products, spare parts and untypical elements (Cichoń, Brykalski, 2017). Reference should also be made to Augmented Reality (AR). This is an area of computer science which deals with connecting the real world with visual elements, generated by means of computer graphics. Even though AR is not yet used on a wider scale, the following of its applications are possible for now: positioning and relocation of heavy objects, air, road and water traffic control, customs and border control, as well as applications in warehouse management.

The range of application of described technologies in the Smart Supply Chain varies, but their common feature is the capability to use information as a basis of conducted actions and processes.

Supply Chain Visibility evaluation

The complexity of supply chains compounded by trust issues in many industry traditionally impede the flow of information between trading partners. Therefore companies are facing a number of challenges to remain competitive. According to research undertaken by Sapio Research on behalf of Zetes (2017) during August 2017, across Europe and South Africa (respondents were senior executives within a range of manufacturing sectors) manufacturers need to improve speed, accuracy and agility in the end-to-end supply chain. There is a must for more visibility within the supply chain flows.

89% of respondents perceive a single view of the supply chain as a key priority, yet 70% still have no end-to-end visibility. It is due to the fact that information is not harmonised – only a third of manufacturers find it easy to aggregate information across supply chain. As much as 67% are still struggling to share key information between own departments. At the same time 80% of respondents say that it is of significant importance to have visibility of risks affecting supply (this has been achieved by just one quarter of them). Additionally, 75% want visibility of all events affecting the inbound flow of goods from suppliers (this has been achieved by only 29%). Constraints in achieving an aggregated view are the following:

- poor quality or incomplete information from suppliers (70%),
- non-collection of key data (60%),
- securing information from non-integrated systems (60%),
- incomplete or poor information from customers (60%).

Many companies still use outdated methods of cooperation an information sharing. 60% of them still use email to secure information from different stages of the supply chain, 37% EDI, 36% telephone and 21% fax. While the use of the IoT – by 28% – demonstrates a growing trend towards digitisation, it seems to be insufficient to be able to gain competition. As much as 68% of organisations cannot provide decision makers with access to the information required to make informed business decisions. To solve the problem of lack of visibility in the supply

chains manufacturers are considering real-time data connectivity (38%), supplier collaboration (38%), supplier performance monitoring (35%) and predictive alerts to mitigate disruption (34%). Thus the key priorities for real-time visibility of information are transport from suppliers (76%), stock levels held by clients (73%), demand forecasts from clients (71%) and manufacturing volumes across plants within the organisation (71%).

It should be also underlined that essential understanding of Digital Supply Chain is very low (29% of respondents understand this issue) and just 15% are implementing this solution and expect them to become the norm for the business in the next five years.

Conclusions

Nowadays the digital technology solutions might serve as an almost perfect enabler for solving complexity and visibility challenges in supply chains. Additionally sensors, computing power and connectivity are becoming cheaper, smaller and more powerful. Therefore many companies leverage these advanced technologies to remotely access machine data to schedule maintenance operations, optimize the daily performance of assets and help customers who experience problems with their products (Hoberg, Herdmann, 2018). With IoT technology, transparency and visibility across the entire supply chain is now possible. IoT is able to real-timely monitor the process of a supply chain execution and also to further improve the efficiency and effectiveness of supply chain. This also enables manufacturers to change their business models and types of interactions with other partners in the supply chain. Smart Supply Chains are the next-generation supply chains that are based on sharing information and digital technology. They are instrumented, interconnected, intelligent, automated, integrated and innovative. Based on technology they enable end-to-end visibility in the supply chain.

However one of the recent study shows that a broad range of challenges that manufacturing companies facing in terms of improving visibility exist. Smart Supply Chain is still the future project for most of the companies. At the same time, unquestionably, this is the most important direction for further development.

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ASSESSMENT OF THE QUALITY OF SERVICE IN THE CATERING INDUSTRY AS AN IMPORTANT DETERMINANT IN ESCALATING THE LEVEL OF CONSUMER CONFIDENCE

AGNIESZKA GÓRKA-CHOWANIEC

Academy of Physical Education, Department of Sport and Tourism Management, POLAND
e-mail: agnieszkagorka@interia.eu

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KEYWORDS quality in services, catering industry, consumer confidence

ABSTRACT Internationalization of modern enterprises in service industry, turbulent environment in which they operate and constant expansion of the competition in the catering industry force enterprises to seek more innovative ways to remain on the market. Quality is the key factor in the development strategy of entities in the catering industry, the objective of which is to achieve long-term competitive advantage, both on domestic and foreign catering market. Enterprises, applying consumer-oriented approach as the key factor in their development strategy, seek to shape an ideal level of services provided which will help to distinguish their services from among similar competitive services. The aim of such actions is, first of all, to satisfy the customer providing the appropriate level of service. The aim of this study is to try to identify the impact of service quality on the level of consumer confidence in the catering industry and to identify factors determining the essence of the quality of catering services, in the opinion of respondents. The basis of the analysis was results of the author's surveys carried out on a sample of 300 consumers from hotel restaurants (four-star hotels) located in the area of Silesian region.

*Quality is our best assurance of customer allegiance, our strongest defense against foreign competition,
and the only path to sustained growth and earnings*

John Welch – CEO of General Electric

Introduction

Dynamic changes observed in the recent years on the Polish market of catering services, first of all analyzing its supply side, stem from changes in attitudes and customer's purchasing intentions in the food industry. The quality of food consumed away from home or nutrition habits form an important determinant affecting the consumer's behaviour within the analyzed field. Currently, the consumer chooses food of appropriate quality which is often

assessed on the basis of three features: healthiness (safety, nutritional value, calorific value and dietetic value), sensory value (visual appearance, smell, consistency, structure and taste) and availability (durability and recognition of the kind); (Cieślak, Stachura, Topolska, 2010, p. 556; Grębowiec, 2010; Kmiołek, 2010; Kowalska, 2010; Markovic, Raspor, Šegaric, 2010, p. 181). Poles use catering services more often and spent more money on it.¹ According to data provided by Central Statistical Office and contained in the „Small Statistical Yearbook of Poland 2016”, in 2016 the number of food establishments rose by 1481, as compared to the previous year.² Restaurant facilities in hotel industry which, currently, operate in increasing competition environment more frequently seek innovative ways to remain on the market. These hotels which provide, in their offer, complex catering business may use this aspect of their market operation to improve the general quality of provided services, in the opinion of their customers, in order to increase their competitive position on the industry market. One of the manifestations of such approach is the adoption of customer-based orientation by the enterprise through the satisfaction which is the effect of proper satisfied needs. One of the ways to achieve this state is to focus the attention of the hotel on the expansion of pro-quality activities, including catering service, the effect of which is the general improvement of the quality of provided services. The achievement, by a given entity, of a proper (satisfactory to the customer) quality of provided services requires proper identification of factors which forms the essence of identified quality of catering services in the opinion of customers. Proper identification of quality determinants, in the opinion of hotel’s guests, may form a basis for the entity to determine an integrated quality management system of provided services, at the same time, raising the chance to acquire a group of steady and loyal customers. Bearing in mind the importance of quality of services in the catering industry as an important determinant in escalating the level of consumer confidence, the author, in the present study, attempted to identify the impact of quality of service on the level of consumer confidence and identify a group of factors which, first of all, determine the essence of quality of catering services in the opinion of respondents.

Catering service in light of source literature

Starting deliberations on the essence of services in the catering industry, it seems appropriate to present the classic definition of services. Seen from this angle, the service is perceived as activities or advantage which may be offered by one of the parties to another, intangible in nature and not leading to the acquisition of any form of ownership (Kotler, Armstrong, Saunders, Wong, 2002, p. 41). On the other hand, K. Rogoziński defines the service through the relation system and defines it in the following manner: “Service is understood as the undertaken order, intentional provision of work and/or benefits. It enriches personal characteristics or usability volume of goods which are possessed by the recipient” (Rogoziński, 2000, p. 36). H. Rudecki identifies catering service as a set of particular activities, including in particular manufacturing activities, the essence of which is to “transform” food products for consumption and commercial purposes which contain the sale of food products, highlighting the need to provide the condition to consume them on the site (1974). Other authors present similar approach with regard to the essence of catering services and define catering service as a set of activities, the aim of which is to achieve a certain added value in the opinion of the customer in the form of, e.g. set of dishes, proper conditions for their

¹ *Catering market in Poland, Report 2016*. Retrieved from: horecanet.pl (26.06.2017).

² *Concise Statistical Yearbook of Poland 2016*. Warszawa: GUS. Retrieved from: stat.gov.pl (16.06.2017).

consumption or provision of certain entertainments and additional services (Szajna, Ławniczak, Ziąja, 2015, p. 57). Therefore, catering services constitute for the customer certain kind of benefits in several key fields:

- physical (helps to satisfy hunger and thirst),
- economic (helps to purchase, within a set budget, dishes and beverages of proper quality and with the possibility to save financial resources),
- psychological (high quality of services is observed as an important determinant raising self-assessment and social status of consumers),
- social (when a customer uses catering service it is possible for him to strengthen or initiate new social contacts).

Górska-Warsewicz, Mikulska and Sawicka note that the provision of catering services takes place under concrete and specific conditions, underlining the key importance of the quality level of internal and external infrastructure of premises, where the services are provided (2014). According to the presented division of catering industry in one of literature studies, catering service market can be divided into: individual catering services, systemic catering services, special catering services market (Grzesińska, 2012, p. 11).

A. Kmiołek presents the catering service on the basis of activities carried out to satisfy certain needs, mainly nutrition by producing and serving ready-made dishes (2013). A basis in the provision of services in the catering industry is production-service operation which consists of operating mass caterers (restaurants, cafes) (Konarzewska, 2016). Catering industry constituting business of open and production-service nature covers with its competencies many catering entities providing broadly understood services of nutrition character (Duda, Krzywda, 2013, p. 87). The essence of catering services is determined by the set of activities, the basis of which is to produce dishes and beverages, sell these products and other commercial goods combined with consumer service, expanded with cultural, entertainment or recreational service package (Milewska, Prączko, Stasiak, 2010, p. 350). Definition presented above clearly signals the complex nature of addressed issues. J. Duda and S. Krzywda, when defining the essence of catering service, divide it into basic services (nutrition), additional services, e.g. within cultural-entertainment field satisfying social needs and complementary services (e.g. catering, transport and informative) the offer of which is varied and adjusted to the recipient's needs (2014). W. Reich, the notion of services in the catering industry can be referred to the activities which consist of offering dishes and beverages to the customer, including provision of entertainment services (Sala, 2004, p. 49). The notion of service is very often understood as all kinds of economic activity of intangible character which are determined by the high level of interactivity between the recipient and service provider. Taking into account the above mentioned considerations, catering service may be defined by production-service activities of entities in order to satisfy disclosed consumer needs, the basis of which is interdisciplinary and specific culinary knowledge combined with the art of consumer service.

Identification of quality in catering industry services

Considering the quality interpretation of American Control Association we may conclude that the quality is the set of certain characteristics of product/service which determine their abilities to satisfy specific recipients' needs (Horbaczewski, 2006). W.B. Martin proposes similar definition referring to the quality of services, defining quality as the ability of a given enterprise to satisfy needs and expectations of, both internal and external customers, including technical and functional elements (2006). In turn, C. Armistead and G. Clark distinguished the factors determining the quality of services on hard and soft. Among the hard authors they distinguished: time, physical

factors, flexibility of the service. Among the soft ones they distinguished: style, security, “controllability” (influence of recipients on the process of creating a service), (Armistead, Clark, 1994). According to marketing philosophy, service is characterized by the certain level of quality if its execution meets or goes beyond the expectations of its customers (Czubała, Jonas, Smoleń, Wiktor, 2012, p. 142). Source literature differentiates the level of consumers' expectations regarding services, defining them with the use of four phases (Illy et al., 1995; Czubała et al., 2012):

- ideal service – the quality of service is higher than the consumers' expectations, is a basis to create values and satisfy customers (Toruński, 2013, p. 80),
- desired service – standard of service which is expected by the consumer,
- satisfactory service (acceptable) – service which should be provided for the agreed price,
- minimal service – service which should present the lowest level of service, acceptable by the customer.

In the process of service provision, there is always a comparison of expectations with real experience of the consumer, who may also assess the service as non-acceptable level of quality which may significantly decrease his satisfaction and lead to failure to use the service in the future.

Quality in the aspect of operation of service enterprises is a strategic notion which determines the level of satisfaction and consumer confidence. While analyzing the notion of quality we need to take into account several perspectives. The first area determines the category of quality in the opinion of consumers, as a recipient of catering service, and quality according to managers who create such service. In case of the consumer, quality is his subjective evaluation, including the expectations, hierarchy of values or benefits providing by the specific service. In the opinion of managers, quality of services is a reference of specific characteristics of offered services to the specific pattern which was adopted by the enterprise as a reference point in defined quality standards.

The second perspective allows us to divide quality into technical quality focusing on the operational processes and may be enhanced by the application of modern technological solutions; and functional quality focusing on the relations between the recipient and the service provider. In the operation of service enterprises, including catering industry, we may observe that these enterprises, focusing on the quality in practice, easier acquire and maintain market advantage and acquire growing group of steady and loyal customers, acquiring long-term market success (Stoma, 2012, p. 9). Parasuraman and others identify factors affecting the level of quality of service by their categorization with regard to ten criteria (1985):

- material criterion (external infrastructure of the entity, premises equipment, where services are provided and the appearance and presentation of employees (Di Lucchio, 2012, pp. 252–257). According to Mruk and Sznajder, an important element of innovative solution in modern catering industry is shaping the environment and the place of dishes consumption which is understood as the so called emotional branding (2008, p. 46),
- reliability criterion (accuracy of service provision),
- sensitivity criterion (full understanding of the customer's needs, provision of assistance, provision of advice especially for those guests, who are undecided),
- competence criterion (level of personnel's expertise, knowledge resources and skills which are necessary to provide services),
- credibility criterion (shaping of quality should be constant process which build the identity of the brand, and should be understood through the reliability),

- safety criterion (adjustment to standards shaping health quality of produced food, including among others, GHP, GMP, GLP and HACCP systems as well as ISO and TQM standards),
- availability criterion (ease of service purchase, possibility to acquire detailed information on the process of service provision and contact with the service provider),
- communication criterion (efficient flow of information, mutual and non-disturbed exchange of remarks and assumptions),
- understanding of needs and expectations of both, current and potential consumers,
- the ideal value criterion (Mattsson, 1992),
- the quality criteria for internal services (Frost, Kumar, 2000).

To sum up, currently the quality of services in catering industry is perceived as one of the major elements in competing strategy of modern enterprises. Thanks to the possibility of identification criteria which determine customers to select the service and know the ways of assessment the quality of services, entities are able to adjust their offer to the needs and expectation of loyal and steady customers as well as future recipients.

Empirical material and methodology

In order to perform the main objective of the present study which is the identification of the impact of catering service quality on the level of customers confidence and identification of factors determining the quality of catering services, the author carried out the author's survey in hotel restaurants, four-star hotels located in the area of Silesian region. From among 35 four-star hotels located in the surveyed area, the author randomly selected 20 entities in which surveys were carried out (figures for 15.03.2017; source: bip.slaskie.pl). The present study applies survey methodology with the use of direct interview questionnaire. Surveys were carried out anonymously in the period from March to May 2017 on the sample composed of 300 respondents. As a result of surveys, the author acquired 297 completely filled questionnaires and such amount was subjected to final verification in order to acquire credible results. The questionnaire which was prepared for the purpose of the present study was composed of three parts. The first part focuses on the scope of identified issues and explains their purpose. The most important part of the survey, from the point of view of the purpose of the survey, is contained in the second part and covered 10 questions concerning the quality of catering services provided in hotels and their impact on the level of confidence and loyalty of customers. The following results, due to the limit content of the text, contain only most important survey results which will help to draw synthetic conclusions with regard to assumed purpose of the present study. Third part of the questionnaire helped to identify demographic features of the surveyed respondents in the field of: sex, age, professional status and purpose of the trip).

According to the acquired data from the analysis of demographic features of respondents, the survey covered 35% of women and 65% of men. From among respondents, the most numerous group (56%) were persons aged 32–45, while respondents aged 46–60 constituted 19%. The next group (13%) constituted persons above 60 years. The least numerous group were persons aged 18–30 identifying 12% participation in the survey. Analyzing professional status of the surveyed population, it can be stated that the most numerous group were persons in active professional life – 77% of respondents. Retirees/pensioners constitute 19% of surveyed, while persons with the status of trainee or student constituted 4% of respondents. No persons having unemployed status participated in the survey (0%). Analyzing the purpose of trip with regard to the analyzed area, more than three quarter (77%) of

surveyed persons declared professional purpose of the trip (professional), while 23% of respondents visited hotel due to private purpose.

Survey results

From among surveyed respondents, 67% indicated that when choosing the hotel as a place of accommodation draw attention to the level of provided catering services in the hotel restaurants. For the remaining 33% of surveyed persons the factor of the level of provided catering services is not important during the process of booking. The analysis of answers on next questions indicated that the most important criterion while choosing the hotel, analyzing the aspect of provided catering services, is the quality of provided dishes, such response was provided by more than one third of respondents (33%), the next important factor, in the opinion of the respondents, was the level of service (21%), own experience of customers (knowledge of the subject) who visited the restaurant earlier, used services and choose another purchase (19%) as well as recommendation of the entity by friends (16%). The least important factor, in the opinion of surveyed persons is price; such answer was provided by 11% of respondents. While analyzing factors which affect the level of catering services in hotels, own survey results indicate that varied menus, appearance of provided dishes and cleanliness of the facility constitute a criterion of quality of catering services, in the opinion of surveyed persons (26%, 19% and 13%, respectively). Below, the author presents detail set of acquired answers (Figure 1).

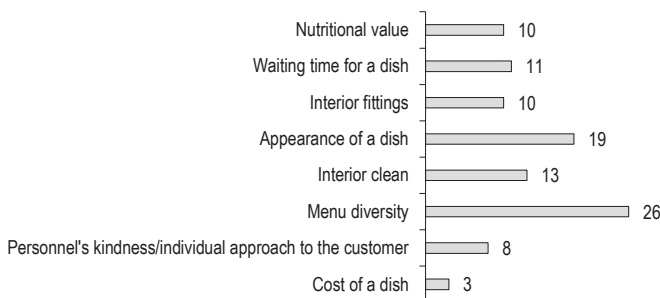


Figure 1. Factors determining the quality of catering services in hotel facilities³

Source: own study on the basis of carried our surveys.

While analyzing the factor determining re-selection of hotels restaurant as a place of catering service more than half of the respondents indicated the quality of provided dishes (51%). Taking into account the hierarchy of answers, the next place is the level of customer service (22% of the respondents), aesthetic and appearance of a dish (12%) and interior design (9%). The least important factor taking into account during re-selection of hotel restaurant in the opinion of the respondents is the price, such answer was provided by only 6% of respondents which way stem from the fact that surveys were carried out in four-star facilities which are visited by customers having more than average social status. As it is shown by results, the main factor which may raise dissatisfaction in

³ In the question concerning factors which determine the quality of catering services in hotels facilities, the respondents were asked to identify max. 3 factors which, according to them, are most important from the point of view of the examined issue.

the opinion of the respondents during the use of catering services and result in the lack of re-visit is mainly too long time of waiting for the ordered dish, almost half of respondents provided such answer (43%), failure to meet by the dish the description in the menu (18%) and unsatisfactory quality of provided dishes (15%). Below graph presents detail set of answers acquired by the author (Figure 2).

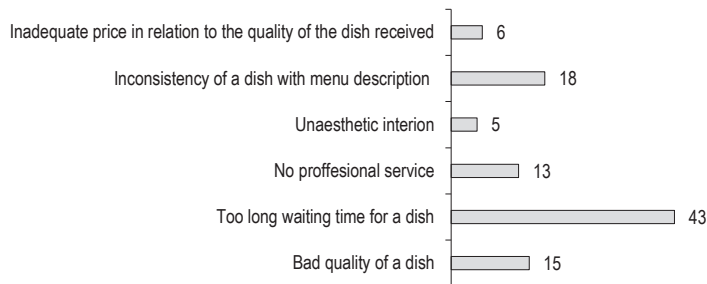


Figure 2. Factors escalating the level of dissatisfaction of customers during the use of catering services

Source: own study on the basis of carried our surveys.

While analyzing respondents' answers on the question: whether low level of the quality of provided catering services in hotel entities may affect on the number of persons who re-visit a given hotel and use accommodation services, we can observe that the majority of respondents provided the answer definitely yes (49%), 33% of respondents state that the low level of provided catering services may determine decision concerning the use of accommodation services, while only one fifth of the respondents (18%) state that the quality of provided catering services in the hotel does not affect the use of accommodation service. No respondents indicated that the quality of catering service provided in hotel entities definitely affect the consumer's decision concerning the use of accommodation service in a given facility (0%).

Conclusions

Results of carried out surveys clearly state that, in the opinion of the respondents, the main criterion concerning selection of the hotel facility is definitely the level of provided catering services in hotel restaurant (67% of the respondents). In the opinion of the respondents, the main determinant on the level of provided catering services is the quality of provided dishes (33% of respondents). The main factor determining the quality of catering services is varied menu, appearance of a dish and cleanliness. The majority of respondents (in total 88% of respondents) indicated that low level of provided catering services in the hotel may affect the number of guests who want to use the accommodation services one again. To sum up, we may state that the organization of the production process, the way of its provision, smell, colour or standard of premise interior strongly affect the mood of the consumer, affect their behaviour, the level of loyalty or determine the use of services in the future (Kosicka-Gębska, Tul-Krzyszczuk, Gębski, 2015, p. 41).

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INSTITUTIONAL SUPPORT FOR LOCAL COMMUNITIES WITHIN WASTE MANAGEMENT POLICIES, BASED ON THE EXAMPLE OF THE NFEP&WM PROGRAMME

DAGMARA HAJDYS,¹ MAGDALENA KOGUT-JAWORSKA²

¹ Uniwersytet Łódzki, POLAND
e-mail: dagmara.hajdys@uni.lodz.pl
² Uniwersytet Szczeciński, POLSKA
e-mail: magdalena.kogut@wzieu.pl

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ABSTRACT

According to the guidelines for ecological policies of the state regarding collection, storage, utilization and disposal of waste, their rational management should ensure satisfactory condition of the natural environment. The absolute priority for waste management policy is given to minimalisation of negative influence of waste on the environment. Actions taken recently by local authorities should improve the conditions for waste management, as well as they are aimed at achieving the standards required by the Polish and European Union Laws. In this context, the goal of this paper is to identify some aspects connected with financing of waste management by Polish local communities, and to indicate methods of institutional support, mainly coming from the National Fund for Environmental Protection and Water Management (NFEP&WM). The paper present tasks for local communities in waste management policies and the role of NFEP&WM in the system of institutional support. The paper also describes the main financial instruments for the local communities within the framework of waste management created by the NFEP&WM.

The authority of local communities within municipal waste management

According to the existing parliamentary act (Act of 2012), waste management includes: collection, transport, and processing of waste, together with the supervision over these actions, as well as the proceedings concerning places of disposal, or actions concerning sale of waste (Act of 2012). The notion of waste management can be understood as ventures, actions or procedures which are connected with limiting of waste production, its utilization

and disposal, as well as with its reusing or recycling (Famielec, 2017). The notion comprises planning, implementation and control of the actions performed. In particular, the aspects of waste management include (Famielec, 2017):

- legal regulations, guidelines, norms and standards for waste generation and utilization,
- plans for waste management at the local, regional, national and international level,
- reporting which refers to generating and utilization of waste, i. a.: permits for certain amount of the waste generated, its composition and types,
- issues connected with defining properties of various kinds of waste, its composition, toxicity etc., and also with the estimates for future amount and types of waste,
- collection and transport of waste,
- processing of waste, methods and technologies of recycling, processing for energy production or other forms of utilization,
- issues related to waste disposal through its dumping in landfills, technologies of waste storage, problems of environment management and other emerging issues.

The scope of responsibility of state agencies for municipal waste management is precisely explained in the acts of law. In accordance with the current regulations, territorial government units and local communities have been burdened with obligations to introduce and implement a waste management system. The new legal order and crucial accommodative measures, which have taken place since 2013, enlarge the scope of competence and authority of local communities within measures aimed at organizing and supervising of waste management, particularly at the selective collection and processing of waste. The legal changes were introduced by the revised act on cleanness and tidiness in local communities, which together with a new law on waste (management which contains more general regulations), is a basic legal act which specifies the issues in question (compare Table 1)

Table 1. Legal and organizational regulations at the national, regional and local levels having predominant influence on the municipal waste management system

Regulation	Specifics	Description
1	2	3
Legal acts and regulations from state authorities	Act of Parliament, in particular: The Act on Cleanness and Tidiness in local communities – consolidated act. 13/09/1996, Journal of Laws of the Republic of Poland No 132, item. 622, with later changes	Sets conditions for municipal waste collection from real estate owners and for utilization of the waste. It also regulates granting licenses for subjects offering services regulated by the Act
	Act of Parliament from 14th December 2012 – consolidated act. Journal of Laws of the Republic of Poland 2013, item 21 with later changes	Determines measures which serve environment protection, including their influence on human health and living conditions. The measures are expected to diminish a negative impact resulting from waste production and its management, and to scale down general implications of exploitation of resources, also aiming at improved effectiveness of their utilisation
National framework	National plan for waste management 2014–2023	Sets goals and tasks for waste management policies for 2011–2014, with additional perspective over 2015–2022. The document comprises both, a programme preventing waste production and a strategy to reduce storage of biodegradable waste
Regional framework	Regional plans for waste management	Determine a partition of geographical regions into regions outlined for municipal waste management, also selecting local communities for certain activities. The plans also indicate regional installations for municipal waste processing in particular regions and installations selected for substitutive servicing of those regions

1	2	3
Act of law made by local authorities	In particular, resolutions concerning the following matters: <ul style="list-style-type: none"> – collection of municipal waste from real estate owners, – participation of the local community area into sectors for which the waste is collected, – regulations for maintenance of cleanness and tidiness in the local community, – specific methods and scope of services regarding waste collection, – choice of the method for establishing fees for waste management (including fees for waste containers), – times, frequency and methods of payment for municipal waste management 	

Source: own material.

Self-governing communities are responsible for the condition of the natural environment and maintenance of cleanness and order in their territories, which leads to better quality of life of the local community. Particular tasks for the communities in this respect have been clarified in the regulations which state that all inhabitants have to be included into the organized system of municipal waste collection. The local communities are also obliged to coordinate the system of selective collection of the waste. The responsibilities of local communities in the local policies, divided into main organizational stages, have been presented in the table below (Table 2.).

Table 2. Tasks for the local community within waste management policies

Organisation and planning	<ul style="list-style-type: none"> – Organisation of a waste management system by all inhabitants of the community. – Analysis of the present state of waste management, needs of inhabitants in this respect, amount of waste created, condition of the infrastructure, cost of maintenance of the system etc. – Preparation and approval (by the local community council) of regulations for maintenance of cleanness and order in the territory
Selective collection of municipal waste	<ul style="list-style-type: none"> – Offering the inhabitants possibilities of selective household waste collection, comprising, the following types of waste: paper, metal, plastics, glass, multi-material packages and biodegradable waste. – Establishment of a stationary collection point for selective collection (a "PSZOK") for the remaining household waste, such as: past the expiration date medicine, flat batteries, end-of-life electric appliances, worn tires, pieces of furniture or other big dimension objects, or any other described by the law
Collection of municipal waste	<ul style="list-style-type: none"> – Choice of a contractor for collection or utilization, of municipal waste from property owners
Fees for municipal waste management	<ul style="list-style-type: none"> – Establishing and legislating methods of charging and rates of fees. The fees for waste management bring income for the local community and can be spent only on covering the cost of waste management system
Regional installations for municipal waste processing	<ul style="list-style-type: none"> – Construction, maintenance and upkeep of own (or shared with other communities) installations for municipal waste processing (the "RIPOK"), as long as such obligations result from the regional plan for waste management
Tenders	<ul style="list-style-type: none"> – Public tender has to be organised for municipal waste collection, or collection combined with proper management and utilization
Declarations registries and record keeping	<ul style="list-style-type: none"> – Establishing a declaration form template and conditions for submission of declarations concerning rates of fees for municipal waste management. – Running a registry of activities subjected to municipal waste collection rules. The registry should be written into a digital database. – Running various registers, among other, a register of contracts signed for municipal waste collection from real estate owners
Supervision and financial reporting	<ul style="list-style-type: none"> – Supervision of municipal waste management, including implementation of tasks ordered to subjects which collect municipal waste from the households. – Analysis of the state of municipal waste management has to be made basing on existing reports and other accessible data which influence the cost of the municipal waste management system
Information and education	<ul style="list-style-type: none"> – Information concerning methods and rules of dealing with household waste has to be made available for the inhabitants

Source: Stachowicz (2016).

The authority to take actions is an important element of presumption of ownership of the local community organs. This concerns all public issues of the local character which have not been reserved on behalf of other subjects. In this context, it is a crucial obligation for the local community to organize an efficient system of dealing with municipal waste. However, the necessary scheme of such importance requires considerable organizational effort supported by well-organised financing.

Institutional support for financing of investment activity within municipal waste management

The authority to act and execute given to local communities within municipal waste management and the resulting responsibilities regarding collection and utilization of the waste require an array of actions (including investment) which ensure high efficiency of the system dealing with waste management. Investment activity in this area mainly comes down to contracting, maintenance and upkeep of own, or shared with other communities, regional installations for municipal waste processing (the RIPOK). Investment activity conducted this way, has to limit investment opportunities in some ventures regarded as less effective economically and technologically (Ząbek, 2013; Zielińska, 2017).

It needs to be stressed that institutional conditions for municipal waste management include central and local government agencies and institutions, as well as legal acts, such as (Famielec, 2017):

- local community,
- local community council,
- sanitary inspector for the district,
- regional sanitary inspector,
- real estate owner,
- the subject (administrative or business entity) which collects waste,
- legal acts and regulations concerning: waste management, natural environment protection, taxes and fees, i.a.: those referring to production and storage processes,
- acts on the local community,
- anti-trust law,
- licences for various services and conditions for granting such licences (for entrepreneurs). Entities of the local community which conduct activities on their territory do not need to have a licence, but they must meet certain requirements and standards (e.g.: the European Union Standards).

The necessity to implement certain actions concerning waste management requires not only legal regulations, but possibilities of effective financing, as well. Investors undertaking investment activity connected with waste management, which are most often local and district self-governments or municipal co-partnerships, have a wide array of possibilities to obtain financial support. Application of some of them has a compensatory character, but the use of other ones can have stimulative features. Instruments of institutional support include financial means (subsidies) in the following forms:

- subsidies and regional funds for co-financing pro-ecological ventures,
- preferential rules of crediting ventures connected with natural environment protection,
- income tax reductions or exemptions at realization of pro-ecological investment.

The basic links of the system – based on the principle that income from fees and fines related to natural environment exploiting should be committed to its protection – are the national and the sixteen regional environmental

protection funds which offer broad financial support in the forms of grants, loans redemption and amortization of loans or interest repayment, as well as municipal bond issue and partial repayment of interest on such bonds.

Activity of such institutions supports, motivates and dynamises realization of pre-ecological ventures by local self-governments. Environment protection funds (NFEP&WM and RFEP&WM) set priorities for the beneficiaries of the financial support. In particular, the regional funds estimate the amount of support analysing the level of commitment and ways of cooperation with self-governments. Financial aid is most often channelled towards realization of pro-ecological investment of particular importance for local and regional development. The analysis of the fund performance so far, indicates that around a half of the means being at their disposal has been streamlined toward water quality protection or improvement of water resources, which resulted in considerable enhancement of water resources and gradual improvement of municipal infrastructure, mainly water and sewage pipes in local communities. Currently, a meaningful stream of financial means is transferred for realization of tasks connected with construction of waste – sorting plants and stations, establishing systems of waste retention and separate waste collection, modernization of waste storage places and land fills in connection with improved segregation of waste material, as well as closing down unnecessary landfills followed by recultivation of devastated areas.

It must be stressed that availability of the European Union funds is a positive factor creating better financing opportunities for waste management policies at the both, national and regional level. The financial aid comes from national and regional operational programmes.

Financial instruments of The National Fund for Environmental Protection and Water Management for local communities within the national waste management programme

The National Fund for Environmental Protection and Water Management (NFEP&WM) has launched a priority programme Rational Waste Management within the actions of the 2.2 Operational Programme for Infrastructure and Environmental 2014–2020 (the POIŚ). Its aim is to rationalize waste management through (NFEP&WM, 2018):

- prevention of waste appearance,
- establishment and maintenance of widespread systems of selective waste collection,
- creation and maintenance of a nationwide, integrated waste management installations,
- diminishing of waste amount being illegally displaced between countries,
- intensification of collection and legal dismantling of end-of-life vehicles,
- upgrading of ecological awareness in the society.

The programme consist of five following parts:

- Part 1 – Prevention of waste creation and selective waste collection.
- Part 2 – Waste management installations.
- Part 3 – Modernisation of vehicle dismantling stations.
- Part 4 – Financial support for collecting and dismantling of end-of-life vehicles.
- Part 5 – International relocation of waste.

The program is aimed at territorial self-government units and their associations, at entrepreneurs, as well as at organs of public administration. Applications from them are continuously received and processed. The total amount for the realization of the programme is 1,771,191,000 PLN. The co-financing can take the non-repayable form of a grant, with the total of 387,417,000 PLN or a repayable form of a loan with the total of 1,383,774,000 PLN.

The forms of co-financing and the beneficiaries of particular parts of the programme are shown in Table 3.

Table 3. Forms of co-financing and beneficiaries of the Rational Waste Management programme

Part and name of the programme	Form of-financing	Beneficiary of the programme
1. Selective collection and prevention of waste	Grant Loan	Territorial self-government units and their associations, entrepreneurs, Polish Hunting Association, hunting clubs of the Polish Hunting Association
2. Waste management installations	Loan	Territorial self-government units and their associations, entrepreneurs,
3. Modernisation of vehicle dismantling stations	Loan	Entrepreneurs, Vehicle, dismantling stations
4. Co-financing of collection and dismantling of end-of-life vehicles	Grant	Local communities and counties which hand over end-of-life vehicles to the dismantling stations
5. International relocation of waste	Money transfer to the current account of the Ministry of Environment Protection for co-financing environmental and water resources protection measures which are implemented by the budget of the state	Public Administration organs, including the General Inspector for Environment Protection

Source: own material based on the NFEP&WM, <https://nfosigw.gov.pl/oferta-finansowania/srodki-krajowe/programy-priorytetowe/racjonalna-gospodarka-odpadami/#c1> (20.02.2018).

The two first parts of the programme and the fourth one are addressed at the territorial self-government units. Companies can apply for the participation in the first three parts. The fifth part is addressed at public administration organs. Within the first part of the programme: "Selective collection and prevention of waste", local communities can apply for co-financing of actions connected with construction of the following:

- stationary points of selective household waste collection,
- pilot systems of selective household bio-waste from real estate owners,
- pilot systems of selective household waste collection for multi-apartment housing estates,
- further equipping of selective waste collection systems,
- development of technical infrastructure for logistic processes connected with obtaining, storage and distribution of unsold or unconsumed foodstuffs.

Beneficiaries can obtain co-financing in the form of a grant up to 100% of the qualified costs connected with investment on infrastructure, and up to 30% of the construction cost of the pilot selective systems for waste collection. In case of a loan, the maximum amount can be up to 90% of the qualified cost, at the 3M WIBOR rate not below 1% annually. Quarterly repayment period has been chosen here (*Selektywne...*, 2018). The programme "Installations for waste management" has been launched for the following scope of ventures planned by the local communities:

- new construction extension or modernization of the existing regional installations for municipal waste processing (the RIPOK), as well as the multi-regional installations for the same purpose,
- recycling of selectively collected municipal waste,
- construction, extension and modernization of existing installations for the waste other than municipal waste.

Loans up to 75% of the qualified cost have been introduced at the 3M WIBOR+ 50 base points, not less than 2% annually. The NFEP&WM has planned a co-financing period no longer than 15 years. Beneficiaries who apply for a loan bigger than 4 mln PLN are obliged to include a feasibility study. The National Found also subsidises

collection of end-of-life vehicles within the programme: "Co-financing of collection and dismantling of end-of-life vehicles". An application form for the subsidy can be lodged by local communities, towns and capital towns of the counties which have collected and sent end-of-life vehicles for dismantling. The level of the subsidy is determined by the number of vehicles and amounts to 1,000 PLN for each of the first ten vehicles, and 500 PLN for each consecutive one (NFEP&WM, 2018).

In 2017, within the programme Actions 2.2. Rational Waste Management, the National Fund was receiving, in the first place, applications for co-financing of selective municipal waste collection (the PSZOK). As a result of substantive assessment, 6 contract agreements were signed for the total amount of 33,400,000 PLN. Applications for 8 investments, other than construction are being analysed by the PSZOK fund. The applied total co-financing amounts to 142,900,000 PLN (NFEP&WM, 2018).

Conclusions

Local communities have been assigned with objectives aimed at achieving and maintaining a satisfactory level of order and tidiness related to waste management. A wide array of existing regulations influence the local markets of waste management and the relation between the plans and the ways of realization by the subjects involved. Local communities, as a result of competence and authority given by the law, have a dominant position in the system of waste management. They create and supervise this system, prevent excessive production of harmful waste, have influence on recycling or related processes and the final disposal.

Construction and maintenance of the necessary facilities and equipment for waste management is also an important objective for local communities. Realization of the goals for waste management policies requires a well-functioning system of financing. Support from various funds available can not be underestimated in the analysis. Financial means for investment activity of the communities are distributed by, i. a., the NFEP&WM in the form of grants or preferential loans. Currently, as data show, they constitute – due to a large scale of the undertaken ventures – a common and attractive source of support for active municipal waste management policies.

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MANIFESTATIONS OF IMPLEMENTATION OF THE CSR CONCEPT IN THE RETAIL BANKING SECTOR IN POLAND

MAŁGORZATA KIEŻEL

University of Economics in Katowice, Department of Marketing Management and Tourism, POLAND
e-mail: malgorzata.kiezel@ue.katowice.pl

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ABSTRACT Sustainable development as a process aiming at satisfaction of development aspirations of the present generation, in the way enabling next generations to achieve the same goals is based on three pillars – society, environment and economy. Financial sector and banks that enable exchange transactions to be conducted with the use of various forms of money are particularly important in this process. The purpose of the paper is to identify the manifestations of actions conducted by retail banks that constitute the expression of implementation of corporate social responsibility concept. Thanks to performed studies, it has been stated that the entities of the sector, more and more frequently commence activities supporting implementation of the assumptions of CSR. All analyzed banks used indirect actions, although not in the same range.

Introduction

Sustainable development as the basis for formation of healthy economy should lead to social cohesion. Financial institutions, including banks, that enable performance of exchange transactions with the use of various forms of money are particularly important in this process. In the banking sector, the entities must face the question of whether it is more important that the main goal should be the maximisation of profit for shareholders through fast

growth and dividend, or maybe it should be based on an unwritten agreement in which the needs of many stakeholders ought to be taken into consideration. Appropriate bank operations that fit well with the concept of CSR can contribute, among others, to preventing financial exclusion and educating, activating employees, supporting social actions also decreasing environment degradation. The purpose of the paper is to identify the manifestations of actions conducted by retail banks that constitute the expression of implementation of corporate social responsibility concept.

The concept of sustainable development and relationships with corporate social responsibility

— literature review

The notion of sustainable development was defined in 1987 in “Our common future” report of UNO World Commission on Environment and Development as a process that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (Dahlsrud, 2008). While planning effective strategy of achievement of sustainable development, the following three primary areas should be considered: nature protection and effective management of resources, economic growth and fair division of resulting profits, social development (Freeman, Hasnaoui, 2010).

Ecological aspect of sustainable development represents the process of reduction of environmental degradation, constant improvement of its condition and implementation of integrated environment systems, as well as development and implementation of ecological policy. Civilisation aspect means the process of searching for, and implementation of modern technologies, search for new energy sources, and social communication and implementation of new forms of non-economic activity of the society. Social aspect implies development and implementation of social policy, whereas the economic one forces the necessity to develop and implement the strategy and policy of state development. Spatial aspect justifies the need of innovative approach to spatial planning and formation of spatial policy, whereas the political and institutional one obligates to observe the principles of the discussed development in politics and management (Jabłoński, 2005).

Some researchers, e.g. Ch Laszlo (2008, p. 34) use the notions of corporate responsibility and sustainable development interchangeably. He notices that in the case of both notions, the guiding principle is the care about stakeholders and the assessment of the impact that products and enterprise operations have, with respect to their good (Borys, 2005, p. 38–49). At the same time, it must be stated that the concept of sustainable development refers not only to business activity, but also concerns the attitudes of governments, local government units, all state institutions and the whole society. On the other hand, CSR concept focusses on a specific organisation and constitutes both some philosophy, as well as a set of tools allowing for achievement of the condition of sustainable business that, apart from environmental and social benefits, guarantees long-lasting growth of enterprises in a long term (Stefańska, Śmigielska, 2013, p. 491–502).

According to K. Davis and R. Blomstrom (1975), CSR should be approached as the obligation of a corporation management to choose such decisions and actions that will contribute both to taking care about their own interest, as well as protection and growth of social well-being. CSR should also have strategic and long-term dimension, based on the principles of social dialogue and search for solutions beneficial both for the enterprise, as well as its whole environment, workers and all stakeholders (Kowalczewski, 2008, p. 322–323).

Corporate social responsibility also means that in the enterprise, the managing staff chooses such decisions and actions that contribute to taking care about own interest of the entity, i.e. multiplying profit, as well as protection and growth of social well-being”. Social responsibility is “the practice of going beyond legal regulations (obligations)

for effective balancing of obligations towards investors, customers, other enterprises and other communities” (Carroll, 1998).

Despite ambiguities, it is possible to show three common elements. They are justice – taking into consideration the rights of the poorer and future generations, long-term point of view in application of the caution principle, and systemic way of perceiving the sustainable development that enables understanding of mutual relationships between the environment, economy and society (Jeżowski, 2005, p. 59).

Method

Contribution of commercial banks to sustainable development can be implemented in a direct and/or indirect way (Korenik, 2013). In the first case, it may be achieved through observance of regulations concerning protection of environment, labour and employment, natural resources, pollution emission, co-financing of pro-ecological investments and those that are important for the society, establishment of mutual relationships with customers based on trust, development of the offer for social groups excluded from the market of financial services, and providing services to disabled people. On the other hand, actions of indirect nature include organisation of trainings and information campaigns for workers and society, co-financing actions of ecological and social (non-profit) organisations, development of corporate volunteering programs and participation in ecological and social programs (Łukasiewicz-Kamińska, 2011).

Documentation method comprising the analysis of secondary sources from the studied sector are applied in the paper. The analysis of the literature of the subject is conducted in theoretical part for the purpose of general explanation of basic categories. The study included 12 of the 19 leading commercial banks in 2017 activity based on art. 70 ust. 2 of the law on financial instruments trading (www.knf.gov.pl) – the largest banks in terms of assets. The analysis was carried out on the basis of materials available on the banks’ websites. Each of banks declares the implementation of the idea of corporate social responsibility. Research focuses on the identification of indirect forms of CSR implementation. The results were ranked in three groups due to the area of activity: educational for clients and other external stakeholders, training and activating staff (internal stakeholders), and social and ecological.

The role of sustainable development and corporate social responsibility in banking sector – results

Sustainable development of financial sector consists in reconciling economic growth with secure and effective diversification of entities providing varied financial services of substitution or complementary nature functioning in it that are intended for various groups of clients, with frequently different preferences that are determined, among others, by the level of income, inclination to risk-taking or age (Ostrowska, 2007, p. 314). Banks are entities that similarly to other enterprises are oriented on profit generation through serving their target markets (Cichy, Gradoń, 2016). At the same time, in comparison with a typical enterprise, banks are burdened with larger obligation to act in socially responsible way. It is expressed by perceiving banks as institutions of public trust, associated with high standards of operation, professionalism, honesty and responsibility (Dziawgo, 2009, p. 126).

Banks, as enterprises rationally managing the capital which constitutes their basic activity, should also have positive contribution to sustainable social and economic development. It is associated with ancillary function of banks expressed in aiming at social well-being through satisfying social and individual needs of society members who are not bank owners (shareholders). This means that society expects from an individual commercial bank that it should provide equal and fair access to its offer (products and financial services) and will positively affect the

shaping of social and economic order (Korenik, 2009, p. 144). For this purpose, banks should maximise savings of households and enterprises, manage risk with due diligence, allocate savings safely and monitor corporate order. In other words, contemporary banks should affect the society in such a way that they could develop, refine the method of organisation, and improve material standard, which contributes to future achievement of high level of wealth (Flejterski, 2007).

The idea of sustainable development is closely related to the concept of corporate social responsibility (CSR). Major areas of social responsibility of banks result from fulfilment of ancillary obligations, care about interests of private owners (bank shareholders), and observance of human rights, through suitable protection of customer and development of product with a view of their needs, contribution to creation of well-being, prevention of financial and social exclusion, creation of workplaces, care about workers and their families, care about natural environment and observance of law regulations and principles of ethics among others. Such a moral approach to business should relate to strategic instruments of consumer law and demand (Briefing Paper Compendium, 2009).

Activities in the sphere of social responsibility are accompanied by the principles that are not imposed by law, but shaped under strong social pressure. They concern, among others, social dialogue and workers' representation. Furthermore, it is expected from the banks themselves that they should put pressure on their customers and contractors to follow the principles of CSR. The principles should also be helpful in voluntary development of various forms of socially responsible banking that better meet the needs of contemporary society and economy and in ensuring sustainable development.

Examples of implementation of the assumptions of corporate social responsibility by retail banks in Poland — results

An enterprise based on sustainable and permanent development (sustainable corporation) is an economic organisation aiming at expanding long-term value for shareholders through integration of economic, ecological and social opportunities focused on increase of the value in the strategy of the company (Paliwoda-Matiolańska, 2009, p. 242). The results were ranked in three groups due to the area of activity: educational for clients and other external stakeholders, training and activating staff (internal stakeholders), and social and ecological.

Table 1. Indirect activities for the implementation of CSR

Type of actions	Banks / manifestations of activities
1	2
1.	PKO BP
Educational programs for clients and society (A)	Bankomania.pkobp.pl. educational and tutorial portal "Bankowiki" – compendium economic terms "Bankomania" – quarterly for clients "Brawo Bank" – economic guide for children
Actions for staff and employee volunteering (B)	PKO after hours – incl. first aid training to people with disabilities Employee volunteering The "PKO Bank Polski. Let's run together"
Financing and/or participation in social and ecological actions (C)	The PKO Bank Polski Foundation: Cooperation in educational programs with schools and academic centers – e.g.: Olympiad of Economic Knowledge, cooperation with the Wrocław University of Technology Partner of sporting events, especially running ones Patronage of the National Museum in Warsaw

Manifestations of implementation of the CSR concept in the retail banking sector in Poland

1	2
2.	Bank Pekao
(A)	–
(B)	"Help each other" campaign" – aid program for ill children of bank employees Blood donation
(C)	"Earth Hour" action support, "Protection of Polish bison" action support Bank Pekao SA Foundation. name of M. Canton: e.g.: "Gift Matching" Program, "Bank Pekao Project Room" CSW in Warsaw, "Tansman Festival" Supporting social initiatives "Social Start Up"
3.	Bank Zachodni WBK
(A)	Santander Universidades Finansiaki.pl – children's financial education BAKCYL – banks' program for youth financial education "How do you drive", "Around the Wheel" – driver's education
(B)	Employee volunteering: Mikolajki in community centers, charity events, food and school supplies, educational and cultural trips for children from orphanages, blood donation and bone marrow donors registration, help for families affected by poverty and unfortunate random events
(C)	BZ WBK Foundation – programs: Bank of Children's Smile, Bank of Ambitious Youth, Bank of Young Sport Champions "Tu mieszkam tu zmieniam" "Two sides of the network" – program in cooperation with the Police "Passion, Integration, Safety" – fencing integration and educational shows
4.	mBank
(A)	"m like math" – program for mathematics education, including: grants, grant program "mPotega", scholarship program "Masters of Mathematics"
(B)	Projects for employees: Bank Talents 2016, People stand out, "Sharing knowledge". "Let's do something good together" Employee Volunteering Program, "Do not throw, because he will come back" – anti-smoking program
(C)	Network security campaign
5.	ING Bank Śląski
(A)	"Społeczność ING" ("Community ING" previously forum and blog Zafinansowani.pl) loan guides at www.ingbank.pl BAKCYL ChallengingIT, ING International Talent Programme, Corporate Readiness Certificate – programs for students and graduates
(B)	Ecological actions: Earth Day, We save paper, Give back the phone Educational campaigns: World Water Day, Environmental Protection Day, Eco-responsible competition OFF Culture – the project supports the Environmental Program (sustainable management of office space)
(C)	Educational paths as part of "Smile Turns"
6.	Bank Millennium
(A)	Financial Elementary – financial education of preschoolers Cooperation with AIESEC, SKN Statistics, SGH Club of Partners Educational programs for students and graduates: Millennium Bankers, Akademia Millennium, People Grow, Expert Start Up
(B)	Ecological Guide Millennium Active Zone program – stimulating an active lifestyle Employee volunteering – planting trees, charity runs, charity auction Millantrop program – grants for the implementation of social actions reported by the Bank's employees
(C)	Bank Millennium Foundation Partner of the Kompas Młodej Sztuki Millennium Docs Against Gravity Film Festival Patron of culture 360°
7.	BGŻ BNP Paribas
(A)	Scholarship program "Class" Scholarship program "Agrotalenty" BAKCYL

1	2
(B)	"Prestige" – program of development of managerial talent Days of professional mobility, Outplacement program Employee volunteering "You can rely on me", "Good kilometers" program CSR Days – blood test, first aid workshops, meetings with a nutritionist, Workshop on people with disabilities service
(C)	"Konto z Serduszkami" – a free package of products and services for local NGOs The mamBONUS program – clients support the "Class" scholarship program BGŻ BNP Paribas Foundation – participation in the following projects: Finances and Insurance without Barriers, Youth and Philanthropy
8.	Alior Bank
(A)	educational programs for children – popularizing knowledge on entrepreneurship and finance in cooperation with the Ekomini Foundation "Matematyk w Banku" – lectures and workshops with the Faculty of Mathematics and Computer Science of the Jagiellonian University
(B)	–
(C)	–
9.	Getnin Noble Bank
(A)	–
(B)	Employee volunteering for pro-social events, such as the annual Fair Play Run Running Team Getnin Noble Bank SA
(C)	Charity project "Getnin Children" – support children's hospices Getnin Crew – an action of blood donation
10.	Citi Handlowy
(A)	Program "Moje Finanse" and "From Grosik to Złotowka" Olimpiada Wiedzy o Finansach – Banks in Action The CSR Ambassadors Program – for students Responsible Business Academy – CSR conference for students CSR knowledge contest "More trees thanks to you"
(B)	Employee Volunteering Program – participation in projects: World Citi Day for the Community, "Become an Assistant to St. Nicholas" Action, Integration Trips with Volunteering, Economic Education
(C)	Kronenberg Foundation at Citi Handlowy: e.g.: The grant program of the Local CSR Workshop, Protection of cultural heritage, Roots Program, Recovering of Works of Art, Searching for the grave of Nicolaus Copernicus
11.	Idea Bank
(A)	–
(B)	Quality Academy program – training program – disabled customer's service, reduction of energy consumption, raw materials, amount of waste Employee volunteering – blood donation campaigns, collections for shelters and orphanages, first aid trainings and amateur rescue teams, football and volleyball league, marathons "A reader-friendly employer" – propagating readership among employees
(C)	Supporting the Foundation of Jolanta and Leszek Czarnecki – scholarship programs for the gifted, support children and youth affected by injuries and diseases
12.	BOŚ Bank
(A)	Eko Poland – knowledge portal on environment-friendly
(B)	Internal contest titled Ambassador of Ekomarki BOŚ
(C)	BOŚ Foundation pro-ecological projects: "Postaw na Słońce" – promotion of microinstallation of renewable energy sources, "Green Bench" – greening of urban space, "Brudno Tu" – an inventory of wild dumps in Poland. pro-health projects for the fight against overweight and obesity #Psyzdobywajabank

Source: own study.

In recent years in Poland the banking sector has taken many actions in the sphere of financial education that is approached as an indirect form of bank contribution to implementation of CSR. Financial institutions started, among others, the actions in the sphere of formation of the awareness of responsible investments and provision of knowledge necessary to make decisions limiting financial risk – the loss of control over transactions and loss of the capability to repay the loans (Frączek, 2014, p. 34; Cohen, Lee, 2008).

Limitations

Despite growing interest of banks in the concept of sustainable development and corporate business responsibility, global financial crisis showed that the actions often were not conducted the consequent ones. Excessive focus on short-term profit and lack of responsibility for ecological and social damage was predominant among the banking sector entities. Declarative approach to the issue of social responsibility and sustainable development was accompanied mainly by conducting activities aiming at fulfilment of obligations only towards the shareholders because of economic criteria, and assuming only law-related obligations towards society. It is convergent with elementary attitude of social obligation that is generally based on goals of the economic nature. The sector entities that apart from legal and ethical obligations also undertake charity-related activities, assume the attitude of social reaction. The attitude of social contribution in which the performance of the role of the subject that actively looks for the possibility of actual contribution to improvement of general social prosperity is the highest level of social responsibility (Korenik, 2009).

Conclusions

Implementation of corporate social responsibility is manifested in continuous involvement of banks in honest and responsible behaviours in the face of growing tensions and social problems. Through provision of appropriate services/products, relationships with workers and investments in real sphere of economy, banks can affect employment, quality of labour and quality of relationships with customers. Appropriate actions contribute to improvement in the condition of natural environment and education of the society. This, in turn, translates into development of the social system while improving the quality of life of workers, as well as local communities and the whole society. Banks appreciate the role of these activities. Thanks to performed studies, it has been stated that the entities of the sector, more and more frequently commence activities supporting implementation of the assumptions of CSR. All analyzed banks used indirect actions, although not in the same range.

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VALUE OF SERVICES FOR PASSENGER IN PUBLIC TRANSPORT – THEORETICAL APPROACH

ZUZANNA KŁOS-ADAMKIEWICZ

University of Szczecin, Faculty of Management and Economics of Services, POLAND
e-mail: zuzanna.klos@wzieu.pl

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ABSTRACT The definition of the value of transport services for passenger is not easy to determine. Knowledge of the specificity of public transport as well as the general features of transport services makes existing definitions of value, that refer to products more often than to services, constrain the ease of its understanding. Therefore, for the purposes of this article, definitions of value including value for passenger and their understanding in the context of public transport services are presented. It was pointed out that this value should be shaped mainly from the point of view of the passenger, who, having a choice of different means of transport and their specific features, will choose the one to be used for everyday trips.

Introduction

Public transport is part of the city's transport system. The system consists of the following subsystems: technical, organizational and economic-legal (Grzywacz, Burnewicz, 1988). City's transport system¹ constrain to

¹ The transport system is characterized by a certain degree of atomization, meaning that there are potentially many possibilities to configure its elements (Downar, 2006).

specific area, where different means of transport are being used (see: Rydzkowski, Wojewódzka-Król, 2007):

- individual, i.a.: bicycle, motorbike, taxi, passenger car,
- group (used along with other passengers) i.a.: microbus, taxi, passenger car,
- collective, i.a.: bus, trolleybus, tram, metro, regional and urban rail.

Elements of the city's transport system can be distinguished, among others, due to the subject of carriage (passengers and goods), branch of transport (road, rail, water) as well as accessibility for transport users (public and individual). According to the Act of public collective transport, the broadest term is *collective public transport* meaning "publicly available, regular transport of people carried out at specified intervals and on a specific communication line, communication lines or communication network", whereas *urban transport* is "municipal passenger transport within administrative borders of the cities or: cities and municipalities, cities or neighbouring municipalities and municipalities" (Act on public transport, 2010).

The role of public transport² in this system has changed over time, especially due to the growing usage of passenger cars. The car, which is not only a mean of transport, has also become a symbol of independence, freedom and prestige. On the other hand, collective transport, through the implementation of assumptions related to the sustainable development of transport in the cities, is the form of transport that has an impact on improving the quality of life in the city, reducing congestion, and reducing investment expenditures related to road infrastructure. Awareness of the advantages resulting from the development of this form of transport is easier to understand through the prism of the costs, hardships and sacrifices of people using cars, condemned to road congestion, resulting from the growing use of passenger cars for daily travels. The requirements of residents regarding travelling time or reaching the goal of their journey, in the case of a growing congestion puts into question the usefulness of a passenger car. Nevertheless, attention should be paid to the fact that the use of passenger cars in everyday journeys is, in some cases, hard to replace, above all- the need to accomplish many travel destinations in a short time (e.g. transport of family members to educational institutions, to work or other places). In this case, the usability of the passenger car is much higher and it is difficult to expect that this group of people completely give up using this mean of transport. For car users, the problems are parking fees in designated zones in the city centre, restricted traffic zones, problems with finding a parking space or fuel prices. However, in other cases, a real alternative to car usage is public transport or, on a widening scale – bicycle.

Value of services – basic definitions

The concept of value of services is not easy to define. The analysis of the literature on this subject indicates the existence of many concepts concerning value that are more or less interrelated, but should not be used interchangeably. These include: *value*, *added value*, *value for customer*, *customer value*, *perceived value*, *value-in-use* and *usability*.

Based on the analysis of available Polish and foreign literature in the field of theory of value, definitions of selected terms were adopted for the purposes of the article, which will clarify further considerations.

There are different understandings under the concept of *value*. Depending on the author, its definition might be approached differently. Throughout the history of economic development as a science, this category has been

² In the article adopting a more general description of the phenomena described, the most common is public transport. The emergence of replacement terms (i.a. urban transport) resulted from understanding these concepts in a similar way, referring to public transport in the cities.

interpreted differently. Economists more often use the word *value* in a general, subjective or colloquial sense. The value can be interpreted in material terms, where the feature can be expressed by monetary or other means of payment. It can also constitute a set of features that determine the value of a given thing and its importance for individual people, as well as a number specifying how many units the given physical quantity contains (value understood from the prism of the price) (Zadora, 2004). In relation to this lack of a firm definition, it is meaningful to speak about the value of something, e.g. added value, customer value, value for the customer or value-in-use.

Nowadays an important element of competitiveness on the market is the management of added value of products and services. The *added value* can be called a feature that differentiates material products or services from each other, thus creating an additional benefit for the customer. Added value is what causes a given product or service to be perceived by the client as more desirable (Biznes. Słownik pojęć ekonomicznych, 2006). The concept of added value covers everything that goes beyond the quality of a given service, in this case – the transport service. The added value according to W. Bąkowski is higher quality at a satisfactory price. Often the added value determines the choice of a particular service (Blaug, 2000).

Presentation of the interpretation of subsequent concepts regarding value requires a reference to the specifics of the transport service. Transport production, which has not material nature, means that the product of transport activity is a service, and the production process has functional nature. The lack of material nature of transport production and unity with consumption differentiate transport activities from the production of goods and, thus, affect the nature of the transport services market (Grzywacz, Burnewicz, 1988). Transport services that exist on the market and being traded have the characteristics of goods, that is why the value of those services might be shaped.

The following economic categories are linked to the concept of value: *customer value* and *value for the customer*. The *customer value* is understood as the value of all streams that customers generate to the company, less the costs associated with providing it to the clients. These streams include: cash inflows, profitability (by acceptable prices) and information about their needs, opinions about the product, experiences with the company, brand, personnel and information on competition (Dobiegała-Korona, Doligalski, 2011).

In relation to transport, and more specifically- public transport - a passenger who is also a customer is the source of cash inflow to the city budget. The city also funds the budgets of carriers (operators) as compensation³ for lost revenues or incurred costs. However, the passenger is a source of income and at the same time he represents value in the city's mass transport system. One of the definitions of the *value for the client* is presented by R. Woodruff, who acknowledges that "these are the customer's preferences and perceptions about product attributes, attributes of its functioning and consequences resulting from its use, which enable (or prevent) reaching the client's goals and intentions in the process of use" (1997, for: Zadora, 2004).

The *value for the customer* is also defined by Ph. Kotler as the difference "between the total value for the customer and the total cost to the customer. The total value for the customer is a bundle of benefits expected by the customer in relation to a given product or service. The total cost for the customer is a bundle of costs that customers expect when assessing a product or service, their purchase and use" (Kotler, 1997).

³ Compensation, i.e. cash or other property benefits granted to the public transport operator, in connection with the provision of public transport services. Dz.U. 2011, nr 5, poz. 13. Ustawa z dnia 16 grudnia 2010 r. o publicznym transporcie zbiorowym.

In passenger transport, the value for the customer, i.e. the passenger, are the features that make up this value. The customer evaluates the product⁴ and its value according to his own criteria, which include many, also non-measurable product features (intangible features such as fashion, relish, colour or brand) (Bąkowski, 2010).

When considering a *value for a customer*, it is necessary to distinguish the value that he expects from the one he receives. The value expected by the customer is defined as “the surplus of the customer’s perceived benefits and costs associated with the use of a given service or product” (Stabryła, 2011). This is closely related to the utility of consumer decisions and affects the client’s market choices. Passenger value assessment is subjective, which is why it is perceived value, not actual.

Among the features of the concept of value for the client, the most significant is subjectivity and relativism, because these features make it difficult to indicate the universal concept of creating value for the passenger. However, support for the process of defining it, is greatly facilitated in the case of studies of preferences and travel behaviour. In addition, situational conditions cause that the value assessment is variable over time. The multidimensionality and dynamism of perceiving value are a hindrance due to the possibility of rapid changes, especially when competing with car usage. The value is ambiguous and imprecise, directly immeasurable and it is not the subject to standardization, which makes it difficult to define in proper way and indicate factors that influence its increase (see also: Cole Preston, 2006).

Value of services for passenger in public transport

Multitude and diversity of users’ needs – who are current and potential public transport passengers forces public transport organizer in the city to be flexible and shows the need to adjust the offer. Determining the value of the service through the features of the public transport offer is possible mainly due to research on the preferences and transport behaviour of the city’s residents. Public transport services, which are services of general interest, also mean that transport companies cannot treat the value of their services as a determinant of competitive position (which in this case is not taken into account), as well as profit growth.

In order to increase the number of public transport passengers, its services must be more valuable for the passengers than traveling by own car. Identification and hierarchization of factors that affect the behaviour of transport users should be translated into actions aimed at increasing the value.

In the case of making a decision regarding the choice between public transport and a car, priority is given to price and quality as the basic attributes of the value for passenger, but additional elements of this value, such as information, availability or experience might help in decision making (Figure 1).

The most important elements of the value for client include the attributes of the purchased transport service (mainly quality, price and delivery time), the image of the transport company, where experience in providing services is very important and the level of trust of users in the brand, as well as openness to customer relations (including consultancy and providing detailed information).

⁴ According to W. Bąkowski, the product of public transport is a public transport line with its elements, i.e. the beginning and the end, the construction, the number of stops, the timetable, the frequency of running and the set of vehicles assigned to operate this line. See: Bąkowski (2010), p. 222.

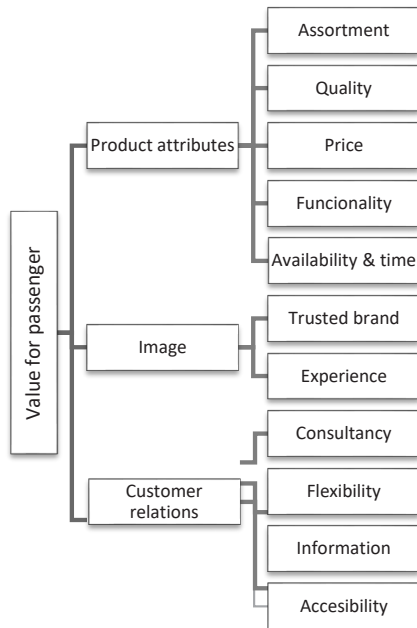


Figure 1. Elements of value for passenger

Source: own elaboration based on: Bąkowski (2010), p. 223.

V. Zeithalm emphasizes that the value is subjective, and its perception depends on the situation, while the price is an important criterion, but has a different impact on customers (1988). Another definition of value is quoted by K. Monroe: “Value perceived by buyers is a ratio between the quality or benefits perceived by them in the product and the price they have to pay for it” (1990). Thus, the increase in the *perceived value* for the customer can occur in two ways: by increasing the benefits that client experiences or reducing the costs he bears. The perceived benefits are related to the product, service, personnel or image, while the costs incurred by the client are the sum of all costs (cash and non-cash) related to the purchase of a marketing offer (Dyr, 2009, p. 173). The passenger, who is also a customer, considers the value in relation to a specific transport service, taking into account several additional features, in addition to the quality of the service, which include access to the bus stop (distance, time of arrival) or access to the vehicle (ease of entry, ease of occupancy, etc.). Moreover, the accessibility features resulting from customer relations are taken into account, such as: obtaining information on transport services, journey scheme and their prices, ticket purchase technology (e.g. e-ticket). Another important element is the price of the service, which is also compared with the value of traveling with your own car (Dyr, 2009). The concept of the value of a transport service is according to the classic formula of K. Marks transfer of a specific objectified value and necessary work related to it, the result of which is the creation of a new value for society in the form of the production of transport services. In the case of public transport, as a result of service accomplishment, its value raises according to the possibility of relocation (Grzywacz, Burniewicz, 1988).

The value category is inseparable from the concept of *value-in-use*. Work that creates value through the production of goods and services without creating added value is impossible. Value is the social side of the

transport service, and the value-in-use is its second, material side. The *utility value* of a transport service in public transport is, according to W. Grzywacz, the same movement, "...which manifests itself in the change of the location of people transported in space, enabling the achievement of a useful purpose". Utility value of transport gives an additional attribute of the utility of the place, the possibility of using it or using the activities of individual people (Grzywacz, Burnewicz, 1988). The concept that requires explanation is also *usability*. According to W. Grzywacz, it is "a subjective assessment of the level of fulfilling the transport needs from the point of view of specific postulates or a specific service recipient" (Grzywacz, Burnewicz, 1988).

Evaluation of the value of the services for passengers

The assessment of the value of the transport service for the customer through the prism of its features makes it possible to make a decision regarding the choice of a particular means of transport. The high value of the service is a factor that can influence the passenger's decision regarding the choice of public transport, while its decline increases the interest in using the passenger car, especially for people who can make this choice (owners or car users). Competition between forms of movement is quite unusual. W. Bąkowski drew attention to this, formulating research problems for the scientific discipline of transport economics (2010):

- what categories should be used to evaluate public transport products to make their assessment and be able to compete by value?
- what actions should be taken on the supply side (network, rolling stock, timetables, information, tickets and price) that will increase the value of public transport products?

Ability to offer users the value they expect, it is necessary to first know their needs. In the case of a transport service, where the basic purpose is the need to move, the characteristics of collective and individual transport decide on the choice of a particular form of movement. The passenger is interested in the effect that can be achieved when using the chosen service. The perceived value is largely the result of knowledge about services, and not the services themselves, which serve as an instruments satisfying the needs of clients (Buttle, 2011).

The growing needs in terms of the quality of mass transport services require public transport organizers to shape the value of a transport services at the level that will satisfy current and future passengers and will prompt resignation from daily travels made by car. While a certain group of residents (due to the lack of an alternative), regardless of the quality, price or availability of public transport is forced to use its services, people who have an alternative should be encouraged to choose public transport. Shaping the value of the services is therefore mainly directed to those who can travel by their own car, but when the offered urban transport service suits them in terms of price and quality, they are willing to use it. Up against the necessity to meet the daily travel requirements of residents, it is necessary to shape the value of the transport services in such a way that the need for mobility is met, while maintaining the appropriate quality in relation to the price.

Conclusions

Based on the definitions quoted in the article, it can be assumed that the concept of value expresses the level of satisfaction from using public transport services perceived and assessed by the passenger, which results from the total cost incurred to achieve the goals, objectives and benefits associated with using the service. The passenger evaluates this value according to subjective criteria, depending on the situation and related to the expected benefits

and costs. Perception of the value of the service for public transport passenger also depends on comparing it with the value of travel using other means of transport.

In many cases, the value of public transport services affects the communication behaviour of city residents, but only in conditions that allow the use of appropriate tools related to the concept of a new culture of mobility, which relate to all ways of moving around the city.

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PUBLIC URBAN TRANSPORT SERVICES IN THE CONTEXT OF THE METROPOLITAN UNION IN THE SILESIA VOIVODSHIP

BARBARA KOS

University of Economics in Katowice, POLAND
barbara.kos@ue.katowice.pl

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ABSTRACT

Urban public transport is one of the public services of great importance for the functioning of cities. Efficient and accessible public transport ensures residents' mobility, impedes traffic growth and reduces the negative impact of transport on the environment. Progressing urbanization processes are the reason why large cities work together with adjacent municipalities to create supra-local structures and associations in order to provide public transport services. An example of such a solution is the metropolitan union in the Silesian voivodship. The paper presents the basic data characterizing 41 municipalities of the metropolitan union created in the Silesian voivodship, a starting point for further research on integration, transport offer and financing of transport services in the area of the created association.

Introduction

The aim of social development is to improve the quality of life of the population, measured by a system of indicators for different spheres of life (health system, access to education, development of communal infrastructure and housing, etc.). The public sector, particularly local government, is responsible for the availability and the quality level of public services – the most important services from the communities' point of view. Urbanization is one of

the most crucial processes of economic, spatial, political and social importance in recent years. The enlargement of urbanized areas and the simultaneous separation of the functions of residential areas, together with the concentration of service and leisure functions, are main factors that increase the mobility of urban dwellers and increase the average distance travelled. Therefore, the transport factor becomes the basic determinant of the development potential of large cities and the quality of life in the city (Tomanek, 2014). In order to ensure the smooth movement of city dwellers within urban areas, it is necessary to use organizational solutions integrating public transport activities beyond existing agreements and unions of municipalities. The aim of this paper is to present issues related to the creation of a metropolitan association in the Silesian Voivodship and the characteristics of the communities involved, focusing especially on the problem of diversity.

Public transport services in urban areas

Nowadays services play an important role in socio-economic development. In the literature of the subject, the term “services” is most often understood as all manifestations of economic human activity, which are intangible and characterized by interactivity between the service recipient and the service provider. The fundamental feature distinguishing the services from material goods is their intangibility. Other features of the services – the inseparability of the provision and consumption process, inconsistency (variability), perishability, the impossibility of obtaining ownership – are the result of their intangibility. (Czubała, Jonas, Smoleń, Wiktor, 2006).

Public services (also known as social services, services of general interest) are categories of services of a public nature (non-commercial, free or only with partial fee), aimed at satisfying important social needs. Public services include, among others, health care, education, law enforcement, public transport, postal services, etc. In most countries, ensuring the proper quality level and availability of public services is considered one of the key tasks of the state. Public services are subject to the following requirements: their provision is to be continuous, undisturbed, secure and accessible with attention to their quality. Public authorities are also tasked with defining the standards, measures and techniques for monitoring the provision of public services (Wojciechowski, 2012).

Urban public transport is one of the public services of great importance for the functioning of cities (Starowicz, 2008). Efficient and accessible public transport (Kos, 2017) ensures residents' mobility (Szołtysek, 2011; Kos, Krawczyk, Tomanek, 2018), impedes traffic growth and reduces the negative impact of transport on the environment (Tomanek, 2017). All of this is of particular importance in areas with high population density such as cities. Urban public transport indirectly affects the growth of public activity, including professional activity, which in turn affects the economic development of cities and improvement of the investment climate. Progressing urbanization processes are the reason why large cities work together with adjacent municipalities to create supra-local structures and associations in order to provide public transport services in a wider system than the municipality. At the beginning of the 1990s, in some areas, the municipal law of inter-municipal unions enacted in the Local Government Act was utilized and solutions ensuring the joint organization of public transport services and their integration were implemented (Dz.U., 1990).

An example of such inter-municipal union is the Municipal Transport Union of the Upper Silesian Industrial District in Katowice (pl. Komunikacyjny Związek Komunalny GOP w Katowicach – KZK GOP) operating for more than twenty years in Silesia or the Trans-municipal Passenger Transport Association in Tarnowskie Góry (pl. Międzygminny Związek Komunikacji Pasażerskiej w Tarnowskich Górach – MZKP).

Legal conditions for metropolitan areas

The 2003 Planning and Land Use Act defined “metropolitan area” as an area of a big city and a functionally related immediate environment, as defined in the concept of the spatial development of the country (Dz.U., 2003).

The Concept of Spatial Development of the Country 2030 (pl. *Koncepcja Przestrzennego Zagospodarowania Kraju 2030 – KPZK 2030*) (Rada Ministrów, 2011) is the most important national strategy document on spatial development of the country. KPZK 2030 applies the term metropolitan area consisting of a core and outer zone to entities of various types: urban and rural municipalities forming part of the area, monocentric spatial units (e.g. Poznan) and polycentric (e.g. Tricity, Upper Silesian Agglomeration, bipolar Bydgoszcz with Toruń). The necessity of appointing metropolitan centres in the KPZK 2030 results from the provisions of the Land Use Planning Act. Based on the experience of other countries and after analysing ESPON’s work, one can consider as metropolises those urban areas (including their functional areas), which are centres of economic governance at least at the national level, which have high economic potential (e.g. transnational investment attractiveness), provide higher-order services and fulfil symbolic functions, are characterized by high external tourism attractiveness, high educational opportunities and innovation (enhanced higher education, presence of research and development units), have the capacity to maintain commercial, scientific, educational and cultural relations with international metropolises and are characterized by high internal and external transport accessibility. The following criteria (data for 2009) were used to designate metropolitan centres (and functional areas around them): population in the metropolitan centre above 300 thousand residents; employment in the market services sector (financial intermediation, real estate and business services) over 40 thousand, the number of students studying in a given city in the academic year 2007/2008 above 60 thousand, cooperation of research institutions in the 5th and 6th EU Framework Programs, the location of the airport serving passenger traffic, the location of four- and five-star hotels, international exhibitions in exhibition venues in the years 2006–2008. The above criteria are fulfilled by: Warsaw, Upper Silesian Agglomeration (the main centre in Katowice), Cracow, Lodz, Tri-city, Poznan, Wroclaw, bipolar Bydgoszcz with Torun and Szczecin. In the case of Lublin metropolitan features were indicated, but without the location of the airport serving passenger traffic. However, due to its development significance, e.g. in terms of academic potential (large scientific centre), concentration of economic activity and as a place of contacts with countries located to the east of Poland it was also designated as a metropolitan area (Rada Ministrów, 2011).

In 2007 (8.06.2007), the Silesian Metropolis formally the Metropolitan Association of Upper Silesia (pl. *Górnośląski Związek Metropolitalny – GZM*) was created as a municipal union composed of 14 cities with county status. The aims of this union are: the general development strategy of the member cities, road infrastructure management, labour market activation, preparation of analysis and reports about the labour market and support for public education (Urz. Woj. Śl., 2007).

According to the Act of 9 October 2015 on Metropolitan Unions (Dz.U., 2015), the basis for a new form of association of territorial local government units was created. The Metropolitan Unions Act, which came into force on January 1, 2016, introduced the possibility of creating metropolitan unions by municipalities and counties of the metropolitan area, defined as “a spatially coherent sphere of influence of a city which is the seat of a voivode or voivodship’s council, characterized by strong functional associations, the advancement of urbanization processes and inhabited by at least 500,000 people” (Dz.U., 2015). The Act defined the tasks of the metropolitan union as:

- shaping the spatial order,
- development of the union’s area,

- organization of public transport in the union area,
- cooperation in determining the national and provincial roads within the area,
- promotion of the metropolitan area.

The Act did not predict how many metropolitan relationships should be created in Poland. The Act, due to lack of regulations for implementation, has not been used to create such unions. This led to the relatively swift preparation and adoption of a new Act on March 9, 2017 – on a Metropolitan Union in Silesia (Dz.U., 2017). That means that the scope of such associations was narrowed down to one association in Silesia. However, it was also pointed out that this is a pilot project and does not exclude future expansion of legal regulations for further metropolitan areas in Poland.

The metropolitan union in the Silesian voivodship

The metropolitan union in the Silesian voivodship is an association of Silesian voivodship's municipalities, characterized by the existence of strong functional links and the advancement of urbanization processes, located in a spatially coherent area with at least 2,000,000 inhabitants.

In the case of the metropolitan union created, a solution was adopted in which, according to Art. 4 sec. 1 of the Act of 9 March 2017, the Council of Ministers may, by regulation: establish a metropolitan union in the Silesian voivodship, determine the name and location of the seat of the authorities, and determine its territory and boundaries by indicating the municipalities belonging to that union. The Ordinance of the Council of Ministers of 26 June 2017 on the establishment of a metropolitan union under the name of "Górnośląsko-Zagłębiowska Metropolia" (Rada Ministrów, 2017) in the Silesian Voivodeship states that a metropolitan union under the name of "Górnośląsko-Zagłębiowska Metropolia" is established in the Silesian Voivodeship with Katowice as the seat of its authorities. The area and boundaries of the metropolitan union "Górnośląsko-Zagłębiowska Metropolia" include (Dz.U., 2017):

- municipalities – cities with county rights: Bytom, Chorzów, Dąbrowa Górnicza, Gliwice, Katowice, Mysłowice, Piekary Śląskie, Ruda Śląska, Siemianowice Śląskie, Sosnowiec, Świętochłowice, Tychy and Zabrze,
- municipalities with town status: Będzin, Bieruń, Czeladź, Imielin, Knurów, Łędziny, Łaziska Górne, Mikołów, Pyskowice, Radzionków, Sławków, Tarnowskie Góry and Wojkowice,
- and municipalities: Bobrowniki, Bojszowy, Chełm Śląski, Gierałtówice, Kobiór, Mierzęcice, Ożarówice, Pilchowice, Psary, Rudziniec, Siewierz, Sośnicowice, Świerklaniec, Wyry and Zbroslawice.

The Regulation came into force on 1 July 2017.

According to the Act on the metropolitan union in the Silesian voivodship, significant changes in the urban public transport system will take place in the next few months in the central part of the Silesian voivodship. During the transformation, there will be a need to solve many problems and thus the opportunity to implement new solutions will appear in the area of financing and integration of public transport. From the point of view of the organization of public transport it is important that the city of Tychy, which until now was outside the scope of KZK GOP (which meant a separate system of public transport) entered into the structure of the new metropolitan union. Also the entry of the town of Tarnowskie Góry to the metropolitan union may change the rules of organization in the northern part of the metropolis. Until now, public transport in Tarnowskie Góry was organized by MZKP Tarnowskie Góry.

KZK GOP, which has dealt with the organization of urban public transport up until now, was formed by 29 municipalities in the central part of the Silesian voivodship, which have all entered the structure of a metropolitan

union. One of the problems that needs solving is that the municipalities of Orzesze and Ornontowice, and the towns of Oświęcim, Miedźna and Pszczyna which had been served within the agreement of the Municipal Communications Board in Tychy (pl. Miejski Zarząd Komunikacji w Tychach – MZK) have not joined the metropolitan union. Similarly, in the case of the MZKP in the Tarnowskie Góry, the municipalities of Miasteczko Śląskie, Wielowieś, Krupski Młyn and Toszek remained separate from the structure of the metropolitan union. This will therefore require changing the organizer of transport for the selected lines as well as concluding new agreements to maintain the integrated tariff solutions.

Studying the diversity of municipalities and determining the boundaries of a metropolitan union between municipalities with higher urban density and urban character and rural municipalities, is important in terms of designing future solutions for offering transport services and their funding (Dydkowski, Kos, 2017).

Table 1 presents the basic data characterizing the municipalities forming the metropolitan union of the Silesian Voivodship with the indication of the municipalities previously served by MZK Tychy and MZKP Tarnowskie Góry. It should be noted that in relation to large city data, the number of residents is generally smaller than the number of people staying in the city and using public services. The next columns show the area of a given municipality, the population density allowing for the assessment of the degree of spatial development and urbanization of the city and the amount of exploitation work in the area of particular municipalities. In subsequent columns, the workload was calculated in individual units per capita and per unit area. The total amount of local collective transport allowances per capita and per unit of workload (vehicle-kilometres) was also presented.

Table 1. Basic data characterizing municipalities of a metropolitan union established in the Silesian Voivodship as at 31.12.2016 or in 2015

No.	Municipality	Population in accordance to the place of residence, as of 31.12.2016 (inhabitants)	Total surface area (km ²) 2016	Density of population (2016)	Transport operations within the area of municipality (2015) (vkm)	Saturation with transport operations, number of vehicle-kilometres per 1 km ² of municipality surface area (2015)	Transport operations (in vehicle-kilometres) per one inhabitant (2015)	Subsidy for collective urban transport (expenditures for local collective transport) per one inhabitant (PLN) (2015)	Subsidy for collective urban transport (expenditures for local collective transport) per one km (PLN) (2015)
1	2	3	4	5	6	7	8	9	10
1.	Będzin	57,761	37	1,546	3,911,945	105,728	68	322	4.76
2.	Bieruń	19,575	40	483	46,622	1,166	2	11	4.63
3.	Bobrowniki	11,905	52	231	817,576	15,723	69	250	3.63
4.	Bojszowy	7,630	35	220	220,000	6,286	29	121	4.20
5.	Bytom	170,059	69	2449	7,223,434	104,687	42	208	4.91
6.	Chełm Śląski	6,144	23	263	231,975	10,086	38	184	4.87
7.	Chorzów	109,541	33	3,295	4,318,803	130,873	39	158	4.01
8.	Czeladź	32,225	16	1,967	1,252,832	78,302	39	169	4.37
9.	Dąbrowa Górnicza	122,451	189	649	6,632,730	35,094	54	269	4.98
10.	Gierałtowiec	11,834	38	311	534,505	14,066	45	183	4.03
11.	Gliwice	182,969	134	1,367	6,945,095	51,829	38	129	3.40
12.	Imielin	8,888	28	318	125,541	4,484	14	64	4.52
13.	Katowice	299,012	165	1,816	19,696,603	119,373	66	303	4.62
14.	Knurów	38,685	34	1,139	920,348	27,069	24	102	4.29

1	2	3	4	5	6	7	8	9	10
15.	Kobiór [*]	4,905	48	102	68,000	1,417	14	59	4.24
16.	Lędziny [*]	16,807	32	531	229,003	7,156	14	62	4.52
17.	Łaziska Górne [*]	22,418	20	1,117	636,000	31,800	28	120	4.21
18.	Mierzęcice ^{**}	7,632	49	154	458,392	9,355	60	179	2.98
19.	Mikołów [*]	40,027	79	505	1,901,166	24,065	48	208	4.38
20.	Mysłowice	74,711	66	1,139	3,064,135	46,426	41	176	4.31
21.	Ożarówce ^{**}	5,714	46	125	415,495	9,033	73	215	2.05
22.	Piekary Śl.	56,126	40	1,404	2,422,643	60,566	43	114	2.65
23.	Pilchowice	11,618	70	166	107,773	1,540	9	38	4.05
24.	Psary	11,939	46	259	695,880	15,128	59	223	3.81
25.	Pyskowice	18,418	31	596	382,324	12,333	21	65	3.12
26.	Radzionków	16,965	13	1,285	432,279	33,252	25	78	3.05
27.	Ruda Śląska	139,412	78	1,794	5,562,055	71,308	40	129	3.25
28.	Rudziniec	10,638	159	67	8,136	51	1	3	3.98
29.	Siemianowice Śl.	68,011	25	2,667	2,474,100	98,964	36	111	3.07
30.	Siewierz	12,323	114	108	470,765	4,130	38	151	3.93
31.	Stawków	7,092	37	193	221,238	5,979	31	122	3.93
32.	Sosnowiec	206,516	91	2,268	8,780,672	96,491	42	228	5.38
33.	Sośnicowice	8,742	116	75	100,637	868	12	45	3.88
34.	Świerklaniec ^{**}	11,888	45	266	664,530	14,767	56	120	3.04
35.	Świętochłowice	50,750	13	3,813	1,445,906	111,224	28	156	5.51
36.	Tarnowskie Góry ^{**}	61,099	84	730	2,560,143	30,478	42	128	3.05
37.	Tychy [*]	128,415	82	1,570	5,574,028	67,976	43	189	4.35
38.	Wojkowice	9,078	13	710	554,987	42,691	61	221	3.61
39.	Wry [*]	7,876	35	227	187,000	5,343	24	101	4.22
40.	Zabrze	175,882	80	2,188	6,857,997	85,725	39	188	4.83
41.	Zbroslawice ^{**}	15,879	148	107	1,233,699	8,336	78	234	3.01

^{*} Municipalities served by MZK Tychy.

^{**} Municipalities served by MZKP Tarnowskie Góry.

Source: based on GUS (2017), KZK GOP (2017); data obtained from MZKP Tarnowskie Góry; data obtained from MZK Tychy.

On the basis of the data collected, a great diversity between municipalities constituting a metropolitan union in the Silesian Voivodship can be observed, both in terms of population size, population density, transport operations (measured in vehicle-kilometres), as well as in transport operations per capita work and per surface area (km²). In individual municipalities, a subsidy for collective transport per capita as well as for one vehicle-kilometre of transport operations, is also very different. There is therefore considerable variation in the municipalities of the established metropolitan union – from the point of view of the features important for the organization of collective public transport. That can be partially explained by different functions performed by each of the municipalities described.

Conclusions

It can be observed that the approach to the delimitation of metropolitan areas in the legal regulations has changed. On April 4, 2017, the President of the Republic of Poland signed a law of March 9, 2017 for a metropolitan union in the Silesian voivodship, characterized by the existence of strong functional links and the advancement of

urbanization processes, located in a spatially coherent area with at least 2,000,000 inhabitants. The adoption of that Act is the result of long-standing discussions on the introduction of special solutions for metropolitan areas. According to the Act, the Council of Ministers established a metropolitan union under the name of "Górnośląsko-Zagłębiowska Metropolia" in the Silesian voivodship, assigned its name, location for its seat of authorities and determined its territory and boundaries by indicating the municipalities belonging to that union. The tasks related to collective public transport are among the most crucial for the metropolitan union.

Municipalities forming the metropolitan union operate in consistent structures and already carry out or should carry out a uniform communication policy. The fact that the metropolitan union that will be formed will cover all municipalities of the currently functioning KZK GOP is very positive, since it will facilitate further organizational transformations related to the inclusion in the integrated public transport system of municipalities previously served by the MKZ Tychy and MKZP Tarnowskie Góry.

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IMPORTANCE OF EUROPEAN COMMISSION'S NEW INITIATIVES IN ROAD TRANSPORT FOR COMPETITIVENESS OF SERVICES PROVIDED BY POLISH HAULIERS

ALEKSANDRA KOŹLAK

University of Gdansk, POLAND
e-mail: a.kozlak@ug.edu.pl

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ABSTRACT Road freight transport is the main inland transport mode in the EU. International transport is fully open to competition and it is only national transport that is still subject to some restrictions. Access to the road haulage market and certain social and safety conditions (such as hours of driving) are regulated at the EU level. Taking into account changes on the market and the current situation the European Commission has decided to renew the most important regulations. The main research problem in this paper is how these new regulations will influence competitiveness of Polish hauliers. The article analyses the current competitiveness of Polish hauliers and the impact of the EC's proposals on their activities. Methodology of the research includes analysis of the scientific literature, documents of European Commission and statistical data analysis. Research findings show that Polish hauliers increased their performance and share in the European road haulage market last years. The most important factor of the competitiveness on the road transport market is the price as the quality of services is rather similar. Polish companies have competitive advantage on account of lower costs, mainly the cost of fuel and driver wages. The changes in regulations proposed in the "Europe on the Move" road package will significantly increase costs of Polish enterprises and thus decrease their competitiveness.

Introduction

The international transport market encompasses a diverse space in geographical, economic, organizational and technical terms which creates diverse competitive conditions for hauliers from different countries. These differences are considerably smaller between countries that have been European Union members for a long time and the Central and Eastern Europe (CEE) countries that joined the Community in 2004 and later.

The EU has already achieved a relatively high level of harmonization of the conditions of competition, which is a result of many years of work of the legislative bodies of the Community. It has aligned the law to the needs arising from the economic integration and liberalization of transport markets. The freedom to provide services is a fundamental principle of the common transport policy. It requires that all hauliers from the member states are guaranteed access to international transport markets without discrimination depending on their nationality or place of domicile. It was therefore necessary to harmonize the national rules concerning the technical standards for vehicles, the rules of haulier licensing, the freedom of establishing enterprises, the social regulations or the tax systems in order to shift from the quantitative to qualitative market regulatory framework.

The work recently undertaken by the European Commission has been triggered by major changes in the market share of hauliers from individual countries (an increased share of hauliers from the Central and Eastern Europe) and by introduction of restrictive measures by countries that wish to impede access to their internal markets justifying it by social reasons. The European Commission is working on preparing amendments to selected legislative acts, which mainly concern access to the haulier's profession and to the market in respect of selected social regulations including remuneration of posted workers and the road toll systems.

The main research problem in this paper is how these new regulations will influence competitiveness of Polish hauliers. The aim of the article is to assess the current competitive position of Polish hauliers on the European freight market and to determine the impact of the changes proposed by the European Commission in the "Europe on the Move" road package on their competitiveness. Results of this study can be useful for the purposes of transport policy. Methodology of the research includes analysis of the scientific literature, documents of European Commission and statistical data analysis. The competitiveness of carriers from different countries is assessed on the basis of the rate of changes in the freight volume and the transport performance as well as the share in European market.

Conception of enterprises' competitiveness

Competitiveness as an economic category, in the most general terms, is defined as the ability to succeed in economic competition. This term is derived from a sphere of microeconomics that investigates the behaviour of economic entities operating in the conditions of market economy that seek for ways to gain and retain advantage over other market participants performing similar activities. It is important to emphasize the difference between the concepts of competitiveness and competition, since competitiveness is a feature (characteristic) of specific entities, while the notion of competition determines the processes taking place in the market in which entities compete (Kozlak, 2007).

The concept of competitiveness is one of the basic terms of modern economics, nonetheless, in the literature it is defined differently and interpreted in different ways which results from non-uniform views and various value systems of the authors of specific definitions. For example, neoclassical economics explains competitiveness within the framework of the microeconomic price theory in a perfectly competitive market, while in the theory of marketing, competition is considered from the consumer's point of view and preferences (Chmielak, 2004). The wide overview of concepts, definitions and measures of competitiveness can be found in the article of Siudek and Zawajska (2014).

The vast majority of the definitions of competitiveness refer to the notion of ability: "competitiveness is the ability to..." (Flejterski, 1984; Buckley, Pass, Prescott, 1988; Krugmann, 1990; Porter 1990), however, it is fairly difficult to measure and evaluate this ability, which in practice leads to an assessment of the level of ex-post competitiveness by observing the results of competition. For example, Flejterski (1984) has defined competitiveness as the ability to

design, manufacture and market products the prices, quality, and other attributes of which are more attractive than those offered by competitors.

Competitiveness can be looked at three different but interrelated levels: country, industry and firm level. Many of the definitions are universal, applicable at every level of competition, which means that they can refer to an enterprise, a region, a country, or even a group of co-operating countries. These include the OECD (1992) definition, one of the most well-known and most often quoted ones, whereby the essence of competitiveness is the ability of companies, sectors, regions, nations or transnational groups to compete, i.e. to increase their market share and ability to sustainably maintain a high rate of return on the employed factors of production and a high level of employment (Stankiewicz, 2002).

Defining competitiveness is complicated by the fact that the notion of competitiveness may include both a dynamic element that determines the factors that make up a competitor's ability to compete and a static one that determines the effect of that ability at a given moment. Therefore, it is possible to speak about a competitive ability and a competitive position whereby three types of definitions can be distinguished (Radło, 2008):

1. Competitive position definitions that relate to the results achieved by the entity, including economic performance and market share. They focus on assessing the achieved competitive position.
2. Competitive ability definitions that focus on evaluating the sources of competitiveness of the entity that affect future competitive positions such as the size and structure of resources or the efficiency of their use. These definitions assess an entity's ability to cope with competition, i.e. its competitive ability.
3. Mixed competitive ability and competitive position definitions which combine both the above approaches to the assessment of competitiveness. Definitions of this type are of a most complete nature, as they take into account the interaction that occurs between the achieved level of competitiveness and the set of its determinants.

Primary sources of competitiveness are born in the process of development of enterprises. These sources can be categorized under 'asset', 'processes' and 'performance' on spectrum of strategic and operational levels (Ajitabh, Momaya, 2004). However, it is also the economic, political and social environment of the region and the country that can foster or not the international competitiveness of enterprises and certain sectors of the economy (Pierściołek, 2006).

Competitiveness of Polish road hauliers on European market

The entry of Poland into the European Union and the liberalization of restrictions on access to the transport market, initially in international transport, and then in cabotage carriage (i.e. carriage of cargo in a country other than the country in which the vehicle is registered) as well, has created new prospects of development for Polish road transport companies, but it has also created conditions of international competition different than before. The number of competing entities from different countries has increased significantly, and the factors influencing the competitiveness of enterprises have become more diversified.

The competitiveness of transport services provided by carriers from different countries can be assessed on the basis of the rate of changes in the freight volume and the transport performance as well as in the share of hauliers from individual countries in the freight turnover on the European market. Firstly, the rate of changes in the transport performance was analyzed compared to 2000, which was assumed as the base year. The rate of changes in the transport performance of all EU-28 hauliers and Polish hauliers was compared (Figure 1).

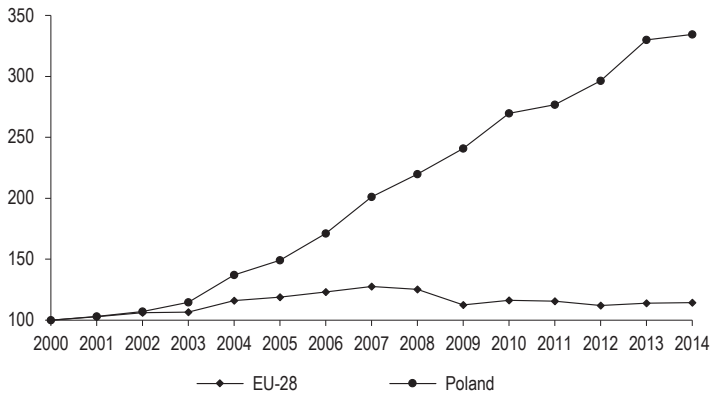


Figure 1. Rate changes in transport performance in EU-28 and in Poland in 2000–2014 (2000 = 100)

Source: own elaboration on base of data European Commission (2016).

Figure 1 shows that a significant increase in the transport performance in the European Union was noted after accepting new countries to the group in 2004, and then, following the global economic recession, the freight volume decreased in 2008–2009. In the following years, the transport performance volume was at a similar level in the range of 1,693–1,755 billion tonne-kilometres (European Commission, 2016). And the transport performance of Polish hauliers was steadily increasing, even in those years where a decline in the EU was noted. In the years 2000–2014, the transport performance of Polish hauliers increased by almost 235%, which proves their high competitiveness and constant development. The largest portion of the increase in the transport performance of Polish hauliers is accounted for by international transport, both in the service of the Polish foreign trade as well as the foreign and domestic trade of third countries.

Polish hauliers have been successful on the European market, and the growth in their transport performance is significantly better than the performance of hauliers from other countries. This was confirmed by further analysis of competitiveness, which consisted in comparing the volume of change in the transport performance of hauliers from all member countries in the period 2000–2014. Both the change in the transport performance volume in natural units (tkm) as well as in per cent was considered to show the rate of change (Figure 2).

In the analysed period, the greatest increase in the transport performance was noted by the Polish hauliers (175.9 billion tkm) and it was four times more than achieved by the Spanish hauliers who took the second place in this regard and six times more than the German carriers. A significant growth rate in the transport performance was seen with the hauliers from Bulgaria, Lithuania and Croatia, however, the values of this increase were not higher than 22 billion tkm. The expansion of Polish hauliers in the European market has led to the takeover of a large portion of the freight operated so far by hauliers from other countries. The greatest losers in this respect were hauliers from Italy, France, the United Kingdom and Belgium.

Due to the above mentioned changes in the transport performance volume, the share of hauliers from individual countries in the market has also changed. The Germans managed to maintain the largest market share (18%), while Italian, French and British hauliers were overtaken by Polish hauliers taking the second position with a share of 14.5%, followed by Spanish carriers with a share of 11.3%. Subsequent places were taken by French

(9.6%) and British (8.3%) hauliers. The carriers of the five mentioned countries with the highest market share account for 61.7% of the transport performance in all the EU member countries.

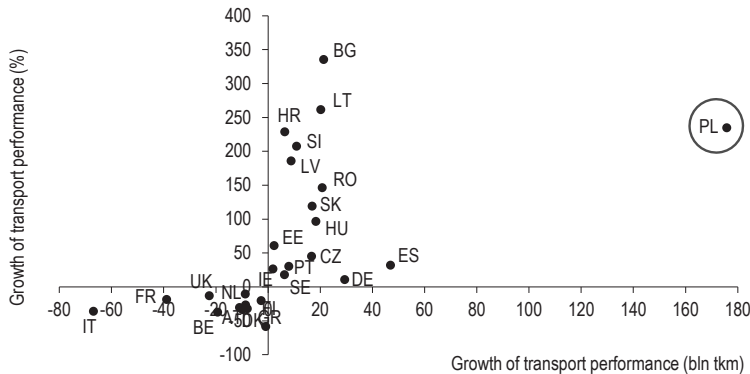


Figure 2. Change of haulage in EU countries in 2000–2014 (in billion tkm and in %)

Source: own elaboration on base of data European Commission (2016).

The competitive position achieved in the transport market is a result of internal (depending on the haulier) and external (resulting from the socio-economic specifics of the member states' policy) competitive factors (Kozłak, 2007). According to Burnewicz (2017), factors of the highest significance for competitive ability of enterprises in road transport sector are: costs and prices of transport services, quality of services, flexibility and adjustment to client's needs, organisational potential of the companies, human resources, fleet of transport vehicles and modern technologies. Nevertheless, the most important competitive factor in the road freight transport is the price of the service, as the quality of service is generally at a similar level (Langvinienė, Sližienė, 2012).

The price level depends on the cost of providing the service and the applied profit margin. The basic components of road transport costs are wages and payroll deductions, purchase costs of consumables (mainly fuels), depreciation, taxes and fees. Central and Eastern European countries are gaining competitive advantage mainly due to the relatively low labour costs and lower fuel prices, to some extent. On the other hand, most of the old member states are characterized by a higher level of technology, innovation and better productivity. The cargo volume is also influenced by the size of the internal market, which is particularly visible in the case of Germany and Spain. Eurostat data shows that foreign hauliers have taken over only a small portion of the national freight volume of a given country. The share of foreign hauliers in national transport varies from 0.5% in Croatia to 10% in Belgium, while the EU-28 average is approx. 3% (European Commission, 2017a).

European Commission's new initiatives in road transport and their impact on Polish hauliers

Since the beginning of the functioning of the common market of the European Union (formerly the EEC), road transport has been the subject of interest of the authorities responsible for the transport policy and it is for this transport sector that the greatest number of legal acts have been issued. They have concerned both the harmonization of different types of standards as well as access to specific fragmentary markets. The road transport

is used for the largest number of transport operations and this branch is of fundamental importance for the functioning of the whole industry.

Although the EU regulations are regularly amended and better adapted to the market realities, in some countries they do not sufficiently protect the market from the competition from Central and Eastern European hauliers. Taking advantage of the ambiguity of some EU regulations or the fact that certain issues have not been regulated, these countries introduce their own solutions to restrict through administrative or legal measures the possibility for foreign hauliers to provide transport services. These solutions restrict access to cabotage directly or indirectly through increased costs of providing services (the requirement to use minimum wages in the country of service), complicating the administrative procedures and imposing very high penalties for oversight and breach of regulations.

Monitoring of the European road transport market and the occurrence of various negative phenomena on this market (from the point of view of some or a whole group of countries) is the reason why the European Commission from time to time takes initiatives to make changes in the existing laws or to adopt new ones. It does not always find justification for the purposes of improving the functioning of the market, increasing efficiency and reducing external costs. Unfortunately, this is often a result of pressure from some stakeholders operating in the market.

In late May 2017 the European Commission presented the so called "Europe on Move" road package including a proposal to amend the most important legal acts related to the road transport (European Commission, 2017b). These changes concern three areas: (1) the functioning of the internal market; (2) social legislation; (3) road tolls. As the regulations of the third group focus on aspects of unifying the electronic road toll platform, they will not be considered hereinafter. However, the competitiveness of Polish carriers will be affected by the proposed changes in the functioning of the market and social regulations.

An important element of the "road package" are the regulations on cabotage. Currently, cabotage is limited to 3 operations and to 7 days. If the proposed amendments enter into force, the regulation limiting the number of cabotage routes will cease to apply. The only limit for cabotage will be a 5 day time limit (European Commission, 2017d). In practice, this would liberalize the cabotage rules, since it would be possible to operate on short routes and make several times more operations than before. This solution should be considered as beneficial from the point of view of Polish hauliers as it would reduce the number of the so called empty routes and it would improve efficiency. Nonetheless, the reason for the dissatisfaction of Polish transport companies is the proposal to shorten the cabotage period from 7 to 5 days.

Another important issue in terms of market functioning is the professionalization of the transport market for vehicles below 3.5 tonnes DMC. Although the introduction of tachographs has been abandoned, nonetheless, certain provisions, e.g. those related to the establishment of transport enterprises or the requirement to obtain Community licenses will apply to enterprises that use such vehicles. However, no specific drafts of the new legislation have been presented yet (European Commission, 2017b).

The social regulations include provisions related to the remuneration of employees and the working time of drivers. The proposed regulation on posting workers to another country assumes that drivers will be considered as posted already after 3 days, and in the situation of cabotage operations (the point of loading and unloading is within one country) from the first day already. The problem is that the posting of workers will not only mean the requirement to pay the host country's minimum wages (as was the case under the national laws of e.g. Germany or

France), but also to comply with a whole range of other national regulations such as social allowances or holiday leave regulations (European Commission, 2017c).

Changes in the rules of posting workers will be especially painful for Polish hauliers, as the wages of drivers will increase, and in this way Polish companies will lose their current competitive advantage. Enterprises may try to avoid becoming subject to this regulation by rotating drivers on specific routes, but this in turn would force an increase in employment and possibly the purchase of additional vehicles. Such "procedure" can be problematic also due to the fact that currently there are not too many drivers with licenses to drive heavy vehicle systems. The increase in costs may slightly limit the reduction of bureaucracy and requirements for transport companies to keep and provide adequate documentation to the authorities of the countries that have already introduced the provisions relating to the posting of road transport workers. The EC plans to standardize the posting system in the whole EU by introducing an electronic platform, removing the obligation to have a representation in each country to which the employee is posted and authorize the storage of payroll records in the electronic form only (OCRK, 2017).

The proposed changes concerning the working time are aimed at making the working time schedule more flexible by allowing the driver to receive two subsequent short-term weekly rests within a 4-week period, retaining of course the applicable rules of compensation. On the other hand, the European Commission believes that drivers should have the right to rest in appropriate conditions, which involves the ban on having the regular weekly rests lasting over 45 hours in the vehicle cab. Drivers should rest at a place of accommodation equipped with sleeping and sanitary facilities (European Commission, 2017e). As a result, Polish transport companies will incur additional accommodation costs for drivers who have slept in vehicle cabs so far or they will have to plan routes in such a way that drivers should arrive for a regular weekly rest at home. The latter situation will also be more beneficial for drivers as it will allow them to spend more time with their families. The growing cost of providing drivers with accommodation outside the vehicle will affect carriers from countries located peripherally in relation to the largest transport markets, i.e. mainly from Central and Eastern Europe.

Conclusions

Many Polish road haulage enterprises are implementing strategies of expansion on international markets and the position achieved by them in Europe shows that they are competitive. The analysis of the competitive ability of enterprises from different countries has shown that the increase in the transport performance volume of Polish hauliers was several times higher than in other countries, and hauliers from some countries noted even a decrease in the freight volumes. The main factor of competitiveness has turned out to be lower labour costs.

The takeover of a significant part of the market by hauliers from Central and Eastern Europe has raised objections in countries with higher costs of providing services. There is an opinion that taking advantage of large differences in labour costs is inconsistent with fair competition and that wages should be at the same level as in the country where the service is provided. Unfortunately, the European Commission has agreed with this opinion and if the regulation is adopted in the proposed form, the costs will significantly increase in Polish enterprises and they will have to raise prices. The widespread rise in prices of transport services in Europe will translate into an increase in the prices of transported goods, and as a result of an increase in the cost of transport services, the competitiveness of the European Union as a whole in the world market may decline.

The proposals of changes presented in the "EC road transport package" designate a new direction for the functioning of the European road transport market and will be implemented gradually, after being finally formed

following consultations and negotiations. Negotiations will not be easy as neither the EU-15 nor the Central and Eastern European countries are satisfied, the former with the liberalization of cabotage in particular, and the latter believing that most of the planned changes will increase the costs of the provided services and decrease their competitiveness.

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ASSESSMENT OF LOGISTIC CUSTOMER SERVICE IN THE CEP SECTOR ON THE EXAMPLE OF CRACOW

AUGUSTYN LORENC

Cracow University of Technology, POLAND
e-mail: alorenc@pk.edu.pl

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ABSTRACT The services sector of Courier Expressways and parcel (CEP) is one of the fastest-growing service sectors. This is due to a specific evaluation of quality by customers in the final stage of the supply chain – what has been called the last mile problem. Logistics customer service is a key tool for building the company's competitiveness in the market. This article evaluates the effectiveness of X-Press Couriers customer service focused primarily on timely delivery of services and the number of complaints filed. Acquisition of information on this subject was allowed by access to the complaint database and the Trucker system. The characteristics of the courier business in Poland and the assessment of cooperation with Polish companies of TSL was done. On the basis of the research conducted by the SGH Center for Economic Counseling and Expertise, the impact of KEP on Polish companies was illustrated. Data provided by the X-Press Couriers division of Cracow allowed us to focus on one of the most important logistic measures of customer service, ie the timeliness of service. The presented data is based on the knowledge gained while working in this company and on the collected statistics.

Introduction

The definition of the courier service according to the Act (Dz.U. 2003, nr 330, poz. 1188) states that it is not universal in nature and relies on expedited shipping and delivery of consignments at guaranteed time (Dz.U., 2003). The CEP services (Courier, Express and Parcel) is the most dynamically developing sector in the TFL market (Transport-Forwarding-Logistics). The reason for this fact is that companies invest in modern technology and care

about the quality of customer service. Small courier companies tend to merge to strengthen their position on the market. However, in spite of their reputation they have to strive for continuous improvement in efficiency, in order to ensure a high level of service.

Creating a proper courier business in Poland can accept the year 1989, which was also a period of socio-economic changes in our country. The emergence of competing companies, the introduction of free market rules, and the release of individual economic initiatives at the time were significant facilitation (Jacyna-Golda, Pyza, Szczepański, 2015). The following courier companies were established: Opek (1994), Stolica (1993), Kurierserwis (1992) and Masterlink Express (1991). The interest was so great that the advantage of the good conditions created their subsidiaries in Polish, thus mastering a significant part of the market (Pliszka, 2008).

In addition to foreign leaders, Polish companies based on small capital have also developed. Their path to being in the industry was much more difficult, but they built the infrastructure and brand recognition with endurance. This allowed them to grow enough to become the best players in the industry (Kawa, 2011; Lorenc, Szkoła, 2015).

By the end of 2014, officially completed the acquisition of all shares of Siódemka by DPD Polska. Both companies are at the forefront of courier services, so DPD will take over 20% of the market through this transaction. Such a large scale allowed them to increase their capabilities and combine the strengths of both companies. The use of modern IT solutions and experience of Siódemka, networks and infrastructure DPD will gain a competitive advantage and increase the quality of services.

In smaller organizations, working from a dozen to several dozen employees. These companies mainly offer services in local and national services, and they also have low transport potential. Some of them, thanks to cooperation with larger companies, also carry out international shipments. These companies are much more than the previous ones, as can be mentioned here: X-Press Couriers, Agap, Victorio, Transervis, and Koliber Express. The last group is small entities that provide courier services exclusively at local level. Their means of transport mostly include bicycles, motorcycles and scooters. This idea thrives mainly in large Polish cities, which are usually impassable during peak hours. The local service is designed to transport a package (usually documents) within a single city in the shortest possible time. This last stage is particularly important – it attracted the attention of companies such as Amazon and DP at Warehouse Management Symposium in Warsaw in 2016. Price of delivery is dependent on the required time of delivery and distance between the sender and the recipient. Companies implementing such services are: Maraton (Poznań), Bike Post (Warszawa), Kurierzy Rowerowi (Katowice), Błyskawica (Gdańsk).

The advantage of small, local courier companies is a very good knowledge of the market and an individual approach to the customer. They have a much greater ability to adapt to customer needs and market needs. This allows the customer to feel comfortable and does not always carry a higher price compared to the leader in the field (Lendzion, 2013).

Evaluation of cooperation with companies in the TSL industry

Adequate treatment of value creation networks, including those focused on market needs, has a significant impact on customer value creation and builds a competitive advantage for the company. Managing a value-creation system while respecting the principles of logistic thinking and action is the main task of operational management. The formation of this logistic system is, on the other hand, a crucial issue of integrated strategic at a higher level of management.

The popularity of individual carriers among individual and business customers is shown in Figure 1 (Dyczkowska, 2005).

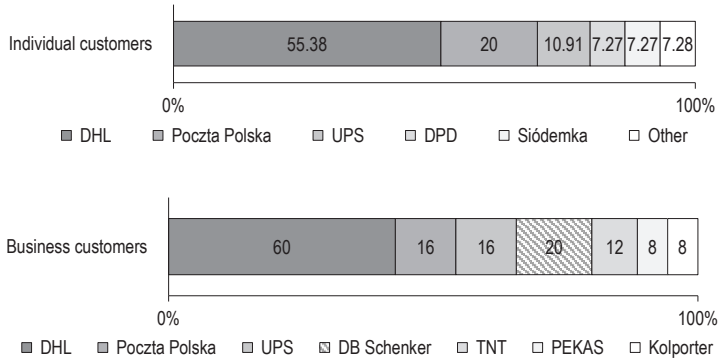


Figure 1. The popularity of courier companies among individual and business customers

Source: Dyczkowska (2005).

The diagrams shown in Figure 1 show that DHL is the most popular carrier for both individual and business customers. Individual customers benefit from the services of a much narrower group of carriers. This is due to the fact that almost 80% of them send only parcels and other consignments are small one. The second one is Poczta Polska, 20% of respondents use it, and the other companies (UPS, DPD and others) are much less popular. Once again, the business looks the opposite of business customers. In addition to the leader, i.e. DHL, institutional clients benefit from the services of DB Schenker (20%), UPS (16%), Poczta Polska (16%) and TNT (12%). 8% of respondents in this group entrusts the conveyance of the company Pekas and Kolporter. In companies 88% of cargo is small, 12% is parcel and 4% is partial or documents (Rutkowski, 2011), (Cichosz, Nowicka, Pluta-Zaremba, 2011).

Another aspect taken into account are the criteria for selecting the carrier, which are presented in Table 1.

Table 1. Criteria for choosing a transport company by individual and institutional clients (%)

TSL selection criteria	Individual customers	Business customers
Costs	76	84
Reliability	49	56
Convenience	40	44
Flexibility of action	20	32
Good communication	38	44
Company size	5	4
Other	5	0

Source: Dyczkowska (2005).

The most important feature, according to which the carrier chooses more than 76% of individual customers and 84% of institutional clients is the cost of the service. The second important feature is reliability and timeliness,

half of respondents from both groups indicate that they are important in the choice of transport. Another important thing for customers is convenience, defined as the realization by one transport company of the transport of different types of goods (parcels, general cargo, etc.). Another criterion is the flexibility of operation and execution of custom orders, 20% of individual customers and 32% of companies pay attention to this. The respondents are also not indifferent to good contact and cooperation with the transport company. More than 38% of individuals and 44% of organizations think that customer service is crucial when choosing the right carrier.

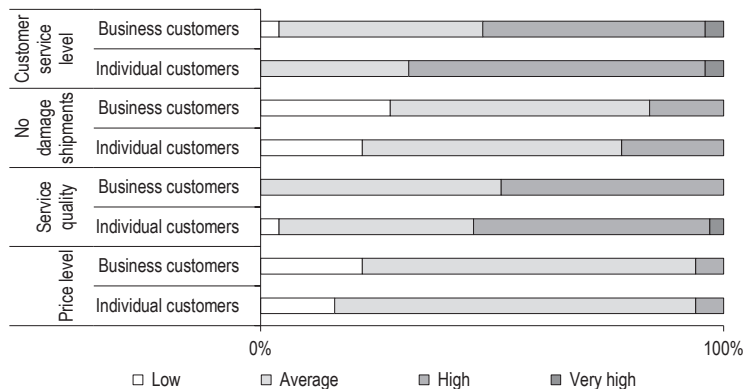


Figure 2. The rating criteria for individual and business customers

Source: Dyczkowska (2005).

Market research shows that when selecting a transport operator, the customer points to three main features: cost, timeliness and quality. The scale of the phenomenon is so much larger among companies that they better assess the timeliness of shipments and their safety (carriage of parcels in undamaged condition). For both groups, customer service is equally important. By analyzing more in detail, institutional clients rate it at a much higher level than individual clients (Figure 2). It is also related to the fact that the first group cooperates with carriers very often. In addition, organizations pay close attention to the convenience and flexibility of logistic operators. Treating the customer as an individual and adapt to their needs can help the client to use the services he offers. Increased access to information, the ability to compare offers, increased customer demand for the range of services, and a large number of carriers on the market mean that logistics operators must constantly focus on building a competitive advantage.

Efficiency of logistic customer service on the example of a local company in Cracow

X-press Couriers is the main local express delivery company in Cracow. X-press Couriers was founded in 1996. Initially it was called X-press Bikers. The name refers to the service that launched its existence on the market, that is, the execution of express orders of local bicycle transport in Warsaw. The company was one of the first bicycle couriers used performance in one of the most congested cities in Europe.

The first years of the activity were aimed at the expansion of centers in other Polish cities. In 2008, it had branches in cities like Warsaw, Cracow, Wroclaw, Szczecin, Poznań and Łódź. The company built its position on the local services market, but with the consequence the company expanded its operations to execute orders throughout Poland and in 230 countries around the world ("X-press," 2017). X-press Couriers employs car and bicycle couriers, offers single and freight services, and works with industry leaders CEP.

In addition, the company is pursuing a strategy to develop a network of multi-functional customer service points. X-Store boutiques, usually located in large business centers, provide postal and courier services (including the proper preparation of shipments for transport).

Logistics customer service is a key element that gives the company a competitive advantage. Ability to adapt to the needs and expectations of customers, translates into trust and builds good relationships with the buyer. The Local Services Segment allows you to adapt to the following requirements:

- readiness to receive,
- service time,
- shipment size,
- price,
- payment method,
- additional services (insurance, acknowledgment of receipt).

In Cracow branch local services are implemented in four basic services:

- Pośpiech (L PS) – service time from the time of placing an order is 5 hours,
- X-press (L XP) – service time since the order is 2 hours,
- Premium (L PREM) – direct course, the service time from the time the order is placed is an hour,
- Wojewódzki X-press (W XP) – service time from the time of placing an order is 3 hours.

In Warsaw local services are implemented on completely different principles, however, due to affiliation to the network courses made for customers in other cities in Warsaw are performed on the service New X-press (L NXP) – delivery time from the order is 3 hours.

Cracow is divided into three zones, urban and provincial zone (within which the service is performed Wojewódzki X-press). The price of the service varies depending on the delivery address, size, and delivery time. The whole decision-making process begins at the time the order is placed by the customer and often it is the customer's decision that the service will be delivered on time. Dispatcher to assign the driver to the appropriate order must take into account:

- the place of origin and of delivery,
- weight of shipment,
- dimensions of shipment,
- readiness to receive,
- order execution time (customer service declared by the customer),
- traffic,
- the amount of work a courier must carry out,
- route optimization,
- atmospheric conditions.

The key factor influencing the efficiency of logistic customer service is timely. Therefore, the accompanying statistics derived from the Krakow branch of X-press Couriers, will examine their effectiveness in the implementation of courses in the city and surrounding area. The obtained data allow also noted that orders for local service Lokalny Pośpiech are usually in the morning (between 8:00–11:00). This shows that customers depends on delivery during normal business hours (until the end of the working day). Local X-press services are most popular in the afternoon when delivery is required on the same day, and time is limited. Local Premium, as the fastest service that works best on urgent matters without any delay.

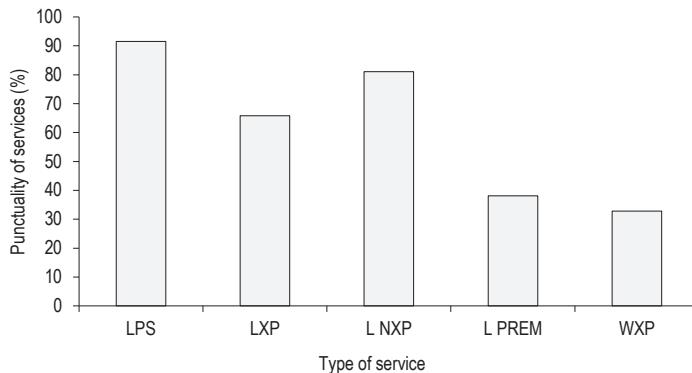


Figure 3. Punctuality by type of services

Source: own elaboration.

Figure 3 shows the timeliness of individual sites in 2014. It is easy to see that the branch complies with the timeliness of Cracow on a very different level. The service that has proven to be the most popular also enjoys the highest level of punctuality. More than 91% of courses are performed according to the time of service. At the same high level courses are offered at the New Xpress press center. Local X-press, a service performed in two hours, is performed on time in 65.8%. However, only one third course in Local Premium or Provincial X-press is delivered on time.

Figure 4 shows the number of services delivered on time. The bar chart shows the exact number of them in each month. It can be seen that the first half of the year was filled with the highest number of delays (in the first four months the average remained around 50 courses, i.e. about 20% of all courses). The second half of the year was much more effective for the division, excluding December, which in the CEP industry is one of the heaviest periods of the year. During the holiday season, the Warsaw branch completely suspends local services and other branches try to realize them as far as possible.

The share of delayed deliveries for all realized rates for a given month does not exceed 20%. Here, you can notice the difference between the first and the second half of the year. Holiday months, July and August, are so-called “downtime periods” for the courier service. This reflects the number of courses completed in this period. It does not drastically decrease, but with this scale already a dozen orders less impact on the formation of statistics.

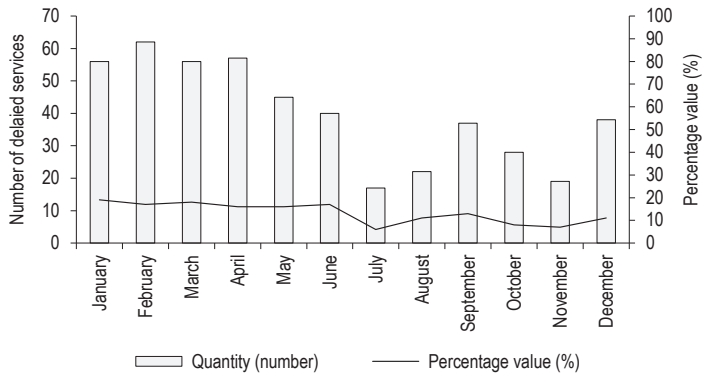


Figure 4. Delayed courses in individual months, numerical values and percentages

Source: own elaboration.

Another element of the assessment of the effectiveness of customer service logistics are complaints. The main cause of complaints are service delays and thus customer dissatisfaction. According to statistics provided by the Cracow branch, only 5 complaints concerning local courses were recorded.

Further data shows how timely delivery of guaranteed services. X-press and Super X-press, 89.7% of domestic shipments sent on X-press are delivered on time, while Super Xpress has 99.8% punctuality. Super X-press service is the most expensive domestic service offered by the company and its delivery time is firmly kept.

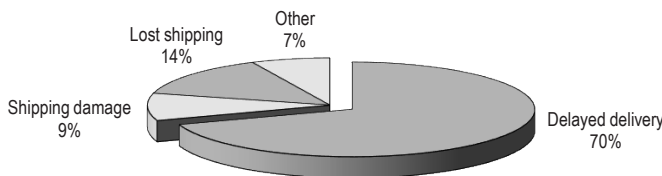


Figure 5. Reasons for submitting complaints by clients

Source: own elaboration.

The main reason for the dissatisfaction of contractors was delays in delivery. Almost 70% of the complaints concerned services not delivered on time. Two other reasons are: loss or damage to the shipment by the carrier. The first one complained to 14% of customers and to damage 9.3%. 7% of complaints concern the mistakes of own office workers or couriers. Here you can include, for example, shipments sent to an address different from those listed on the consignment note or consignment.

Conclusions

In conclusion, the result of logistic customer service is the satisfaction of the recipient and his willingness to cooperate. The statistics provided by the X-press Couriers division of Krakow show that the level of punctuality of

their services is very diverse. The smallest number of delays in local services is the most common service, which is Lokalny Pośpiech, and their total number does not exceed 20% of all orders in a month. The national service is also at a high level. More than 90% of consignments shipped in the most popular standard service (non-guaranteed) are shipped within 24 hours, with X-press guaranteed delivery at 89.7% and Super X press 99.8%. However, the effectiveness of the customer service company is best illustrated by a small number of dissatisfied customers. In 2014, the company considered only 48 complaints, of which 5 concerned the local service and 43 were domestic ones. Thus, it can be deduced from this that some of the orders considered here as “untimely” were executed over a longer period than the service provided in agreement with the customer/payer. However, such arrangements cannot be illustrated in figures.

Acknowledgments

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BREACHING THE PRINCIPLES OF CORPORATE SOCIAL RESPONSIBILITY AND RULES OF THE SHARING ECONOMY IN THE PASSENGER TRANSPORT SERVICES MARKET

JUSTYNA ŁAPIŃSKA,¹ JAROSŁAW WOJTAS,² MAURZYCY GRASZEWICZ³

¹ Nicolaus Copernicus University in Toruń, POLAND
e-mail: justlap@umk.pl

² Nicolaus Copernicus University in Toruń, POLAND
e-mail: j.wojtas@doktorant.umk.pl

³ SWPS University of Social Sciences and Humanities, POLAND
e-mail: mgraszewicz1@swps.edu.pl

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ABSTRACT

The purpose of this paper is to analyse and evaluate business activities of the Uber company which declares itself as a sharing economy subject. The analysis is performed in the context of compliance with the principles of Corporate Social Responsibility (CSR), and the rules that should be followed by economic subjects operating under the sharing economy. Uber matches people who want to offer a transportation service with people who want to use this service. For this purpose, the company uses online applications. On the passenger transport market, it creates very serious competition for taxi corporations. The research carried out shows that the company has seriously violated the principles of CSR and the rules that should apply to subjects of the shared economy. Uber has enabled them to bypass tax regulations, passenger safety regulations and labour standards.

Introduction

The development of the Internet, new technologies and social media has contributed to the dynamic development of the so-called new economy, which is based on sharing. The sharing economy is also referred to in the literature as a peer-to-peer, mesh, or collaborative economy. It is a system built around the distribution of human and material resources, including the joint creation, production, distribution and consumption of goods

and services by people and organizations. It includes both disinterested sharing of goods as well as renting out the possessed goods or resources (Banaszek, 2016). The positive consequences of the activity that, is part of the economy of sharing have been recognized by the European Commission. It has given its go-ahead to the issue of the development of collaborative consumption.

The concept of the sharing economy is incorporated into the idea of sustainable development, which aims to achieve a model of the exploitation of natural resources, investment and the creation of technology that will increase the economic, natural and social foundations of the needs of the present and future generations. (Czech, 2014, Łapińska, Huterska, Łapiński, 2017). The concept of corporate social responsibility is a systematic response to the challenges of sustainable development. The concept of CSR is considered to be an autonomous development model, useful in solving social, economic and environmental problems (Ziółkowski, 2012; Huterska, 2017).

The objective of the study, material and method

The purpose of this study is to analyse and evaluate business activities of the Uber company that declares its operation within the sharing economy system, in the context of compliance with the Corporate Social Responsibility (CSR) catalogue of principles, and the rules that should be followed by entities operating under the sharing economy. This article briefly outlines the origins and functioning of the Uber platform. It also presents its relationships with the environment. The major methods employed in the study are the case study method, descriptive analysis as well as institutional and legal analysis. Secondary sources of information such as PricewaterhouseCoopers reports, the UOKiK's (the Office of Competition and Consumer Protection) stance and deputies' questions were used. The source collection also includes press materials, since studies on entities operating under the sharing economy in Poland are novel and have not been satisfactorily presented in the subject literature yet.

The concepts of sustainable development and social responsibility and the development of the sharing economy – selected theoretical aspects

Changes in the environment, consisting in increasing the number of threats that have been the result of civilization progress, have contributed significantly to the emergence of the concept of sustainable development. This concept emphasizes that development should lead to meeting the needs of present generations without endangering the needs of future generations (World Commission on Environment and Development, 1991). This concept emphasizes the non-economic aspects of the functioning of enterprises and above all environmental protection and the quality of life of society. These are values that fit in with the general well-being of society.

The emergence of a sustainable development concept, the implementation of which in the face of the dangers of civilization development has become a necessity, undoubtedly, contributed to the development of the concept of corporate social responsibility. H.R. Bowen (1953), who is recognized as the father of CSR, defined the social responsibility of entrepreneurs as the duty of policymaking, decision-making and the realization of activities that are in line with social expectations. Corporate Social Responsibility is also defined by the World Business Council for Sustainable Development, according to which, it is a continuous commitment of business to ethical behaviour and to contributing to sustainable economic development by improving the quality of life for workers and their families as well as the local community and society as a whole (*World Business Council for Sustainable Development*, 1998). The subject literature (see, for example, Julewicz, Ejdyś, 2009; Huterska, Huterski, 2014) emphasizes that,

in relation to sustainable development, a socially responsible company should ensure a balance between activities aimed at the achievement of economic, social, and environmental purposes.

The essence of social responsibility also includes the ISO 26000, *Social Responsibility Guidelines* (ISO 26000, 2010), which defines it as the organization's responsibility for the impact of its decisions and actions on society and the environment. This responsibility is a transparent and ethical behaviour that contributes to sustainable development including prosperity and public health.

The ISO 26000 standard also refers to several important principles of social responsibility that should be respected by companies operating under the concept of CSR, *i.e.*, liability, transparency, ethics, respect for stakeholder rights, respect for the law, respect for international standards of conducting business activity as well as respect for human rights. Therefore, the concept of CSR emphasises the responsibility of business in relation to the broadly understood environment. In general, it emphasizes the influence of the organization's activities on improving the quality of life of society.

Despite the development of the CSR idea and the growing number of its supporters, there are also critical views of this concept. Authors expressing critical opinions on the concept (Doane, 2005; Doda, 2015) highlight also the cost aspects related to undertaking socially responsible actions, the lack of genuine motivation and sometimes even the lack of effects of these actions. They point out that quite frequently social responsibility is a tool that only enhances the image of the organization, and that society perceives it as diverting attention by 'socially responsible' companies from other, more serious problems (Roszkowska, 2011). As a result, many authors (Grzybowski, 2004; Goel, Ramanathan, 2014) emphasize that corporate social responsibility is a philosophy of profit making and cannot be looked at as a tool for building the desired image.

The subject literature (see, for instance, Griffin, 2004; Wolska, 2015) emphasises that organizations may exhibit varying degrees of involvement in social responsibility issues, from a complete lack of interest in activities that contribute to solving social or environmental problems to highly active attitudes of seeking opportunities to contribute to the creation of social good.

The most desirable active attitude is not only conscious acceptance of the organization's responsibility for the consequences of its decisions and actions, but also the inclusion of social issues in the strategy-building process. As rightly highlighted by Ślęzak-Gładzik (2013), to fully utilize the concept of CSR in practice, it is necessary to change the mindset and replace individual actions referred to as CSR with a comprehensive approach to social responsibility. What counts in responsible business is a strategic and long-term approach based on the principles of social dialogue and the search for good solutions for all (Rok, 2012).

To a certain extent, the concept of the sharing economy is embedded in the concept of sustainable development and social responsibility. It involves matching people (via online platforms) to enable them to provide services or share resources, time, skills or capital without transferring ownership rights. The essence of this phenomenon is the ability of private individuals to use their resources – mainly real estate and vehicles – to compete with traditional entrepreneurs. Thus, a relatively large number of prosumer groups *i.e.*, consumers and producers combined, have emerged that have access to an extremely wide audience (PricewaterhouseCoopers, 2016).

The objective of the sharing economy is to use resources in the most effective way with the assumption of reducing social and environmental costs (Rifkin, 2016). This concerns, in particular, passenger transport, as the use of motor vehicles is highly inefficient nowadays. Shared use of vehicles significantly increases this efficiency and improves the quality of life in urban centres where parking spaces are scarce. It is also worth noting that some

positive aspects result from the sheer fact of matching strangers. This contributes to an increase in trust that, though difficult to estimate, is an essential aspect of social life.

Causes of the controversy around the Uber company

Uber was created as an internet platform. Its purpose was to communicate self-employed persons using their own vehicles during their free time to provide passenger transport services with customers. For this purpose, an application to be used in computers and mobile devices was developed. The company operates in more than 330 cities in the world and is valued at 51 billion USD. It also offers its services in Poland, among others in Warsaw, Cracow, Wrocław, Silesia and the Tricity. The company started to operate on the Polish passenger transport services market in 2014. From the very beginning of its functioning, it has been causing controversy. Because of its controversial and often illegal practices, it has already been banned in several European cities such as, for instance, Berlin (Kell, Smith, 2014) or Barcelona (Mount, 2014). Spain, Belgium, and France have banned the internet application, and bringing it back is dependent on compliance with the national legislations.

In Poland, the reluctance and often hostile reactions to drivers cooperating with the company and providing services identical to the decades-old taxi corporations have been triggered not by the competition itself, but by the unregulated business practices that favoured entities operating under the shared economy.

Controversy was also aroused by the fact that the Polish branch office was registered in the Netherlands. Competitors argue that the choice was made to exploit the loopholes in the tax legislation and to abuse the existing favourable conditions for e-economy entities (Polska Agencja Prasowa, 2017). These practices have led to a conviction that the business owners intend to dominate the passenger transport market by means of wage dumping. This is done on the basis of unfair competition and with the aim of eliminating, in this case, weaker entities but complying with the applicable regulations. Similar practices have already taken place in Spain and France as well as in the USA.

Uber is characterized by a specific business model. Significant is the fact that drivers are not hired by the company, so they are not its employees. They only sign a civil law contract for the use of an application that only mediates between the driver and the customer. Uber drivers carry out their work without a license for transport services, without additional passenger insurance, without cash registers and other restrictions imposed on drivers affiliated to taxi corporations. The facts presented undoubtedly undermine the CSR principles. Moreover, arguments are raised that the Polish law regulations are being violated. As a result, taxi drivers make civic arrests, which they believe to be right. There were reported even some cases of violent attacks on Uber drivers (Szulc, 2017).

The uberisation process

The phenomenon of making the rules of cooperation more flexible and transferring responsibility for the service performed from the employer to the employee is not in compliance with the CSR principles. In the context of Uber's operations, such practices have even been named as 'uberisation' (Nurvala, 2015). Uber is very selective about applying the principles of the shared economy, while enjoying the positive atmosphere that accompanies its development.

The fact of the misuse of the principles of the shared economy has already been debated by parliamentarians who had been alerted by taxi corporations and Uber adversaries. Taxi corporations and Uber adversaries were supported by representatives of almost all political options of the Polish Parliament. Interpellation no. 10,362 filed

by MP Piotr Marzec got much media coverage due to its substantive content. "Uber is trying to promote itself as an alternative to taxi services, based on the so-called sharing economy (...) the phenomenon covering both rendering direct services as well as sharing, co-creating, co-producing, buying jointly based on the human tendency to cooperate, help others and share their time and resources, which is reciprocated in a variety of ways" (Marzec, 2017). The above-mentioned aspects of the shared economy clearly emphasize the characteristics of its subjects. The objective is providing services, not compensation for intermediation. The author also wrote that: "Contrary to the principles of the shared economy characterized by the lack of payment and the provision of services on the basis of companionship or exchange of services or mutual courtesy, each passenger transport service performed by Uber using its associated drivers incurs a fare that is automatically collected from the passenger's credit card" (Marzec, 2017). The interpellation rightly pointed to the need to pay a fare, which is against the non-profit principle. It is quite different, for instance, from the *BlaBlaCar* platform¹ which clearly defines the costs borne jointly by the vehicle owner and the passenger which depend on the parameters and possibly on the place where the order was made. The *BlaBlaCar* driver may waive the charge, Uber always charges the customer directly.

Due to the protests taking place in several Polish cities, the media have started a debate on the ubersiation of work. An opinion expressed by one of the journalists can be deemed to be the right conclusion on this ongoing debate: "Undoubtedly, taxi drivers are fighting against a corporation that uses wage dumping. But they are also fighting against the practice of avoiding paying taxes and lowering the standards of work in our country. (...) In theory, this is an exchange of services between people, but behind this venture is a large corporation that is taking profits. Drivers have to share their earned money with Uber only due to the fact that they use its application" (Syska, 2017).

Among the many emotional arguments that have gained much media coverage, those presented by Syska (2017) are the substance of the allegations against the company. They emphasise the issue of Uber drivers who have often come from Ukraine for work purposes and perform work under civil law contracts below the mandatory minimum hourly rate used in Poland. The practice of exploiting the difficult situation of economic immigrants is extremely controversial and certainly unethical. Their long hours work also translates into the number of traffic accidents caused by them.

Conclusion

The sharing economy is a combination of individuals and legal entities through online platforms in a way to enable them to provide services or to share assets, resources, time, skills, or capital. This is generally done in a limited time and always without transfer of ownership. As a part of the sharing economy, passenger transport services are developing very well, thus contributing to a significantly more efficient use of passenger cars. The Uber company can be classified as an economic subject that operates under the sharing economy. The company matches those who want to offer transport services with people who want to use the service. The aim of the paper was to analyse Uber's business activity in the context of the compliance with the principles of CSR and the practice of the sharing economy. The study carried out shows that the Uber company has seriously violated these principles. Through the implementation of its Internet platform, it has enabled service performers to avoid taxes, regulations

¹ BlaBlaCar is a French-based online platform for communicating drivers who provide free seats in their cars in exchange for fuel costs contributions.

on passenger safety and standards of work. Also, it has caused social unrest and led to protests that paralysed the largest Polish cities. Moreover, Uber has breached the Polish law and ethical standards.

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PROBLEMS OF YACHT CHARTER COMPANIES IN POLAND

ALEKSANDRA ŁAPKO

Maritime University of Szczecin, POLAND
e-mail: a.lapko@am.szczecin.pl

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ABSTRACT

There are more and more people interested in nautical tourism in Poland the consequence of which is the growing demand for charter services. Their development is important for the Polish tourism economy, but, similarly to the other attractions related to sailing tourism, they are rarely the subject of scientific research. The main purpose of the article is to diagnose the basic problems faced by charterers operating in Poland. In addition, the aim was also to organize and enrich the available terminology relating to the operation of chartering companies in order to partially fill the existing gap in this area.

The first part of this article presents the specificity of charter services, basic concepts related to charter activity and the classification of charterers' companies.

Additionally it shows a list of major companies along with the characteristics of the areas they operate in.

The further part includes the diagnosis and discussion of the basic problems faced by these companies based on questionnaire survey conducted in May 2017 among experts – managers of charter companies. It was found that these problems result from the existing legislation, high competition, rising operating costs, poor infrastructure of yacht ports and the seasonality of nautical tourism. Therefore, these problems are difficult to be solved and can only be reduced by adopting a proper operating policy.

Introduction

The main purpose of the article is to present the specificity of the functioning of yacht charter companies in Poland and to identify and discuss the main problems faced by these companies.

The research is based on questionnaire survey among experts, documentation, literature and online resources analysis and observation.

The subject discussed is crucial for the development of nautical tourism. Nevertheless, it is extremely rare in the Polish and foreign scientific literature. In Poland issues related to charter yachts are discussed by M. Nowacki (2013), focusing on factors of quality. In turn, L. Butowski (2010) mentions charter services as one of the criteria used to benchmark the waters for nautical tourism. In a similar context, the topic is addressed by Croatian scientists, including T. Luković (2015, 2012), P. Cavo, A. Mrcel, H. Baricević (2010) or M. Uran and D. Gračan (2005). In their works charter services are listed as one of the determinants of the development of nautical tourism. It should be noted that nautical tourism in Croatia is considered to be an important element of the maritime sector and the leading type of tourism. The largest share in Croatian nautical tourism revenues in 2015 belonged to charter and berth services. In total they generated about 68.9% of revenue, which is close to 70 million euros (mppi.hr). Moreover, A. Alcover, M. Alemany and M. Jacob (2011) refer to the importance of the charter market for the Spanish economy. There is, however, no scientific study on the specific nature of charter companies.

Basic information on the functioning of charter companies in Poland

Yacht charter means to hire it for a certain period of time in order to organize the cruise. In nautical tourism there are three types of charters: bareboat, skippered and crewed (Jennings, 2003). In the case of bareboat charter, the charterer hires only the yacht for a certain price. Skippered charter includes also a person with the appropriate license – a skipper. Crewed charter consists of hiring a boat with full crew – not only a skipper, but also a cook or officers operating sails and maneuvering.

Charter is one of the most popular ways to enjoy yacht cruising. It is estimated that as many as 75% of sailing yachts on the Croatian waters are chartered yachts (Gracan, Gregoric, Martinic, 2016). Spain also experiences increasing charter revenues (Payeras et al., 2011). This is a solution that avoids the many costs associated with owning a yacht – in particular, the cost of its purchase, but also berth, insurance, preparation for the season, launch and slip, servicing and repair. In addition, it gives the possibility to choose the vessel that fits the water and the nature of the cruise. For example, for lakes with a large number of shoals a charterer may choose a keel yacht, and for the sea – a typical sea yacht with large draught but safe construction.

It is also very important for the cruise to be launched at any port, which sometimes determines sailing on given water and provides the most efficient use of time spent for resting. Yacht charter also allows choosing the vessel in terms of the number and skills of people taking part in the cruise.

Figure 1 shows the types of charter companies divided by different criteria. Certainly, the criteria may be multiplied and a few other types of businesses may be selected, e.g. their size, the number of employees, or the service areas (inland or sea). Moreover, unambiguous classification of a company and its assignment to a single group is usually not possible. Therefore, it should be noted that the presented classification is only indicative and does not exhaust all possibilities. In addition, the types of companies show a large variety within their own types. For example, private companies include large companies with several hundred yachts, as well as individual business operators with one yacht that is occasionally chartered to individuals (so-called individual charter).

As far as domestic charter companies are concerned, their location is usually determined by the presence of appropriate tourist attractions for sailing, i.e. water bodies with appropriate parameters and development. Hence, the regions with the biggest number of charter companies in Poland include: the Great Masurian Lakes, the Baltic Coast, the Vistula Lagoon and the Żuławy Loop and the Szczecin Lagoon Area.

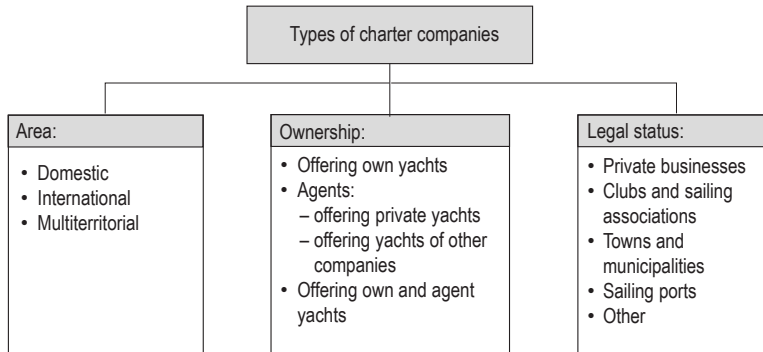


Figure 1. Types of yacht charter companies operating in the Polish market

Source: own study.

The number of yacht charter companies listed in the regions is presented in Table 1. However, the figures presented should be considered as indicative. There is no general database of this type of companies (except for the Great Masurian Lakes and the internet portal www.mazury.info.pl), so their number was established on the basis of research of online resources and specialized literature. Some of the operators offer charters in different regions and they have been presented in the table several times. The list includes companies that mainly offer sailing yachts. In the area of the Żuławy Loop and the Vistula Lagoon there are a lot of companies offering hiring of motor yachts and barges, which were not included in Table 1.

Table 1. Number of yacht charter companies in a given region

Region	Baltic Coast	Żuławy Loop and the Vistula Lagoon	Szczecin Lagoon Area	Great Masurian Lakes
Number of charter companies	48	11	15	106

Source: own study based on online and trade literature resources.

As shown in Table 1, the biggest number of yacht charter companies are located in the area of the Great Masurian Lakes. In this region there are twice as much companies as those operating in the Baltic Coast region, although the entities from both the West Pomeranian and Pomeranian provinces were taken into account. It is worth mentioning that on 7 July 2017, when this research was conducted, more than 270 individual charters were also available in the Great Masurian Lakes region. The Great Masurian Lakes are still the most popular sailing destination in Poland. According to the report of the Polish Sailing Market, as many as 58% of Polish sailors declare to be cruising in this region (Raport: *Polski rynek żeglarski*, 2016). Estimates show that there are approximately 1200 yachts in the area offered for permanent hiring (Kulczyk, Derek, Woźniak, 2016).

The offer of existing companies is very diverse. The entities listed in Table 1 offer from 1 to over 100 vessels. The offered yachts vary in type, age, standard, equipment and size. The offer includes both long-term yachts for demanding customers as well as very luxurious vessels for tourists, who primarily focus on comfort. The advantage

of the company is to have at its disposal at least several yachts of one type. This allows to organize regattas, where all participants have equal chances. These types of regattas are often indispensable elements of integration cruises organized for employees by different enterprises.

In Poland, companies offering charter services have to deal with seasonality. The sailing season lasts from the beginning of May to the end of October, which means that for half a year they cannot count on yacht hiring. The season itself is also characterized by fluctuations in demand. This is reflected in the calculation of charters rates. Typically, the season is divided into periods where the same vessel is subject to different rates. In the case of large professional companies there may be several periods like that (ahoj.pl, atsea.pl, balticayachts.pl, stratusczarter.eu). Smaller companies usually have two-three rate periods or offer yachts for a fixed rate (zagle.jmaster.pl, kliper.net.pl). The highest rates apply during the so-called long weekends, sailing events and in July.

Yachts are usually chartered for one week. Shorter charters usually mean the necessity to pay extra payment. To reduce the effects of the seasonality the companies offer a discount system by lowering prices on reservations made before the season – the so-called first minute reservations.

Unfortunately, the climate in Poland does not guarantee proper conditions for sailing even during the high season. Rain, low temperatures and strong winds can drastically reduce the number of people willing to cruise and are often a reason to cancel reservations. In such cases, the only revenue for charter companies are advance payments made on reservation.

Problems related to running a yacht charter company in Poland – research results

For the purpose of this article representatives of the 7 charter companies were interviewed with the use of the questionnaire. Five of the surveyed companies offered charters in the Great Masurian Lakes region, the other two in the Baltic Sea region. The number of yachts in the offer ranged from 3 to 50. The companies have been operating in the market from 5 to 25 years.

Representatives of the companies participating in the interview were asked to indicate the basic problems they face every day. These problems included:

- high competition,
- increased operating costs,
- poor infrastructure of marinas,
- gray market,
- short periods of weather favorable to sailing,
- low level of sailors' skills.

High competition is a problem pointed out by all companies operating in the Great Masurian Lakes region. Company representatives believe that its cause is the easiness to obtain EU subsidies to finance the purchase of yachts. The wide range of charters available on the charter market forces them to set rates at a profit margin.

The operation of charter companies strongly depends on the existing yacht ports in the region – the scope and prices of their services and infrastructure. In recent years, many investment projects related to the modernization and construction of new yacht ports have been completed in Poland (e.g. the Żuławy Loop, West Pomeranian Sailing Route). Still, however, many facilities do not meet the growing demands of customers, and their poor equipment and poor quality of service make sailors choose other areas.

Moreover, prices for port services translate directly into the operation of yacht charter companies. There is a lot of concern among the respondents in relation to the new Water Law Act prepared by the Ministry of the Environment. Under this law, port owners shall be taxed on land under water. After the protests of the sailing community, this tax is expected to be ten times lower than planned (zagle.se.pl). However, it may still cause them to raise prices for berths. This law will significantly reduce the attractiveness of nautical tourism in Poland. Changes to the existing regulations means that charter companies will be obliged to pay more for their fleet in the port and therefore lose the customers.

The problem for yacht charter companies is the phenomenon of the so-called gray market (Covo et.al, 2010). It is based on the fact that companies operating in the gray market pay no taxes but offer yachts to tourists at very low prices. Meanwhile, the price for many people is the basic criterion for choosing the company (Nowacki, 2013). In that case, offers of entities acting legally cannot be competitive. The operation of charter companies is also adversely affected by private yacht owners, who share their vessels with friends or strangers by charging them very little or even offering them for free.

Another problem for the functioning of charter companies is the climate in Poland and consequently a short sailing season. The uncertainty of the weather makes customers reluctant to charter yachts even though companies are trying to encourage customers to reserve them at lower prices for pre-season contracts. As the research shows, most often they make reservations in the months of May and June (39%) – already in the season. About 20% of customers make reservations in March and April and only 7% in January and February. A lot of customers are waiting to make reservations until the last moment, when it is possible to predict the weather with high probability. Still, however, complaints reported by customers most often concern the weather conditions during the charter period (66%).

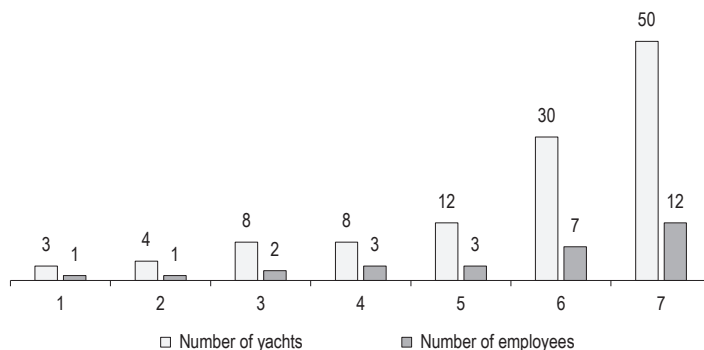


Figure 2. Relationship between the number of yachts owned and the number of employees in charter companies

Source: own study.

The seasonality of charter services also forces seasonality of employment. Figure 2 shows the number of employees in each company and the number of yachts owned by them. According to the data presented, the companies employ on average one person per 3–4 yachts. In companies employing more than 2 employees an

average of 2/3 of the employees were employed in the high season. In a company employing 2 employees, only one person was employed on the basis of the contract for an indefinite time.

Seasonal employment provides the opportunity to reduce staff costs, but often generates problems in attracting people to work because they are usually employed based on mandate contracts (Echaust, 2009).

In addition to formalities (contract preparation, payment services), employees are required to hand over and receive yachts (equipment inspection, crew training), prepare the vessel (cleaning, repairs, retrofitting), transport crew to/from port. If the company offers crewed charter the staff duty is sometimes also to operate the vessel. The scope of duties is quite wide and the person is usually the only one representative of the company that the customer meets. Therefore, this person's attitude and skill translates itself into the satisfaction of the customer. Therefore, finding suitable employees can be a huge problem for companies.

The last problem indicated by the respondents is the low skill level of the sailors. This is largely due to the liberalization of regulations that has been taking place in recent years. According to the currently applicable sailing regulations (Rozporządzenie Ministra Sportu i Turystyki, 2013), yachts with length of up to 7.5 m can be used without license. These are large sailing yachts, many of which are used on Polish lakes that can take 4–6 sailors on board.

This regulation makes it possible for yachts to be hired by people without the proper skills to operate them. The short standard training provided by the charter companies when handing over the yacht does not replace the sailing course. Many yachts are damaged especially when the crew sails on shoals or during maneuvers in ports. Major breakdowns stop yachts from operating for repair and increase insurance rates, which adversely affects the company's income. In recent years, regulations regarding sailing standards and related skills have changed several times. High dynamics of changes in this area disorganized the functioning of companies conducting sailing trainings and also caused confusion among those who already had sailing licenses and had to exchange them. This was widely discussed among the sailors. Most likely, in the near future, no changes are to be applied in this area. Chartered companies can only introduce internal regulations, which may include entries that a sailing license is required regardless of the size of the yacht.

Conclusions

The purpose of the article was to diagnose problems faced by yacht chartering companies operating in Poland based on a questionnaire carried out among experts – persons running charter companies and market observation. On the basis of the answers received, it was found that the activity is hindered by high competition (often unfair, e.g. illegal charters) and increasing costs resulting, among others, from existing legislation. An additional difficulty is the high dependence on yacht ports. The poor condition of yacht port infrastructure in a given region makes sailors reluctant to visit those places, thus leading to little demand for charter services. The climate in Poland is also not conducive to charter activities. The season is short and even during the so-called high season, the weather is not always favorable to sailing. This entails the need to employ seasonal workers, which often affects the quality of their work. In addition, there is a high uncertainty of demand that hinders business planning. The last of these problems is the decline in the skills of sailors, which results from the progressive liberalization of the regulations.

Unfortunately, the nature of these problems makes it difficult to find solutions that can positively affect the functioning of charterers in Poland. Companies can introduce internal regulations that allow limiting damage caused by incompetent sailors, but this may be difficult due to the high competition visible on the charter services market.

In order to maintain a proper position on the market, companies must ensure a high level of quality of services (good condition of yachts offered, a wide variety of offers, high level of customer service). However, it requires considerable financial outlay, and a high level of service additionally requires the training of personnel. This, in turn, hinders the high seasonality of nautical tourism and the resulting need to employ seasonal workers.

A positive phenomenon is the dynamic development of the yacht port infrastructure in Poland (e.g. Żuławy Loop, West Pomeranian Sailing Route), which contributes to the increase in the attractiveness of water bodies and causes an increase in the number of sailors, and thus the growing demand for charter services.

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MAJOR CHOICE DETERMINANTS. COMPARATIVE ANALYSIS OF THE PUBLIC MANAGEMENT MAJOR AT THE INSTITUTE OF PUBLIC AFFAIRS OF THE JAGIELLONIAN UNIVERSITY

MAŁGORZATA MARZEC

Jagiellonian University Department of Management and Social Communication Jagiellonian University, Institute of Public Affairs, POLAND
e-mail: malgorzata.marzec@uj.edu.pl

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ABSTRACT The main aim of this article is to present factors behind a choice of the academic major – management with the field of study – management in the public and non-governmental sector at the Institute of Public Affairs of the Jagiellonian University (IPA JU). The article presents motives which may be a basis of a decision on undertaking higher education at any major and at the major – management with the field of study – management in the public and non-governmental sector. An attempt was made to compare motives behind a choice of various majors. The following questions were asked: What motives are the students beginning higher education guided with? Do the students starting their education at the IPA JU have the same motives as students starting education at other majors? The article was written based on the literature review, widely available research and analyses of research carried out among students who began studies at the IPA JU in 2008–2016.

Introduction

The market for higher education educational services is very competitive. It is influenced by globalization, internationalization, but also by increasingly high demands and awareness of students. Universities should better understand the needs and expectations of their students. It is extremely important to build relationships between potential students and the university. In order to be able to establish relationships with potential students, the

decision-making process, which is followed by the candidates for studies, should be well recognized (Vrontis, Thrassou, Melanthiou, 2007, p. 987). Secondary school pupils who are about to take their school-leaving exams find it difficult to make decisions concerning a major which influence their future professional life. Applicants get information which is difficult to compare and check. It is worth noticing that some choices of majors are made under the influence of factors regardless a college. However, the knowledge of decision-making processes allows students to acquire, to shape the educational offer, to influence the market behavior of potential candidates for studies and to build relationships (Drapińska, 2010, p. 48). Secondary school students ask such and many others questions before they make a decision concerning selection of a college and major. Taking education-related decisions is a complex process based on multiple factors. These are: personality, cognitive, emotional determinants as well as economic and social factors (Jakubowska-Baranek, 2003). Some analyses indicate significance of such factors as: intellectual development, relevant training to perform a well-paid occupation, raising a social status through a university diploma, extending interests (Jarecki, 2015). Setting general factors which are decisive for choosing majors with those which are significant for choosing a major at the IPA JU seems to be interesting. The paper applies results of the studies carried out by the Main Statistical Office and results of research carried out in cycles among students who begin their studies at the IPA JU.

Motives behind a decision on a major — analysis of literature and available Polish research

Raising competences, including broadening of knowledge, development of interests and acquisition of professional experience as well as shaping personality which can be useful in professional work should be the main aim of studying (Polańska, 2017, p. 134). Studies should be one of the elements of the educational path and training to perform professional work. Motives behind a decision concerning selection of a college and major depend on many variables. Variability of motives depends both on the future students' interests as well as assessment of prospective possibilities of finding a job after completion of a college. It is also related to knowledge, skills, abilities and plans for future. Taking educational decisions may be also shaped accidentally, depending on the parents' financial situation, place of living, influence of friends. Attractiveness of a particular major and a city where studies are held is also crucial. Students who start their education wish to spend their youth as interesting as possible. Acquisition of knowledge and qualification indispensable in the future professional work may not be as important. Higher education is not only fashionable but also necessary with regard to the requirements of the labour market. Unfortunately, for some people the aim of studying is not only acquisition of knowledge and skills but obtaining a document which is necessary to enter the job market (Walczak, 2017, pp. 157–160).

Education in a college enables raising competences which are identified also with qualifications, experience and personal features. We may find many definitions of competences in the subject literature. According to Oleksyn, competences should be defined as “education, experience and skills, talents and predispositions (other) psychophysical properties and a conduct expected from employers and important for a given occupation” (Oleksyn, 1997, p. 23). The discussed definition extensively defines competences, which the students may develop during studies.

Human conduct aims at adjustment to the environment (Franken, 2005) There are numerous theories of motivation. It is worth to indicate the following ones, i.e. a subject model, humanist model and cognitive model. The first model – the subject one indicates the meaning of a stimulus as a source of motivation. The second model – the humanist one, assumes that motivation is based on inner processes without participation of external factors.

External stimuli may only influence the conduct. The cognitive model emphasises formation of cognitive processes which may influence reactions. Psychologists claim that processing of information is the basis of motivation in action. A manner in which secondary school students process information influences behaviour with regard to major choice decisions. (Kucharski, Ligocka, 2012, pp. 45–47) Selection of the educational path and decision with this respect is a complex process. A personality, cognitive and emotional factors including social and material status are significant among the motives for such a decision. The young people who make a decision concerning a major take into account cognitive reasons which determine a practical aspect of the university degree. Decisions are made based on the perspective of finding a job on the market and are related to the social position. Studies do not have to be compliant with the interests but should ensure a good position on the job market through a well-paid job.

Interesting results of research concerning educational paths of Poles were presented in the study by the Main Statistical Office on *Selection of an educational path and professional situation of Poles from 2013 (Wybory..., 2013)*. Choice of a college is mainly influenced by the possibility of education in the expected profession/education profile and a suitable curriculum and high level of teaching. Availability of a college with regard to the place of living and suitable hours of classes is of less significance. The investigated people who make their decisions on the educational profile, focus mainly on the possibility of finding a job, additionally compliant with their interests. Possibility of finding any job and finding a well -paid job is of less significance. Raising competences or a possibility of promotion is also significant for the selection of the major (*Wybory..., 2013*, p. 80).

There are many studies which present how the educational decisions are made and analyses which describe motivations behind decisions taken by secondary school graduates. The most often – three dominating stages of the studies choice process can be distinguished, i.e. a stage related to selection of the educational path, stage of searching for information on possible choices and the stage of decision making.

In the first stage, secondary school students make a decision with regard to a specific educational path related to a given major. Here, social and economic factors, family circumstances, personality features of an applicant, specificity of the job market and employers' requirements are predominant. This stage is completely independent from the college itself. In this stage, young people indicate general preferences concerning the major, a school, where they can study, taking into consideration such factors as distance from the place of living, expected costs of studying. The second stage is related to searching for information concerning majors and colleges. In this stage young people actively or passively search for information on the variants of a decision. The third stage includes the process of decision making on a selection of one or several colleges and one or several majors. Here, great rationality of undertaken decisions, based on calculation of costs and advantages, is indicated. However, it is emphasised that rationality is limited with socio-economic factors or culture ones. The future path of a professional career and the level of remuneration and prestige are a basic criterion of choice (Pawlak, Grzesiuk, 2015, pp. 93–106).

Colleges may effectively influence the process of decision-making in its second and third stage. These schools may actively participate in transferring information on offered majors, rules of recruitment, conditions of studying, curricula. Based on the research by A.F. Cabrera and S.M. Nasa (2000, pp. 9–19) one may distinguish three basic groups of factors of a decision on the major and school. They include: 1) individual features, including professional aspirations and competences and skills of secondary school graduates; 2) environment, including socio-economic status and parents' support, 3) expectations concerning the school itself including quality – school's reputation, academic life (interesting youth), major choice possibility, distance from the place of living.

It is also worth emphasising that many researchers indicate also the meaning of institutional properties of a college. Places where classes are held, variability of offered majors, available infrastructure (e.g. dormitories, library, sport gyms etc.), a city where the school operates, and recruitment procedure are important (Flint, 1992, pp. 697–701).

Except for analyses of the national statistical research (including the Main Statistical Office on educational paths) one may find studies prepared by particular colleges on recruitment at various majors. The investigated students indicate *inter alia*: interests and skills, environmental determinants (including family, lifestyle), personal experiences with people, opinions of other students, as well possibility of finding a job after school, attractive offer of foreign languages teaching, availability of scholarships abroad and specialization and possibility of using scientific materials (Lalak, Skiba, 2010; Łapiński, 2006, p. 99; Górniak, 2014, p. 23).

Slightly different results of research concerning motives behind a decision on a major is presented in the PWC Report on *(Un) conscious professional choices* from June 2014 (*(Nie)świadome wybory...*, 2014) Majority of investigated secondary school pupils claims that ambitions and passion are an important or prevailing factor in selection of a major. Finding a job after college is also significant. The school reputation is the third important factor. Location of a school is less significant. Popularity of a given major, family tradition and friends' suggestions are less important. According to the report, a conclusion can be made that passion and ambition, then, a possibility of finding a job after school are the most important factors for the major choice. However, one should remember that people who start education in a college make a major-related decision based on the current situation on the job market, which may change in the course of studies. Selection of a major as early as in the secondary school may not be adjusted to the situation on the job market after the studies are completed. The schools' reputation may be an important factor. Well – known and recognized colleges are assessed higher by applicants. Location – the place where classes are held and popularity of the major are less important for the choice. Young people make educational decisions under slight influence of family traditions or based on the friend's opinion (*(Nie)świadome wybory...*, 2014)

Management is still a popular major among secondary school graduates. Information presented by the Ministry of Science and Higher Education on the results of recruitment to colleges for 2015/2016 academic year shows that every tenth applicant chooses management. Law and informatics are more popular (16%) (*Informacja o wynikach...*, 2015).

Taking into consideration changes which take place on the educational market as well as competition with regard to offered majors, the IPA JU undertakes actions aiming at determination of major choice determinants. The undertaken measures aim at tracing changes in the applicant's profile and indication of possible promoting actions of the IPA JU.

Case study – determinants of choice of the IPA JU major

Each year the Institute of Public Affairs carries out a research among students who begin education at the management major with the field of study in management in the public and non-governmental sector. The aim of the research is collection of information on sources of information on the IPA UJ, carried out majors and factors which decide on the choice of a college.

Students who start their education at the IPA JU declare that the school's reputation, city (Kraków) and curriculum are decisive. Moreover, students who started their education in 2016 were driven with the possibility

of obtaining good job after graduation and qualifications to work in the public sector. Intellectual development and obtaining a diploma of a popular university is also important. A random choice of the major and the second-major possibility at the IPA JU seems to be surprising. In 2008–2016 one may report a change in the meaning of several factors which decide on the major choice. One may observe decrease of the meaning of determinants i.e. satisfaction of interests related to the public sector and management, possibility of finding a well paid profession after completion of studies, possibility of obtaining a diploma from the JU, possibility of finding a job in the public sector. The increase of significance of other factors, i.e. extension of intellectual aspirations and coincidence is worth indicating. As one can observe, on one hand, students do not make decisions only on the basis of possibilities of finding a job after a college but they would also like to acquire knowledge related to the public sector and management. Unfortunately, a significant increase of the meaning of “incident” at selection of a college and a decrease of the significance of an interesting and fashionable major seems to be worrying.

Persons who choose studies at the major carried out by the IPA JU do not differ from other applicants. A possibility of finding a well-paid job and not necessarily in the public sector is a prevailing factor with regard to the selection of a major. A reputation of a school which guarantees a specific level of education, teaching curricula and lecturers are also important.

Conclusions

Colleges face a necessity of adjusting an offer of studies to students and to the labour market needs. Colleges fight the problem of a demographic low and the problem of adjusting education of students prepared to changing requirements of the labour market. Majors must be attractive for young people, guarantee a relevant level of acquired education and effectively shape strategies of obtaining students. Decisions made within the scope of selection of studies are related to the planning of professional future of employees. Secondary school leaving pupils undertake decisions on the major based on several factors. A possibility of finding a job, quality of a college or a major and satisfaction of intellectual aspirations are crucial. Teenagers must make decisions related to their education which affect their future situation on the job market. It would be the best if the major was related to the young people's interests. Then, a cognitive curiosity would precondition the use of the students' potential to learning which is compliant with their interests. However, practical aspects, such as training to carry out a given profession, prevail at a selection of a given major. Students who start studies at the IPA JU do not differ from other applicants.

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IMPROVING PUBLIC TRANSPORT SERVICE QUALITY THROUGH SUSTAINABLE URBAN MOBILITY PLANNING

MACIEJ MICHNEJ,¹ TOMASZ ZWOLIŃSKI²

¹ Cracow University of Technology, Institute of Rail Vehicles, POLAND
e-mail: maciej.michnej@mech.pk.edu.pl

² Municipality of Kraków, Department of R&D Project's, POLAND
e-mail: Tomasz.Zwolinski@um.krakow.pl

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ABSTRACT

This paper presents selected aspects of improving public transport service quality through Sustainable Urban Mobility Planning (SUMP). SUMP is a new concept of transport planning developed and promoted by the European Commission. In contrast to the traditional approach, this concept relies heavily on the involvement of citizens and stakeholders and institutional cooperation. It involves various levels of government and management between neighboring municipalities. The aim of the paper is to provide an overview of the importance of participation and institutional cooperation of SUMP process for the Kraków City.

Introduction

Located in southern Poland, Kraków is the second largest city in the country with around 760,000 inhabitants. It offers unique historical, cultural and scientific character. In recent decades city's development was based on economic and tourism fields. Kraków welcomes around 8 million tourists each year. Jagiellonian University, with around 150,000 students, is one of the oldest universities in Central and Eastern Europe. Kraków is also known

for very well developed public transport system, based on tram network. There are 132 bus lines and 24 tram lines serving ca. 1 million passengers every day. The quality of rolling stock and infrastructure has been improved constantly, including offering electronic ticketing solutions, real time information systems for passengers and demand responsive bus transport for example.

In 2016 city of Kraków developed and introduced another update of Transport Policy, as a major step towards implementation of SUMP cycle in the city through participating in the international project CH4LLENGE – *Addressing the four Key Challenges of Sustainable Urban Mobility Planning*, whose goal is to develop innovative, proven in practical action and possible to implement solutions for the four key challenges in sustainable urban mobility planning (*Challenge Project, 2014*):

1. Stakeholder participation and citizen involvement.
2. Institutional cooperation between sectors and disciplines.
3. Identification of the most effective policy measures.
4. Monitoring and evaluation of progress in SUMP development.

For each above-mentioned challenges, the cities analyse their local mobility situation, develop new strategies and are testing different solutions aiming to overcome barriers in 4 main challenges of Sustainable Urban Mobility Planning. More than forty pilot schemes have been developed and introduced, which provide real results and new lessons learned in the whole transport planning process (Hrelja, Monios, Rye, Isaksson, Scholten, 2017).

Objectives and base conditions for SUMP in the city of Kraków

Currently, Kraków has not established SUMP document. There are many sectorial documents, and for local transport there are mainly: transport policy (2007, updated 2016), parking programme (2012) and so called Transport Plan (2013) – which deals mainly with the development of public transport in the city and region. All these documents will serve as a basis for future SUMP development. The time horizon of the SUMP will be the year 2030. Updated transport policy is a basic vision-establishing document for the SUMP purposes. There are three main objectives for the city in terms of transport system development:

- to ensure the efficiency of the transport system of the city as sustainable in economic, environmental and social terms,
- further strengthening the role and improvements in the quality of public transport,
- creation of the integrated metropolitan transport system, providing accessibility in the framework of the region, the country and Europe.

Congestion in Kraków has significantly risen in the past decades. High traffic volumes are observed particularly in the city centre. It has been observed that rush hours prolong now up to four to five hours in mornings and afternoons which is a considerable rise in peak hours when traffic is at its highest.

The increased motorisation rate is considered as one of the most important causes of congestion problems. Kraków's motorisation rate (total number of vehicles/1,000 residents) is comparably high in the European context with 644 vehicles/1,000 residents in 2012.

Table 1. SUMP objectives for Kraków

Objective	Description
Efficiency	Maximising the benefits which users can gain from the transport system, after taking into account the costs of provision and operation of the system.
Liveable streets	Pleasant street and outdoor conditions in residential areas. It includes the positive external effects on social, cultural and recreational activity in neighborhoods, freedom of movement on foot and bicycle, and the reduced sense of danger for these modes. It is linked to, but separate from, the environmental and safety objectives.
Environment	The environmental impacts concerning transport include noise, air pollution, vibration, visual intrusion, severance, fear and intimidation, and the loss of flora and fauna, ancient monuments and historic buildings through the consumption of land. The environmental protection objective involves reducing the impact of transport facilities, and their use, on the environment of both users and non-users.
Equity and social inclusion	Equality, especially between different groups in society, in opportunities to travel, costs of travel and environmental and safety impacts of travel.
Safety	Minimising the number of all types of road traffic accidents. Usually expressed through total traffic accident costs or by accident risk per vehicle kilometre..
Economic growth	The increase in the market value of the goods and services produced by an economy over time.
Finance	The procurement (to get, obtain) of funds and effective (properly planned) utilisation of funds. It also deals with profits that adequately compensate for the cost and risks borne by the transport.

Source: SUMP Guidelines (2009).

Public transport is less affected by traffic congestion showing a better flow of vehicles and only minor delays. The City of Kraków has already taken several actions to tackle problems related to congestion. A number of demand management measures have been introduced such as the introduction of parking restrictions (fee-based) and access restrictions separating the city in zones A, B, C; entering zones A and B is only allowed for inhabitants and for delivery vehicles during certain time windows. The creation of new links between districts by building new ring roads also aims to ease congestion. However, road infrastructure development might be seen contradictory to sustainable mobility and might stimulate rather than reduce car-use.

Parking standards are set in local development plans but only about a third of the city's area is covered by such local plans; implementing parking requirements in the remaining areas is not regulated in a uniform way.

Kraków is one of the most polluted cities in Europe and does not meet European or national air quality standards. It was reported that air quality standards are exceeded on about 200 days a year. A 2012 study, for example, showed that the PM2.5 (PM – particulate matter; fine particles that have diameter of 2.5 micrometers or less) and PM10 (coarse particles fraction in addition to the PM2.5 fraction) levels were exceeded at all measuring points in Kraków. Also the average NO2 (nitrogen dioxide) emissions measured at a station on the second ring road were 80% above the standard allowed.

Public participation

The rules and procedures for public participation is governed by Resolution of City Council. According to the above mentioned resolution, the goal of public consultations in the Municipality of Kraków is to create a social participation in matters that are important for the city, such as the draft multi-annual urban development programs and investments, municipal investments and other projects included in the budget and cause a significant change in the living conditions residents by:

- informing the local community about planned by the Municipality of Kraków investment and urban projects,

- information about the effects of the investments and urban projects,
- promotion solutions for investment and urban projects, their importance for the development of the city and outcomes for residents,
- monitoring public opinion,
- getting to know residents opinions on matters covered by consultations,
- identify proposed solutions and ideas related to these investments and urban projects
- creation of offers of compensation for residents in areas so as to:
 - create a plane participation and involvement of citizens,
 - develop co-responsibility of citizens for the development of the city.
 - obtain the favor of residents for the investment and urban projects.

Public participation carried out by the Municipality of Kraków are divided depending on the scope of the instruments used for:

1. Full participation – they can be carried out using all available instruments of social dialogue (eg. contacts, appointments with the residents of the area covered by the public consultation, mobility forum), promotion and advertising (media campaigns and outside media – eg. leaflets, publications, direct mail) and public relations, that is selected according to the current state of knowledge and practice in this field.
2. Limited participation – information – can be carried out by:
 - online platform – a special website with a forum,
 - interactive media,
 - publications in the local press,
 - inserts in the local press,
 - information materials distributed in the form of direct mail (traditional or electronic mail)
 - own publications of Municipality of Kraków.

Activities related to the conduct of public participation in municipal planning of investments and projects, including activities related to land use planning are carried out by Municipality of Kraków – Division of Communication. Employees of the division are responsible for preparing the Preliminary Municipal Investment Catalogue (PMIC). The catalogue contains a description of the investments planned to be implemented in Kraków in the coming years, it is being developed, among others, based on the resolutions of the City Council and the documents related to investment planning and financial center. Based on the results of the consultation (investments with the most negative perception) in conjunction with the importance of the investment for the development of the City and the type and degree of impact of the investment into an area, the Steering Committee made qualifications of selected investments to the Catalogue of Municipal Investments. The Committee is also responsible for updating the catalogue.

Institutional cooperation

In Kraków internal and external institutional cooperation partners have been involved in the planning process from the beginning. Local cooperation partners have been involved as active members of the “working groups” appointed by the City mayor. The working groups comprise:

- Chairman – Director of the Department/Office or the Executing Unit or his Deputy,
- a program or project manager,
- authors of the studies,

- authors of the opinions,
- a representative of the Department of Planning and Investment Monitoring,
- Head of Division,
- a representative of the implementing entity (for investments in the programming phase).

At the meetings the authors present their solutions, while the authors of the opinions and other participants in the meeting send their observations and recommendations. Accepting the recommendations of the studies is done by consensus or decision of Chairman. Contentious issues relevant to policy and/or finance the Municipality defined by the team decides Chairman or Director Division. In relation to particular matters Mayor of Kraków, on the basis of relevant documents (information, justification, the draft resolution), which prepares the appropriate Division, Bureau or Unit.

In 2013 the Mayor of Kraków appointed working group to update the Kraków Development Strategy. The working group, was established with the division on the field of management – an area the impact of local government units in which public services are carried out objectively of a similar nature. During the work on updating the strategy there were created four strategic areas:

- strategic area A – Kraków – a social city,
- strategic area B – Kraków – a modern center of the economy,
- strategic area C – Kraków place of residence and recreation,
- strategic area D – Kraków metropolitan city.

The working groups have been also attended by representatives of social, scientific and economic. Working documents have been placed on dedicated information platforms such as KI AGH – Confluence, Trello, Google Drive. In addition, important documents placed in the Bulletin of the Public Information Office of the City of Kraków.

Monitoring and evaluation

Currently there are no legal obligations to monitor and evaluate progress in implementing hard and soft measures such as in case of SUMP. However, the situation has changed after funding of projects by the EU started. The fact, that the EU institutions control and monitor the use of fund in each project, among other through evaluating product indicators and strategic results, has been noticed as a good practice.

It has already had a significant impact on planning and management of projects and actions from other sources. There are examples of practices concerning regular monitoring and benchmarking of different transport modes, i.e. surveys among citizens and data collection concerning use of public transport, traffic counting and modelling, etc. There are indicators of products and results proposed for many areas of local transport (i.e. parking, cycling, road system, walking, public transport, traffic safety etc).

City of Kraków has applied „The conformity assessment procedure of actions undertaken by the Municipality of Kraków with accordance to Transport Policy for the Kraków for 2007–2015”, which will be likely continued for new transport policy and SUMP processes:

1. Scope of assessment

In accordance with the provisions of the Transport Policy for the City of Kraków for 2007–2015, evaluation is taken on the following subjects:

- spatial planning,
- public transport,

- road system,
- parking,
- cycling,
- organization and management,
- financial and economic policy,
- environmental protection,
- travel behaviour, communication with citizens and community education.

2. The stages of evaluation

1. Stage I (evaluation of individual instruments):

For each of the above mentioned issues, for the assessment of the effects of implementation of the provisions transport policy there is the expert method, evaluating the total degree of implementation of the policy in the given area. There are three degrees of the implementation of specific policy instruments with assessments:

- 1 – low,
- 2 – average,
- 3 – high.

2. Stage II (evaluation issues):

In the second stage of evaluation it is determined cumulative value of the indicator evaluation of the implementation of the given issue. This is implemented by calculating the ratio of actual evaluation of the maximum possible value in percent.

3. Stage III (evaluation of policy implementation):

In the third stage of the evaluation it is determined cumulative value of the indicator evaluation of the implementation transport policy. This is implemented by calculating the ratio of actual sum of all issues ratings to sum up the possible ratings expressed in percent. Therefore, it has been proposed the following interpretation of the cumulative rate of evaluating transport policy:

- 0–30% – the transport policy is not implemented,
- 31–50% – risk of implementing transport policy,
- 51–70% – transport policy is implemented well enough,
- >71% – transport policy is properly carried out.

Table 2. Summary of the issues that are being assessed

No.	Area	The maximum sum of ratings
1.	Spatial planning	24
2.	Public transport	45
3.	Development of the road system and traffic organization	36
4.	Parking	30
5.	Bicycle paths and equipment for persons with disabilities	24
6.	Organization and management	12
7.	Economic, financial and fiscal policy	15
8.	Environmental protection and quality of life	15
9.	Monitoring of transport behavior and communicating with residents and social education	21

Source: own data.

Within the CH4ALLENGE project City of Kraków has developed „Monitoring and Evaluation Plan” for future SUMP development.

It is not yet developed and decided how the monitoring and evaluation institutional framework will look like. Basing on the current practices, it will be mainly 2 city units: Roads and PT Authority (ZIKIT) and Department of Urban Utilities (GK), who will be responsible bodies for data collection and all the actions connected with monitoring and evaluation. The data and analysis will be used by the Deputy Mayor responsible for transport system and the City Council.

For the SUMP purposes, it is planned to mainly use the periodical large scale evaluation for overall strategies that are reviewing success at less frequent periods (1 to 5 years depending on measures) for which data collection, e.g. household surveys will be carried out. However, basing on the current practices, it will be continued to use all the available tools (i.e. computer modelling, surveys on the PT satisfaction, punctuality, etc. and data concerning volumes on the intersections and from the regulated parking zones) to enable monitoring and evaluation on the short-term basis as well (i.e. half- yearly reports).

It is not yet developed and decided how the stakeholder involvement in evaluation and monitoring will look like. The engagement of stakeholders continues to be relevant for monitoring and evaluation stages for the following reasons:

The stakeholders who set the vision and the prioritized results to realize that vision during the planning stage have the best ideas on how the results would continue to remain relevant to them. They must therefore be involved in identifying the information or feedback that is needed during implementation, which determines the parameters for monitoring and evaluation.

Main databases and tools used in Kraków:

- Visum and Visim modelling software,
- ISDP system (City’s Spatial Information System) – including current use of space, local spatial development plans, PT networks, heating, water networks, environmental issues, photo-maps, etc. – in total ca. 700 layers,
- results of different surveys, including user satisfaction surveys, measurements of PT usage, etc.,
- vehicle flows automatic measurements at ca. 40 intersections,
- visual data from cameras at intersections,
- rotation and number of parked cars in the paid parking zone,
- number of bikes used in bike sharing system.

The following table summarises the core outcome indicators as applied for Kraków.

Table 3. The core outcome indicators applied for Kraków

Objective	Core Indicators	Evaluation	Monitoring	Target
1	2	3	4	5
Efficiency	Average time lost per person km / ton km by mode		x	Reduction, potentially based on previous trends or benchmarking
	Public transport punctuality		x	
Liveable Streets	Share of traffic calmed areas	x	x	Increase, potentially benchmarking
	Perceived attractiveness of street environment	x		

1	2	3	4	5
Environment	CO ₂ emissions of traffic in city	x	x	Decrease
	Days exceeding critical levels	x	x	Decrease, based on EU air quality standards
Equity & Social Inclusion	Non-car accessibility to main services	x	x	Increase
	Accessibility for disabled people	x		Increase
Safety	Killed and seriously injured persons	x	x	Decrease
	Accidents by mode	x	x	Decrease
Economic Growth	GDP per capita	x	x	Increase, potentially based on previous trends or national targets
	Employment	x		
Finance	Cost recovery for transport investments	x		Increase
	Cost recovery for transport operations	x		Increase, potentially based on previous trends

Source: own elaboration based on *Challenge Project* (2014).

Having set the vision, priority results and initial parameters for monitoring and evaluation, the key stakeholders are best placed to ensure that the programmatic initiatives planned would deliver what was intended and the way it was intended.

Summary

Kraków was the first city in Poland to adopt a sustainable transport policy already in 1993 and has implemented a series of programmes and measures that referred to the use of space and the availability for different transport modes: pedestrian zones and zones with limited access for cars have been introduced and the infrastructure and public transport fleets have been modernised. The city's transport policy, updated in 2016, aims to create an efficient, safe, economical and environmentally friendly transport system for passengers and goods.

Although formal process of SUMP development has not yet started, a new transport policy include and take into consideration SUMP principles. Basing on the current experiences and analysis of different planning processes and documents like (SUMP Guidelines, 2009; Van Wee, Ettema, 2016, pp. 240–248; Banister, 2008; Sivakumar, 2007), generally major issues like public participation, cooperation, measure selection and monitoring and evaluation are properly addressed within transport planning processes. However, in many areas they need improvement or extension.

Like other cities, City of Kraków took part in the testing phase of the European "SUMP Self-Assessment Scheme" and got a score of 65/100 points. This means that planning process is in compliance with several aspects of the SUMP concept. However it does not comply with all basic criteria of the European Commission's SUMP concept and guidelines as presented in the Urban Mobility Package.

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INTERNAL AUDIT AS A TOOL FOR QUALITY CONTROL OF CUSTOMER SERVICE – CASE STUDY

DANUTA MIERZWA,¹MATEUSZ GĘDŁEK

¹ Military Academy of Land Forces in Wrocław, Faculty of Management, POLAND
e-mail: d.mierzwa@wso.wroc.pl

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ABSTRACT The article presents the results of research conducted in a financial advisory firm. The main purpose of the study was to answer the question whether internal auditing improves customer service quality and has an impact on the company's financial performance. The study was conducted in the years 2014–2017. The Authors sought to answer the question by means of a number of research methods and techniques. The first of them was the analysis of source texts, where a variety of expert opinions were confronted over a selected research period, and the results of a survey conducted among financial advisors of the selected company. The presented research has shown unequivocally that improving the quality of customer service by verifying relevant areas through internal audit ensures that a larger number of customers are handled in a comprehensive manner. Consequently, this leads to an increase in profit.

Introduction

The 21st century in the world economy is a time of high competition for private sector enterprises. This is forced by progressive globalization and the availability of products and services. Commercial entities are geared towards generating higher profits and acquiring new customers. The company investigated by the Authors focuses on financial advice, where the offered products take the form of consultancy services. The company profile requires

high standards of customer service from the employees. The market offers a customer a large choice of companies that deal with similar services, which imposes the necessity of continuous improvement of various aspects of customer service. Internal audit is one of the effective tools for improving customer service quality. It ceased to be associated only with the control of accounts and currently plays also an advisory function and supports the management in decision-making. It is also a mechanism to improve a company's performance.

The purpose of the study was to answer the question whether internal auditing improves customer service quality and has an impact on the company's financial performance. Audit tools are complex procedures that call for appropriately qualified personnel. The Authors sought to answer the question by means of a number of research methods and techniques. The first one was the analysis of source texts, where a variety of expert opinions were confronted over a selected research period. In the next stage of the research a survey was conducted among financial advisors from the chosen company. The survey targeted 50 employees (30 men and 20 women), which accounted for 10% of the surveyed population. The main purpose of the questionnaire was to answer the question whether financial advisors - audited - also confirm that internal audit improves customer contacts. The results of the research are presented in the tabular and graphical forms.

Definition and international standards for internal audit

Over the years, numerous definitions of internal audit have emerged, according to the Institute of Internal Auditors (IIA), the internationally recognized definition reads: 'Internal audit is an independent and objective activity of assurance and advisory character, aimed at bringing the added value into an organization and streamlining its functioning. Internal audit supports an organization in achieving the pursued objectives through systematic and consistent activity related to assessing and improving the effectiveness of risk management, control systems and organizational management processes' (Włodarska, 2012, p. 3).

When performing tasks conferred upon them, auditors are obliged to follow the IIA's International Standards for the Professional Practice of Internal Auditing, which fall into three categories:

- attribute standards,
- performance standards,
- implementation standards.

Attribute standards

The primary purpose of this type of standards is to clearly specify and define requirements that an organization sets to an internal audit as an organizational unit and an auditor or a group of internal auditors as a professional group as is laid down in the IIA Statute.

Performance standards

It is important for an auditor to be aware that the results of his/her work should give the added value to an organization. For this to happen the effective organization of work and good technical background are of great importance and the findings should be supported by evidence. The entire internal audit process must be consciously executed and planned so that management can monitor an auditor's progress on an ongoing basis (Czerwiński, 2005, p. 11).

Implementation/Task execution standards

In this section the Statute focuses mainly on analyzing and evaluating collected and substantiated information that must be sufficient to achieve objectives of a task. An auditor must characterize himself/herself with pragmatism, accuracy and familiarity with International Standards for the Professional Practice of Internal Auditing as well as others internationally recognized by the international environment of auditors, such as INTOSAI or ISACA standards, i.e. IT auditing standards (Czerwiński, 2005, p. 1; Molski, 2006, p. 162).

Professional approach

It is of crucial importance that an audit is professionally carried out. A person designated for inspection of a given entity must have general education and specialized qualifications in order to achieve professional excellence. The held certificates are useful for an organization to assess the professionalism of an employee. The especially appreciated ones include:

1. CIA (Certified Internal Auditor).
2. CISA (Certified Information System Auditor).
3. CISM (Certified Information Security Manager).
4. CFE (Certified Fraud Examiner).

An auditor should be credible, transparent, and objective; he/she is expected to observe professional secrecy and acting with due professional diligence (Młodzik, 2013, pp. 199–210).

Characteristics of the selected company

The start-up of the company under investigation dates back to the year 2000, when the first such large-scale web portal dealing with the sale of financial products was created. However, the weak informatization of the Polish society and the limited access to the Internet at that time forced a change in the way of operation. The above led to the transformation and change in the operational model, creating the first financial consultancy firm. In its 16-year history, the company continued to grow in importance in the counseling market and increased its popularity. This made it the largest company of this kind in Poland. In 2015, the company achieved a 10-fold increase in the net profit compared to the previous year, i.e. up to PLN 18 million.¹ It shows the size, scale and efficiency in generating high profits for investors and a range of other financial services. Within 15 years the company has developed to such an extent that today it has 90 branches in 50 cities. In 2014, the company mediated in gaining almost PLN 4 billion on terms of mortgage loans, which was an absolute record in Poland for such a short period of time. Already a year later the proprietary investment products offered to clients generated 16 percent of pure income,² which in strategic investments counts in millions of PLN. Great results led to the acquisition of the surveyed Enterprise by Avive, one of the largest companies in the British financial market. This allowed for developing current business structure and introducing the highest international standards based on the Orange Book. The follow-up of the above was the growth of quotations in 2016 as well as the opening of 10 new branches giving an opportunity of real competition with two other largest corporations in the sector, i.e. Tax Care and Open Finance.

¹ Retrieved from: http://www.expander.pl/pressroom/17095,conscious.html#_ (28.03.2017).

² Ibidem.

In Poland the research was conducted in one selected branch. The analyzed branch operates on a franchise basis. The products offered include loans, investments, savings and insurances.

As for the Code of Ethics, the researched firm puts a strong emphasis on relationships with the environment. Shaping contacts with customers must be executed by respecting internal procedures, employees' responsibility for customers and the brand representation, reliable information and searching for the best quality solutions, due care of confidentiality and avoiding behaviors that could discredit the company. There is an official prohibition on insulting competitive firms and the requirement to respect other market players. Rivalry is not to be based on instilling into customers unfavorable opinions about the competition, but only on the appropriate advertising of own products.

Takeover of the researched entity by an international capital group resulted in a number of changes in customer service quality and auditing standards in individual branches. The application of new standards had a positive effect on the company's financial performance as early as in the year the company was turned over.

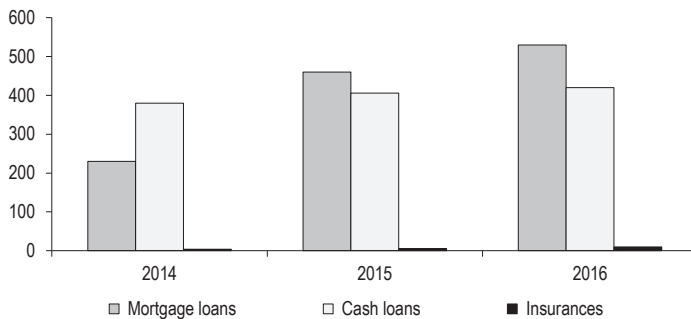


Figure 1. The amount of achieved financial volumes in three consecutive years (expressed in PLN millions)

Source: own study based on press releases from the selected financial advisory company in the years 2014–2016.

The value of volumes achieved in the period under analysis was increasing. The decisions of the company's management and improvement of the customer service quality during the past three years influenced by regular audits of each branch were decisive of development of such a state of affairs.

Financial advisory market

The financial advisory market in Poland has been growing steadily for several years. Companies operating in this sector achieved very high financial result in 2016. Table 1 depicts the value of mortgage loans paid for the third and fourth quarters of 2016.

Every second mortgage loan in Poland is granted with involvement of a financial intermediary (PricewaterhouseCoopers Audit Company, 2017), which proves the dynamic development of this sector in Poland. The last quarter saw the result by 11% higher than the previous period, and the value of sold investment products reached PLN 119 million (Table 2).

Table 1. The value of mortgages sold by the Association of Financial Advisory Companies' members in the third quarter of 2016 and the fourth quarter of 2016

Total amount of MORTGAGE LOANS disbursed (in PLN million)			
no.	company name	the third quarter of 2016	the fourth quarter of 2016
1.	Open Finanse	1,436.00	1,427.00
2.	Expander Advisors	1,272.06	1,352.04
3.	Notus Doradcy Kredytowi	516.02	491.62
4.	mFinanse	347.56	376.00
5.	Gold Finance	163.83	159.19
Total		3,735.47	3,805.85

Source: Association of Financial Advisory Companies.

Table 2. The value of investment products sold by the Association of Financial Advisory Companies' members in the third quarter of 2016 and the fourth quarter of 2016

Total amount of INVESTMENT PRODUCTS sold (in PLN million)			
no.	company name	the third quarter of 2016	the fourth quarter of 2016
1.	Open Finanse	75.00	78.00
2.	Expander Advisors	32.01	41.00
3.	Gold Finance	0.20	0.08
Total		107.21	119.08

Source: Association of Financial Advisory Companies.

The economic situation in Poland is very dynamic, prompting the Poles to seek solutions that will allow them to invest and multiply their capital. With the help of financial advisors, they can easily and quickly compare the current offer of competing insurance companies and banks (Sawicki, 2013, pp. 81–88). Using consulting services helps a customer to save time and more accurately choose a product that will meet his/her expectations and capabilities. Enterprises also benefit from the services of financial advisors and the value of paid financial loans for the fourth quarter exceeded PLN 395 million.

Table 3. The value of company loans sold by the Association of Financial Advisory Companies' members in the third quarter of 2016 and the fourth quarter of 2016

Total amount of COMPANY LOANS paid (in PLN million)			
no.	company name	the third quarter of 2016	the fourth quarter of 2016
1.	Open Finanse	132.00	167.00
2.	Expander Advisors	171.18	109.83
3.	mFinanse S.A.	59.38	61.03
4.	Gold Finance	10.20	30.35
5.	Notus Doradcy Kredytowi	25.36	27.33
Total		398.12	395.54

Source: Association of Financial Advisory Companies.

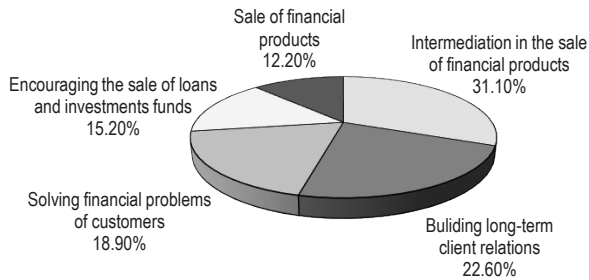


Figure 2. How customers perceive financial advisory services

Source: own study based on Matuszyński (2012), p. 23.

Favorable market conditions, economic development and optimistic economic forecasts for Poland influenced the amount of loans taken by entrepreneurs. The third and fourth quarter of 2016 were exceptionally advantageous for financial advisors in terms of company loans granted (Table 3). This demonstrates the growing importance of financial advice to private and business customers.

In our country, the financial advisory market is relatively young, but very extensive due to the lack of legal regulations. The 'Bankier.pl' portal conducted a survey of 2,281 people who answered questions about aspects of financial advisors' work and the level of satisfaction of services offered.

Almost half of the respondents declared that they were satisfied with financial advisory services in Poland. Only 22% of respondents were dissatisfied or found the use of advisors' help a waste of time. Such results evidences a high level of customer confidence and may prove that this sector will continue to grow in the future. Financial advisory varies for every customer. Twenty years ago, it was mainly selling insurances or unit linked products, i.e. investing through shares, bonds or investment funds.

Nowadays, the perception of financial advisory has changed. Customers recognize the role of advisers in mediating sales of financial products and building long-term relationships, as confirmed by more than 50 percent of the respondents. One fifth of the respondents perceive counseling as a possible help in solving financial problems. The market is becoming more and more competitive, and only companies that serve customers in a comprehensive way have a chance to succeed (Fiedor, 2014, p. 118). It must be borne in mind that commitments, which a prospective customer takes on when using services of a financial advisor, are usually longstanding. When it comes to credits or investment funds, the duration of commitments and contracts is often ten years or longer, thus customers are very selective about advisors they undertake cooperation with.

With the growing awareness of the Poles about the possibility of using financial advisors, their interest in financial products is also increasing. Customers expect the choice to be continually expanded, which enables better matching services to clients' needs (16% of responses). Customers pay attention to the following aspects: comprehensive knowledge, problem-solving skills (38% of answers) and high customer service standards (30% of responses) (Figure 3) (Piołunowicz, Wizner, Tomaszewska, 2013, pp. 1–7).

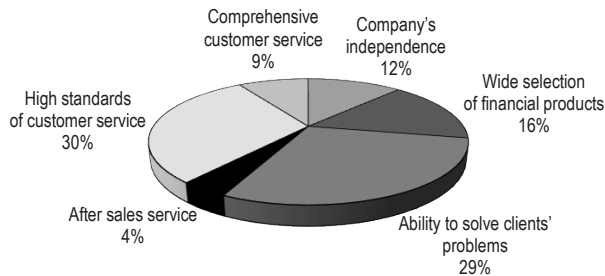


Figure 3. Expectations of customers regarding financial advisory services

Source: own study based on: Matuszyński (2012), p. 24.

The complexity of products offered by banks precludes a thorough familiarization with the offer and the selection of the most advantageous one. In this situation, financial advisors come to the aid, since knowing all the current offers of a bank, they help to make decisions quickly and accurately. Poland is catching up with Western countries, where the services of financial advisers have been used since the 1970s (Waliszewski, 2012, pp. 199–210).

The analysis of selected survey responses

In 2017, the Authors conducted 50 anonymous personal questionnaires among financial advisers, i.e. persons directly audited. The question: 'Do you feel that regular internal auditing helps to improve customer service in terms of services offered by service advisers?' (Figure 4) was responded unambiguously, 90% of men and 30% of women replied positively. The question 'Do you think that customer service quality audits should be performed in the future' received Figure 5.

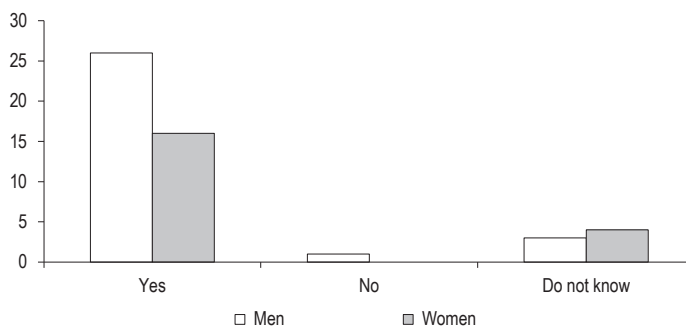


Figure 4. Do you feel that regular internal auditing helps to improve customer service in terms of services offered by service advisers?

Source: own study based on surveys carried out among advisors of the selected financial advisory company.

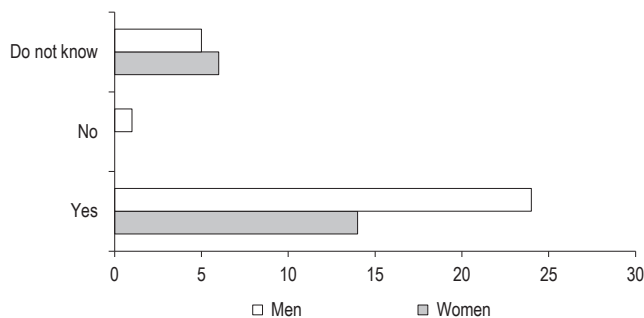


Figure 5. Do you think that customer service quality audits should be performed in the future

Source: own study based on surveys carried out among advisers of the selected financial advisory company.

It can be seen from the above Figure that about 40% of the surveyed respondents declare that quality customer service audits should be continued in the future.

Conclusion

Nowadays, the level of services significantly exceeds the quantity of goods offered and therefore it is particularly important to optimize the quality of customer service. The research has shown that verifying relevant areas and gathering information about them can significantly improve customer service. At the same time, the awareness of the management board about the state of affairs of the preparation of advisors for the profession is increasing. It can be said that financial consulting in Poland is a sector with prospects for the future. Undoubtedly, optimizing the quality of customer service can help to achieve a better position in the market and a more competitive offer compared to other companies operating in the sector. The economy of Poland is developing very dynamically and at present the increasing quality of customer service is even obligatory in order to make a company's offer attractive. The above has been also confirmed by the financial results achieved by the analyzed company, which is undoubtedly due to servicing a larger number of customers.

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IMPACT OF EU FUNDS ON THE EFFECTIVENESS OF INNOVATIONS IMPLEMENTED IN THE SME SECTOR IN POLAND

TOMASZ NOREK

University of Szczecin, POLAND
e-mail: norek@wzieu.pl

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ABSTRACT

The importance of innovation is reflected in EU policies which provide large funds for member states on the development of innovation. Despite the large interventions innovativeness of the Polish economy is relatively low. This situation is particularly evident in relation to the SME sector companies. This dichotomy is an important subject of research in the field of economy the SME sector, and the applications can make a significant contribution to the strategy of building aid policy in the field of innovation financing.

The purpose of this article is to analyze the efficiency of the use of EU funds for the development of innovation in the Polish SME sector. The author puts the research hypothesis: (H1): *allocation of EU funds does not affect significantly the efficiency of innovation activities carried out by Polish SME companies*. In order to verify the hypothesis author conducted to compare the effects of innovative activity of SMEs include the division of the company that benefited from EU funds for the development of innovation and the company that not exploited EU funds. The author used the method of the survey. The study was conducted in the years 2014–2016 on a sample of 400 SME sector. In addition, author conducted a critical analysis of the literature of the subject and has used commonly available statistics.

Introduction

A present-day, commonly accepted economic paradigm holds that innovation is the foremost determinant of development opportunities – both on the macro and microeconomic level. In the macroeconomic perspective, innovation is a significant factor of economic growth, whereas in the microeconomic perspective, innovation directly affects the competitiveness of economic entities (Farinha, Ferreira, Gouveia, 2016; Carayannis, Grigoroudis,

2014). After a thorough review of academic literature it can be also stated that the role of innovation is particularly emphasized in case of small and medium-sized companies, which reflects the SME sector's significance for today's economy: SME generate over 60% of new employments, SME enable transformation of the industry from traditional production forms to advanced technologies (Dibrell, Davis, Craig, 2008, pp. 203–218), SME of the sector significantly contribute to the development of the global market (Salvato, Lassini, Wiklund, 2007, pp. 282–305), SME play a key role in the development of innovations aiming at the increase of the competitiveness (Low, Chapman, 2007, pp. 878–891).

In the European Union innovation is treated as a *sine qua non* condition for ensuring dynamic growth of the entire Union and its competitiveness in relation to other developed global economies. The EU policy and strategy with regard to the objectives, priorities and support areas of innovation in member states is expressed in EU's official documents and vastly commented on in academic literature (Janger, Schubert, Andries, Rammer, Hoskens, 2016, pp. 30–42; Camagni, Capello, 2013). Authors unequivocally point to the fact that support for the innovation of the SME sector occupies a special place in the EU policy, especially in relation to less developed member states (Radas, Božić 2009, pp. 438–450). Ensuring the continuity of innovative processes requires the control of the development of knowledge and its applications at various levels. (Budziewicz-Guźlecka, 2014, pp. 12).

Poland is one of the largest beneficiaries of the EU funds. Present EU financial support for innovation development in Poland (for the years 2014–2020) is realized through: Smart Growth Operational Programme (with allocation for Poland amounting to 8.6 bn euro), and 16 Regional Operational Programmes dedicated to individual provinces (priority axes supporting the creation of innovation and smart regional specialization, allocation of EU funds of 31.3 bn euro)¹.

Despite this huge financial support, compared to other member states, the level of innovation of Polish economy is still relatively low. In the latest European Innovation Scoreboard Poland ranked 23rd among 28 countries surveyed (Hollander, Es-Sadki, Kanerva, 2016). As it comes to the SII index (Summary Innovation Index) which is a measure of a country's overall innovative performance, Poland's score of 0.2917 placed it among the so-called moderate innovator countries. Poland was followed by Romania (0.1796), Bulgaria (0.2415), Croatia (0.2814), Latvia (0.2814) and Lithuania (0.2821). The below the average level of innovation of Polish economy has also been confirmed by other research conducted by national, European and global institutions including the Polish Central Statistical Office, EuroStat and the World Bank.

The reason for the continuing low innovation of Polish economy in spite of huge innovation funding is undoubtedly an issue that urgently calls for research and explanation.

Measurement of innovation efficiency based on indicator methods. Literature review and theoretical background

In academic literature, efficiency is usually defined as a result of activities undertaken, and described in terms of actual output relative to input, or results relative to resources used (Stoner, Wankel, 1986, pp. 29–30). Efficiency as an economic category is supported by a range of complex theories. A clear, concise and precise overview of present-day comparative efficiency assessment methods can be found, among others, in the works by V. Sarafidis (2002).

¹ www.poig.gov.pl (15.02.2018).

Meanwhile though, upon a thorough literature review the Author concluded that the issue of analysis and assessment of innovation efficiency is relatively rarely tackled (Geroski, Machin, Reenen, 1993, pp. 198–211; Rosebusch, Brinckmann, Bausch, 2010; Sawang, Unsworth, Sorbello, 2012, pp. 110–125). Academics who explore the issue of innovation efficiency focus on formulating definitions of innovation efficiency, and apply standard efficiency measures, which usually capture measurable characteristics of innovation (West, Bogers, 2014; Bijanska, 2011). Such approach can yield certain results in case of individual innovation ventures, however it seems unsatisfactory when aiming at a comprehensive evaluation of innovation efficiency of a company, or entire economic sector(s).

As it transpires from existing subject literature (Foreman-Peck, 2013, pp. 55–70), innovation activities are assessed with the use of the same methods which are used to assess investment projects – commonly used static and dynamic investment project evaluation methods. And so, a wide range of innovation forms is narrowed down to a technology, product or process, that is forms that can be assessed with financial measures – whilst in case of the effects of innovation implementation, a many effects are not financial in nature, or else, are not measurable at all. The issue arises when, for example, one is supposed to assess value innovation or even organizational innovation, when it is difficult to determine or measure expected rate of return or anticipated market success generated by implementation of innovation due to the complexity and multidimensionality of its effects and costs.

Synthetic and comprehensive review of theories of economic efficiency, including an evaluation of their applicability for the assessment of innovation efficiency, was presented by M. Kotsemir (2013). Moreover, in principle, innovation efficiency evaluation based on available European statistics does not provide specific information on the activities of companies from the SME sector (Hollanders, Esser, 2007).

For the sake of clarity of the research subject, the Author adopts in this paper a definition of innovation efficiency (innovation activity efficiency) formulated by S. Sawang, K. Unsworth and T. Sorbello: innovation efficiency is the overall result of benefits stemming from implementation of given innovation (Sawang et al., 2012).

Upon analysis of reference literature and practical aspects of innovation efficiency evaluation, the following group of indicators appears to be a sound proposal:

- return on innovation investment (ROI2),
- percent share in the profit from sale of innovation in total company profit.

The above indicators explicitly illustrate and, in consequence, evaluate the efficiency of innovation activities and allow to directly assess the innovation effects (profits) ratio to costs incurred.

ROI2 (Return on Innovation Investment) is an indicator widely used in subject literature to evaluate efficiency of innovation. It is calculated by comparing total profits of new product or service sales with total expenditure on investment over certain time. The idea to apply the ROI2 indicator to evaluate innovation efficiency and its application methodology were developed by, among others, A. Kandybina (2014), P. Drake (Drake, Miles, Sakkab, Jonash, 2006, pp. 32–41); A. Kandybina and M. Kihn (2004).

Return on innovation investment can be calculated in several way. The most common and useful way is (Marr, 2012): $ROI2 = [(Net\ profit\ from\ new\ products\ and\ services) - (Innovation\ costs\ for\ these\ products\ and\ services)] / (Innovation\ costs\ for\ these\ products\ and\ services)$.

Although the ROI2 indicator is very useful in evaluating the efficiency of specific innovation projects, its application to entire economic sectors and branches of industry is debatable (precise identification of stream of revenues and outlays on innovation), and the evaluation and interpretation of results additionally requires the

researcher to define reference values (or expected values). This stems from the fact that innovation efficiency correlates very strongly with company size, economic sector, type of business activity, and also the kind of given innovation initiative. For example, large production enterprises usually have a substantially higher ROI2 than small service providers.

Method, used sample and research limitations

The main objective of this paper is to answer the question: Does the allocation of EU funds affect the efficiency of innovation activities carried out by Polish SME companies? Relatively low innovation of Polish economy on the one hand, and on the other, consumption of EU funds allocated to innovation, raise doubts as to the efficiency of using European aid measures to boost innovation.

In an attempt to answer the puzzle, the Author has propounded the following hypothesis (H1): *allocation of EU funds does not affect significantly the efficiency of innovation activities carried out by Polish SME companies.*

A comparative method was applied in the research – two groups of companies were extracted from the research sample: one composed of companies which used EU funds in their innovation initiatives, and one grouping companies which did not avail themselves of EU funds (grouping by feature selection). Innovation activity was defined as implementation (diffusion or absorption) of any innovation meeting the criteria of Oslo Manual by the company.

The research sample consisted of 400 SME firms registered in Poland, and operating for minimum 5 years. The companies were purposefully selected with regard to company size (according to the commonly applied classification by size of employment in the research year, i.e. micro, small and medium-sized companies), and primary business activity stipulated in PKD (Polish Classification of Activities, i.e. industrial/ production companies and service companies). This targeted selection was meant to ensure that research is conducted on a sample reflecting statistical composition of Polish SME sector (in accordance with the sectoral data published by Polish Central Statistical Office). However, it must be underlined that the research sample is not representative. A detailed structure of the research sample is provided in Table 1.

Table 1. Research sample structure

Type of company	Number of companies	Number of companies due to the source of financing innovation		The sum of innovations implemented in the period	
		without EU funds	UE funds	without EU funds	UE funds
Mikro	303	179	124	398	265
Production	151	89	62	184	135
Service	152	90	62	214	130
Small	66	32	34	50	66
Production	33	14	19	24	34
Service	33	18	15	26	32
Medium-Size	31	17	14	43	27
Production	14	7	7	18	15
Service	17	10	7	25	12
Total	400	228	172	491	358

Source: own elaboration based on research data.

Empirical data were collected by way of an online questionnaire containing 34 questions. Respondents, that is entrepreneurs, provided basic company data and detailed data regarding innovation initiatives carried out in the surveyed period, i.a.: the number of implemented innovations, type of innovation, overall innovation expenditure, and innovation financing sources (using EU funds or not). Respondents provided additional information, including: expected rate of return on innovation, and competence with regard to evaluation of one's own innovation efficiency. The questionnaire survey was conducted over the period 2014–2016.

Based on the data gathered, the Author computed the ROI2 indicator for all companies surveyed – with the assumption that the accumulated profit/expense streams for each of the companies surveyed was attained (documented) for at least one year. The results were subjected to descriptive statistical analysis, normality of distribution was checked, and non-parametric statistical tests were conducted (U-Mann-Whitney test and Kolmogorov-Smirnov test) to determine whether differences between datasets are significant (Hollander, Wolfe 2014).

Results and discussion

Firstly, the Author divided the research sample into two groups:

1. Companies which used EU funds in their innovation initiatives – the group consisted of 172 firms that implemented the total of 358 innovations in the study period. Average share of EU funding was 62% (micro 61%, small 65%, medium-sized companies 62%, respectively).
2. Companies which did not use EU funds – the group consisted of 228 firms that implemented the total of 491 innovations in the study period.

Next, the Author computed the ROI2 indicator for the study groups, and compared the indicator with the quoted expected values. Due to the limited scope of this paper, the Author presents only the aggregated cross-section mean value of ROI2 for the following data measures: Company size/Type of business activity, grouped by Innovation funding source. Averaged results are presented in Table 2.

Table 2. ROI2 indicator for the research sample (%)

Type of company	Average ROI2	Average expected ROI2	Without EU funds		UE funds	
			Average ROI2	Expected ROI2	Average ROI2	Expected ROI2
Micro	8.98	16.19	9.95	15.04	7.58	17.85
Production	8.54	17.76	9.82	16.40	6.69	19.71
Service	9.42	14.63	10.08	13.69	8.46	16.00
Small	9.50	17.48	9.22	14.59	9.76	20.21
Production	10.12	16.88	8.86	13.93	11.05	19.05
Service	8.88	18.09	9.50	15.11	8.13	21.67
Medium-Size	18.03	16.23	20.35	15.00	15.21	17.71
Production	17.14	14.29	20.00	15.00	14.29	13.57
Service	18.76	17.82	20.60	15.00	16.14	21.86
Average	9.77	16.41	10.62	14.97	8.63	18.31

Source: own elaboration based on research data.

For companies which did not use EU funds to finance their innovation initiatives ROI2 had the average value of 10.62%. The expected ROI2 value for this group was 14.97%. Average value of ROI2 of companies which benefited from EU funding was 7.87%, and the expected value was 18.31%.

Considering the size of surveyed companies, it should be noted that better results and higher efficiency was shown by micro (9.95%) and medium-size (20.35%) companies not supported by the EU funds, as well as small (9.76%) companies using EU funds in their innovation ventures. The difference is particularly noticeable in the group of medium-sized companies (difference of 5.14%).

Considering the type of business activity in the group of firms that did not use EU funds, average ROI2 for production companies was 10.35%, whereas for service providing companies it was 10.88%, thus they showed better innovation efficiency than the group of firms benefiting from EU funding (the difference was respectively: 2.11% for production companies, and 1.84% for service companies).

To recapitulate, the reported results allow to conclude that companies whose innovation projects are co-funded by the EU yield a statistically lower average rate of return (lower innovation efficiency) – the difference was 1.99%, and thus the results tentatively confirm the hypothesis made. The hypothesis can be fully verified after answering the question: Is the difference obtained statistically significant?

In order to answer this question and confirm the statistical significance of differences between results for the data sets, the Author performed the U-Mann-Whitney non-parametric test (selected after the normality of distribution of ROI2 was checked for the study groups). The results obtained indicate that the difference between mean ROI2 for both study groups is not statistically significant – with the p value of $p = 0.114451$ (higher than $p = 0.05$ which denotes standard statistical significance in economic sciences). This result fully supports the hypothesis perpetrated.

Conclusions

The results confirm the hypothesis (H1) made by the Author: the consumption of EU funds does not affect significantly the efficiency of innovation activities carried out by Polish SME companies. What is more, it can be ascertained that the employment of EU funds to finance innovation activities exacerbates the effects of innovation initiatives (average result down by 1.99%). Such a situation gives rise to a question – Why companies that benefit from EU funds have achieved worse results in the study?

An exhaustive answer to this question would require thorough research to correlate the results obtained with particular company's attributes and determinants of innovation processes, such as e.g. innovation planning, R&D collaboration, innovation implementation or enterprise innovation culture. For example, interesting information is provided by correlation of the company's length of existence with effects of its innovation activities (the Author, based on a preliminary analysis, assumes that companies with longer experience on the market achieve higher efficiency).

Another, frequently evoked explanation for these findings is the thesis about the so-called „easy money” resulting from wide and relatively easy access to EU funds. Entrepreneurs use EU funds “as a by-product”, “by the way”, so to speak, which means that they carry out innovation projects in an unprofessional and unplanned manner. The lack of capability to evaluate the efficiency of one's own innovation initiatives displayed by the entire study group confirms this hypothesis – only 23% of the study companies analyzed their efficiency, and as much as 56% admitted to having no competence whatsoever in this respect (this can be understood in case of micro firms, yet in

case of small and medium-sized companies lack of evaluation capacity is unacceptable). Such limitations result in an inability to effectively monitor innovation processes and, in consequence, inability to achieve expected benefits from implementation of innovation.

The results obtained in such a way can help formulate a development strategy for national innovation policy at the macroeconomic level. Moreover, the research findings provide reference values for innovation efficiency indicators for given groups of companies which can serve as basis for the development of recommendations on the monitoring and evaluation of efficiency of innovation initiatives.

From the academic perspective, it would be most interesting to broaden the research scope and include other EU states – results of such an extended research may serve as a benchmark of the efficiency of innovation policy in individual EU member states.

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ECO-EDUCATION AS AN ELEMENT OF MUNICIPAL WASTE MANAGEMENT SYSTEMS IN POLAND

STEFAN NOWAK,¹ AGNIESZKA ULFIK²

The Jerzy Kukuczka Academy of Physical Education in Katowice, POLAND

¹ e-mail: nowakstef@gmail.com

² e-mail: aulfik@gmail.com

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ABSTRACT

The generation of municipal waste is inextricably linked to human functioning. In Poland since 1 July 2011, as a result of legislative changes, the approach to municipal waste has changed. Since then, municipalities have been the owners of waste and are responsible for achieving the appropriate levels of indicators imposed by European legislation. These changes necessitate the need for solutions that will teach residents of individual municipalities to segregate waste and the use of specific discipline imposed observance of the waste collection schedules. Different municipalities use different methods of educating residents to separate waste. In most cases, the greatest emphasis is placed on school age education. The knowledge passed on to children is also addressed to adults. The article presents examples of the use of eco-education used in the management of waste management systems in Poland.

Introduction

Ecological education also called as environmental education is the concept of educating and upbringing the society in a spirit of respect for the environment according to the motto to think globally – to act locally. Ecological education is also defined as a psychological and pedagogical process of influencing people to shape their ecological awareness (Dobrzańska, Dobrzański, Kielczewski, 2008).

In the management of municipal waste management system in Poland is very important effect of environmental education activities is the amount of separately collected waste. Formation of these values demonstrates the level of awareness of citizens. It should be remembered that the overall amount of waste increases with an increase in quality of life (Budică, Buşu, Dumitru, Purcaru, 2015). The ratio of waste collected selectively to total waste is shown in Table 1.

Table 1. Municipal waste collected selectively in relation to the total of municipal waste collected in the year 2010–2015 (%)

Waste collected selectively	2010	2011	2012	2013	2014	2015
Total	8.6	10.0	10.5	13.5	19.8	23.4
From households	8.7	9.8	10.5	14.4	21.2	25.1
Paper and cardboard, metals, glass and plastics	5.3	6.3	6.8	7.9	9.5	9.1

Source: selected data from Central Statistical Office of Poland. Retrieved from: <http://stat.gov.pl>.

In recent years, segregation of waste in Poland is systematically gaining in popularity. In total, in the years 2009–2015, 16 major studies on environmental awareness, attitudes and behaviors were conducted in Poland (TNS Polska, 2015). In 2014, the proportion of people who regularly segregated waste was 68% (TNS Polska, 2014). The data in Table 1 also indicate a significant increase in the amount of municipal waste collected selectively between 2010 and 2015. The largest increase was recorded in the field of municipal waste collected from households. Over the five years studied, this level has increased almost threefold.

Regulations on proper sorting of waste

From 1 July 2017 it started to apply Regulation of the Minister of Environment of 29 December 2016. On the detailed method for the selective collection of selected waste fractions (Rozporządzenie..., 2016). It specifies precisely how waste should be segregated, including the division into fractions and the color of the containers in which they are to be segregated. It was called the Joint Waste Separation System. The Ministry of the Environment has introduced a transitional period for municipalities to implement common rules.

On the exchange of containers in the appropriate colors municipality will have five years. So the community will have to do it up to 30 June 2022. If it is not possible to replace containers quickly, it is possible to use existing ones. Each of them must, however, be properly labeled. The labeling of existing containers must be applied within no more than 6 months from 1 July 2017. According to the regulation, 5 fractions will be selectively collected: paper, glass, metals, plastics and biodegradable waste. The paper is designed for a container or a bag in blue color. The glass is designed for containers and bags in green. Metals and plastics should be placed in yellow containers and bags. Fractions of plastics and metals have been combined because most waste management installations are equipped with devices that can easily separate metal from any waste stream. These devices use ferromagnetic properties of metals. Another fraction is biodegradable waste. These are designed for containers and bags in brown.

The rest of the waste is mixed municipal waste – collected in black containers. These wastes are most often subjected to further processing using mechanical and biological waste treatment. The use of this method significantly reduces the amount of waste deposited in landfills (Siemiątkowski, 2012).

Another possibility is to use thermal conversion of waste. Various solutions of this type are widely used throughout the world. In Poland, these technologies are still rarely used, but in many regions they are currently working in this direction (Jurczyk, Koc-Jurczyk, 2017).

Implementation of the requirements introduced by the regulation (Rozporządzenie..., 2016), brings order in terms of the existing rules. This order and harmonized rules are essential for the effective implementation of nationwide education campaigns. Successful implementation of these campaigns gives the opportunity to apply the principles of sustainable development.

Additional options for sorting waste

This regulation does not introduce the need for separate collection of other waste, which in the majority of municipalities are already collected selectively. Municipalities maintain points called Municipal Waste Collection Points and most often the residents bring waste to them by themselves. However, part of the fraction is received at the source.

This group includes ash from the furnace, usually collected in black or gray containers during the heating period. The necessity of ash picking is due to separate regulations and is related to the high toxicity of ashes and the presence of rare elements in them (Bielowicz, 2013).

Separately collected are also building demolition waste, such as rubble, wood from demolition, gypsum boards, window and door glass, window and door frames, roofing materials, installation waste from households. In many municipalities, containers made of strong material called big bags are used to collect these waste.

Residents are also encouraged to selectively rendering bulky waste. This group includes most often: liner, carpets, wooden and plastic window frames, wood packaging type pallets, furniture like tables, chairs, wardrobes, couches, mattresses, fridges, washing machines and others of large dimensions (Pasicznik, Banaszkiwicz, Klodziński, 2016).

Separately should also be collected electro-waste, problem and dangerous waste and hazardous waste. These include: overdue drugs, chemicals, used batteries, accumulators, electrical and electronic equipment of small dimensions, plant protection agents, acids, paints, inks, lacquers, fluorescent lamps (Budică, Buşu, Dumitru, Purcaru, 2015).

Separating hazardous waste from mixed municipal waste streams is extremely important. Only the inhabitants can do this effectively, by separating the waste at the source. If hazardous waste goes to mixed waste, they often land in landfills and from there they can penetrate directly into the environment. In the case of drugs it is particularly dangerous if they penetrate the water to pollute it. Of the remaining waste batteries are particularly harmful. It is relatively easy for every citizen to selectively collect and donate them because they do not take up much space. Currently, most shops and public institutions in Poland are containers for used batteries. In addition, many municipalities among children in schools are run competitions for collection and accumulate as many batteries. In the case of batteries entering the dump, they release hazardous substances, very toxic to humans, such as cadmium (Ulfik, Nowak, 2014).

Many municipalities, especially urban and urban–rural ones, also provide for the selective collection of green waste (leaves, grass, branches, bushes). For this purpose, selective Green Waste Collection Points are used, depending on the needs, most often in neighborhoods where there is single family housing. With biodegradable

waste energy recovery is possible (Kot, Ślusarczyk, 2013). In rural areas, residents are most often encouraged to self-compost green waste and use it as a fertilizer compost (Bajdor, Starostka-Patyk, Lis, 2016).

Segregation and recycling – lifelong learning

In addition to the content on the ecology carried out in the school curriculum in Poland has also been implemented and conducted many education programs for adults also. They were made possible by the national unification of the principles of waste segregation from 1 July 2017.

The Ministry of the Environment in order to educate the public has carried out a large social campaign, whose main slogan was: „Waste is not rubbish and raw materials can be reused.” The new Internet service „Our Garbage” was launched at <http://naszesmieci.mos.gov.pl>.

According to the ministry recommendations, the entire segregation process that residents are expected to perform can be presented in three simple steps:

1. Separation of what can be recovered, or recyclable materials, in particular plastic or metal, paper, glass and biodegradable waste.
2. Attention to hazardous waste. Never throw them in mixed waste. Batteries, incandescent bulbs and fine electrolytes should be disposed of in special containers in shops. Outdated medicines and used medical equipment (such as syringes) should be discarded in special containers in pharmacies.
3. The container mixed municipal waste should be disposed of only what can not be recovered, eg. paper towels and tissues, diapers, sanitary napkins, greasy paper.

One of the main causes of residents' dislike for waste separation is that of earlier years. Residents knew that often segregated waste went to one common garbage truck and there were mixed up. All work involving the segregation of waste at source, that is, where they arose, and went in vain and many Poles became discouraged. Meanwhile, this has changed. Modern vehicles receiving segregated waste typically divide into different septic tanks to which individual waste is disposed. Another solution is to receive each type of waste by another garbage truck. In some municipalities arrangements are containers for selective collection, which must be fully exported to the plant for processing waste, in order to be emptied. Empty containers are replaced in their place. Most often, this solution applies to containers of „bell” or containers mounted under the ground (above the ground is only a small, aesthetically appealing basket).

The program „Our Garbage” is one of the largest national programs. It should be noted, however, that practically every municipality in cyclical activities are carried out in the field of environmental education. They aim to make people aware of how important it is to take care of the proper management of municipal waste.

Many waste such as glass and aluminum are 100% recyclable and can be processed an infinite number of times. In the case of aluminum, it is important that the production of aluminum from ores is relatively expensive and the deposits of bauxite are not renewed. By recycling the glass we can reduce the consumption of sand, dolomite and soda. By putting only one glass bottle into the secondary circuit, we reduce energy consumption by 4 hours to 100 watt incandescent bulbs. Meanwhile, a statistical resident of Poland throws in containers of mixed waste with 56 glass packages a year (<http://naszesmieci.mos.gov.pl>). It is worth to change habits and to dump less.

Plastics are made from petroleum derivatives. Instead consume oil, whose resources are limited and the production is very expensive, plastics can be reused – as a high-calorie source of energy or as a secondary raw material. For example, from 35 popular PET bottles, you can make a fleece sweatshirt. Plastic can also be

processed into other specialized or athletic clothing, and tents, backpacks and boots are also created. To save a tree, only 59 kg of waste paper is enough (<http://naszesmieci.mos.gov.pl>). If the product has to be packed, choose the ones that can be easily recycled (Zarębska, 2014). It is also important to remember that transporting products first and then waste later also has negative environmental impacts (Bajdor, Ulfik, Nowak, 2014). If possible, choose products and goods, which are produced as close as possible in accordance with the principles of sustainable development (Kot, Ślusarczyk, 2012). Companies should also follow the rules promoted in ecological education (Wysocki, 2016).

Conclusions

It is necessary to continually educate the public on proper waste segregation. The easiest way is to segregate wastes where they arise, and in the case of municipal waste are houses and apartment citizens. A common barrier in this regard is the lack of space for storing of segregated waste. Legal regulations introduced in Poland in this area have arranged the principles of waste segregation. Many municipalities have decided to significantly raise prices for waste collection from residents who declare that they do not want to segregate waste – often this price has doubled. Such a way of “encouraging” the segregation of waste, in many municipalities has brought very rapid results in the form of avalanche changes in declarations regarding the segregation of waste.

Introducing the waste division into 5 fractions: paper, glass, metal and plastics, biodegradable waste and mixed municipal waste, gives a realistic chance for residents to fulfill their obligations to separate waste collection. From local governments depends, however, to what extent they will facilitate the residents of separately collected waste collection, including scheduling reception facilities. For residents the most convenient solution is frequent collection of waste, due to the lack of need for their long-term storage (the need to have storage space and inconvenience associated with the stench). On the other hand, keep in mind that each waste collection are real costs that will have to bear the residents. Compromise on waste separation is much easier to understand when residents have knowledge of municipal waste management and understand the need to recycle waste. Eco-education is an indispensable factor in this case, giving real benefits to the inhabitants and the environment.

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THEORETICAL ASPECTS OF INNOVATION IN HEALTH TOURISM

ALEKSANDER PANASIUK

Jagiellonian University, Faculty of Management and Social Communication, Institute of Entrepreneurship,
Entrepreneurship in Tourism Department, POLAND
e-mail: aleksander.panasiuk@uj.edu.pl

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ABSTRACT

The health tourism market has high susceptibility to innovation. This is due to the functioning of not only tourism enterprises on this market, but above all the providers of medical services. This market is characterized by high development dynamics. The services are provided at all market levels from local, through regional, national to global. The objective of this study is to identify the entities of the health tourism market which are responsible for introducing innovative offers on that market. Firstly, the theoretical issues are described concerning tourism market innovations and the structure of the health tourism market. This enabled the identification of the areas of innovation on the health tourism market. The conducted research is conceptual.

Introduction

Innovations are a key instrument for the development of the tourism market structure. The health tourism market is particularly affected by innovation. It is a result of highly dynamic development of this market on a global level but also of the engagement of many entity groups who are participants of that market. Apart from tourism market entities, medical market entities have a decisive role in terms of implementing innovative solutions. Health

tourist destinations play a significant role in the adoption of innovations on the health tourism market as they develop territorial products of health tourism, including: medical, health resort, spa & wellness and aesthetic medicine tourisms.

The objective of this study is to identify the entities of the health tourism market which are responsible for introducing innovative offers on that market. Firstly, the theoretical issues are described concerning tourism market innovations and the structure of the health tourism market. This enabled the identification of the areas of innovation on the health tourism market. The conducted research is conceptual. The following research methods were applied: a critical analysis of sources, logical and heuristic operations.

Innovations on the tourism market

Innovations are an important factor for shaping and developing modern markets. According to traditional views on the notion of innovation formulated by J. Schumpeter (1960) in relation to the functioning of the market, the term innovation means a combination of the following factors, with their functional interdependencies:

- launching new products or improving existing ones,
- implementing new or improved production technology, including new methods of providing services,
- introducing new ways of selling and buying, including new ways of creating interaction with customers, together with appropriate customer care systems,
- opening a new market, both in terms of supply, production or sales,
- using new raw materials, materials and tools,
- implementing changes in the organization of production, including changes in the organization of the service providing process (Niedzielski, 2008, pp. 230–232).

Innovations are one of the key elements of increasing competitiveness and achieving market success in the knowledge-based economy. When taken in a general view, one may regard innovation as a process of introducing new products, ideas or way of acting. Thus, these would include all positive implemented changes which are perceived as new from the perspective of the entity that introduced them (Kalinowski, 2010, pp. 13–18). Innovations are connected with creating new market offers. However, normally these are not completely new products but rather improvements of already existing products (Westland, 2008, pp. 42–43), which are given new practical values or increased quality parameters. Thus, the vast majority of innovations consists in creative imitation of already existing solutions. Creative imitation focuses particularly on the consumer needs and starts not from observing the product but the market (Drucker, 2000, pp. 254–255).

Typical innovative undertakings in terms of services include:

- creating new service concepts,
- new forms of cooperation with the client,
- new systems for providing services,
- using modern IT solutions (Den Hertog, 2002, pp. 226–231).

The following types of innovation can be distinguished as a result of introducing new concepts for business operation on the market:

- product,
- process,
- organizational (managerial),

- marketing (Niedzielski, 2013, p. 29),
- institutional (Hjalager, 2010, pp. 1–12).

Similarly, as on any other markets, innovation plays a key role on the tourism market in achieving sustained competitive advantage by entities from the supply side of the market (Szymańska, 2013, pp. 146–148). The ongoing globalization processes demand not only increased innovation activity from tourism enterprises but also from tourist destinations as it determines their survival and further growth and development. Business operation of entities on the tourism market imposes the necessity to develop different types of innovations complementarily (Golebski, 2007), as tourism enterprises (mainly micro, small and medium) vary in terms of their level of innovation, which, among other things, depends on the business strategy used, type of business, staff qualifications and market environment (Gancarczyk, 2012, p. 105).

Tourism enterprises have a decisive role in the development of tourism market innovation. The innovation of tourism enterprises is determined by independent actions of these entities but also by sources of innovation that come from: suppliers, competitors, employees, consumers (Peters, Pikkematt, 2005), advisory and consultancy firms (Wszendybył-Skulska, 2010, p. 622), tourism policy entities. The actions of tourism policy entities may be a source of innovation for tourism entities as they develop pro-innovation policies aimed at the tourism market, in particular at tourism entrepreneurs. Furthermore, tourism policy entities may conduct innovative actions on their own. It should be noted that one of the main means of introducing innovation to the operations of tourism market entities is modern information technologies (Prahalad, Krishnan, 2010, p. 15).

Innovation processes on the tourism market are also a result of the actions undertaken by tourist destinations (Panasiuk, 2013a, pp. 267–277). They are directly connected to the public system (local authorities) and implement tasks related to the tourism policy. The entities representing public authorities impact innovation through developing a network of connections between entrepreneurs and tourism organizations from an area which has tourism values and attractions, tourism infrastructure and where tourism services are provided. The public entities' role in a tourism area is to establish an optimal, under specific circumstances, configuration of competitive advantages (Jaremen, Rapacz, Gryszel, 2010, p. 166) and as a result to implement an innovation policy. The main goal of innovation policy on the tourism market should involve the state's influence on the structure of that market through strategic actions. The innovation issues can be found in strategic documents as priorities and actions with a defined funding scheme, but in practice they are mainly funded through the European Union's structural funds (Panasiuk, 2014a).

Innovations lead to the development of a new tourism market, mainly with respect to quality, which decides on the market position of the providers of that market and satisfies the needs of consumers-tourists to a greater extent. Thus, innovations directly affect the market structure and drive the market development both in terms of offer creation and consumption (Panasiuk, 2014b, pp. 246–247).

Health tourism market

One of the tourism markets is the health tourism market. This market is determined by reasons for tourism, i.e. trips which main or complementary aim is to improve health and physical and mental condition of a tourism participant. The health tourism market is also a special industry encompassing in its activities elements of other tourism industries, mainly the hotel industry, however, with an equal involvement of medical industries, i.e. medical treatment, including wellness.

A special nature of health tourism mainly results from an aim of and reason for a trip to destinations where medical services are offered and to health resorts as well as from needs to use services provided by these enterprises.

The main reasons for health tourism include:

- a) with respect to medical tourism, including aesthetic medicine:
 - receiving medical treatment, often one that includes invasive procedures,
 - receiving planned medical procedures, including dentistry,
- b) with respect to health resort (Gaworecki, 2000, p. 36) and spa & wellness tourisms:
 - renewal of vital strength, as a result of staying in a particular tourist destination,
 - improvement of health and well-being,
 - active leisure.

Defining health tourism as all relationships, activities and phenomena which result from stays of people having medical treatment, including spa treatment, and from travels to medical tourist destinations and health resorts and returns to their places of living (Kaspar, Ferlich, 1979; Kornak, 1999, p. 21) constitute the grounds to identify the essence of health tourism and, next, to indicate its elements of the subjective and objective structure. In objective terms, the health tourism market is a process in which customers (tourists, patients, spa guests) and service providers (providers of tourism and medical services as well as health and wellness/medical tourist destinations and health resorts) specify the subject of the market exchange which constitutes tourism and medical (health resort) services offered at defined prices and conditions (Panasiuk, 2013b, pp. 9–22).

The main entities operating on the health tourism market are in terms of supply (Szymańska, Dziedzic, Panasiuk, Panfiluk, Rutkowski, 2017, pp. 80–90):

- enterprises providing medical services (hospitals, plastic surgery clinics, treatment centres, clinics and analytical laboratories),
- health resort enterprises (health resort treatment facilities, e.g. sanatoriums, natural healing facilities),
- entities providing spa & wellness services, both hotel businesses as well as entities for which these services are their core business,
- tourism enterprises operating in a tourist destination and offering their services both to health tourists and other tourists (incl. hotel, catering, transport, inbound tourism movement travel agencies, tourist attractions),
- specialized tourism enterprises operating in tourism areas, tourism organizers servicing the health tourism segment, intermediaries and tourism agents selling comprehensive packages or focused solely on brokerage and service in terms of medical services,
- enterprises offering health tourists, including spa guests, para-tourism services which main function is to satisfy needs of permanent inhabitants of health tourist destinations, including health resorts.

It should be noted that the health tourism market can be developed mainly thanks to the supply elements of the general tourism market. It is complemented by elements relevant to the reasons for health tourism related to the medical offer, that is by those resulting mainly from activities of medical facilities sanatoriums or health resort hospitals but also supported by the activities of local authority bodies in tourist destinations.

When referring to the analysis of the health market structure from the objective perspective, one should mention the following patterns related to:

- demand for health tourism services,
- supply of health tourism services,
- instrumental scope of influence on that market by public bodies.

The demand for the health tourism offer can be classified from an objective point of view taking account of group of patients, especially in terms of financing methods and a choice of places where health services are consumed. These are tourists (including patients, health resort tourists) (Szromek, 2012, pp. 188–190) using:

- medical offers (also in health resorts) in health tourist destinations, incurring costs on their own and choosing a place and service providers independently,
- medical offers financed by a health insurance purchased independently (Cohen, 2012, pp. 9–20),
- offers of health resort tourism funded or partially funded by social insurance thanks to which patients have a possibility of a limited choice of places and dates of a stay as they are referred to a health resort on the basis of a doctor's referral.

Health tourism supply demonstrates slightly different features than tourism supply in a broad sense. The expansion of current medical tourism influences the global economy significantly. The most essential issue is the difference in production capacity and costs of services between developed countries (e.g. the USA, Germany, the UK) and developing ones (e.g. Mexico, Brazil or Central and Eastern European countries). The greatest mobilization of health tourism offer can be observed in developing countries where entities of this market try to fully exploit financial and human capital of this industry and, at the same time, also receive support from the government.

The characteristic features of medical tourism supply include:

- considerable dependence of the supply structure on demand,
- high qualifications of a personnel servicing health resort tourists,
- high availability of information on the offer (especially online),
- high-quality services and management system of health resort tourists,
- a great complementary character of supply of medical and tourism services,
- progressive liberalization of regulations facilitating free international movement of tourists and use of health services,
- high capital intensity,
- very low level of seasonality (Rab-Przybyłowicz, 2014, pp. 38–41).

Supply of the health tourism market includes medical and tourism services which may be the subject of the market exchange as separate services or in the form of a package. Offers are developed by entities of the medical industry, tourism industry and comprehensively by health tourist destinations. The discussion on these issues will be continued in the next subchapter.

A special role on the tourism market is played by public entities which implement tourism policy. In these deliberations, these are also public entities responsible for social health protection policy. Every country has its own legal regulations concerning a healthcare system and the availability of the system for their own citizens as well as rules of financing from public and/or private sources. Additionally, the scope of specific medical services which can be provided in particular countries as well as those which are illegal due to ethical or religious reasons should be listed.

Identification of innovation areas on the health tourism market

The analysis conducted on the health tourism market structure showed that it is the market which is well-developed in terms of offer as well as entities creating it and the market participants representing the demand side and demonstrating various reasons for using health tourism services. This market is very competitive at all levels, from the global, through the continental and to the national and regional ones.

It is significant to stress that the elements of the health tourism market structure adopt innovations. In this respect, the most essential role is played by entities of the supply side of this market and the offer developed by them in terms of health tourism. The following entities should be mentioned in particular:

- medical market entities (e.g. hospitals, sanatoriums, spa & wellness centres),
- tourism market entities (e.g. hotels),
- specialized entities of the health tourism market (i.e. tour operators creating health tourism offers and travel agents) that combine elements of medical and tourism services into an integrated package,
- health tourist destinations, together with health resorts (countries, regions, cities and smaller towns), which, in order to promote health tourism offers of their areas, should search for original solutions, for example those combining medical services provided by commercial entities with original tourism-oriented offers.

Moreover, a health tourism product has a direct influence on developing innovations in the health tourism market. This definition encompasses all goods and services which can be purchased in health tourist destinations, including health resorts, enable tourists (patients, spa guests) to arrive and stay there (tourism services), and use health services (medical services) (Kraśiński, 2001, p. 29).

A health tourism product is diverse depending on the scope of resources and services available in a tourism area and functioning of submarkets: the medical tourism, health resort tourism, spa & wellness tourism, aesthetic medicine tourism markets. Theoretically, it can take a comprehensive structure, however, in market practice, such a product should be analysed separately for specific types of offers, i.e. a product of (Szymańska et al., 2017, pp. 93–96):

- medical tourism,
- health resort tourism,
- spa & wellness tourism,
- aesthetic medicine tourism.

In the structure of all of the listed product types, there are common elements resulting from tourism area potential and connected with service of every tourism form, that is tourism values (natural and cultural), tourism base (accommodation, catering, transport, additional ones) and typical tourism services. Elements connected with particular types of a health tourism product result mainly from resources and services of a medical nature. These are specialist elements of given product types. Their diversification concerns especially services provided to health tourists, but also elements of tourism facilities and values.

A health tourism product or, in fact, partial products of medical, health resort, spa & wellness as well as aesthetic medicine tourisms are a fundamental subject of influence of health tourism entities in terms of developing innovations. Innovations can concern not only direct product-related aspects, but also organizational (means of servicing health tourists), marketing (means of addressing an offer to groups of consumers) or institutional which is essential when building partnership in health tourism areas between entities offering services.

Conclusion

The issue of innovations in the health tourism market concerns especially supply aspects as it is mainly connected with natural resources and capital resources, including infrastructural, human, informational and technological ones. These issues chiefly concern a size and structure of tourism movement, especially anticipation of needs of tourists who present their future expectations in terms of health tourism in tourism reception areas. Thanks to innovations, a new health tourism market, mainly in terms of quality, is created and it determines a market position of the market providers as well as better satisfies needs of consumers, i.e. tourists and patients. Therefore, innovations directly influence the structure of this market and are the driving force of development from the point of view of offer creation as well as consumption.

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CORPORATE INSOLVENCY IN EUROPE

MAŁGORZATA PORADA-ROCHOŃ

University of Szczecin, Faculty of Management and Economics of Services, POLAND
e-mail: malgorzata.rochon@wp.pl

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ABSTRACT

Introduction: The insolvency of enterprises is considered both from a macro and microeconomic viewpoint. Enterprises identify insolvency in the period of the largest economic boom and more often in the periods of economic instability and crises or recession, due to the increasing risk of its occurrence. In addition, the importance of insolvency is crucial from the viewpoint of the potential effects of economic bankruptcy and bankruptcy from a legal viewpoint.

Research Objective/Hypothesis: The aim of this paper is to analyze selected aspects of the corporate insolvency in Europe. The first objective is, to determine whether the cost and time of the insolvency proceeding are shorter in OECD countries when compared to others in Europe. The second objective is to identify Poland's position according to the aspect of insolvency, in the context of the countries surveyed. Hypothesis: There is relationship between high income in OECD countries and recovery rate.

Research methodology: The data comes from the Doing Business 2018 report. It was used Spearman correlation.

Findings: There is a need for continuous improvement of legal systems to facilitate resolving insolvencies. There is moderate correlation (Spearman) at approx. 0.69 between high income in OECD countries and recovery rate. It is statistically significant correlation (p -value < 0.05).

There are two weak negative (downhill relationships) correlations (Spearman) between high income in OECD countries and time (first relationship) or cost (second relationship).

Introduction

The subject of insolvency is widely described in the literature of the subject, both from the theory viewpoint and economic practice. Apart from financial disruptions and bankruptcies of enterprises, considerations in the theory of economics (the object of which is insolvency), are rich achievements in the literature of the subject. The insolvency of enterprises is considered both from a macro and microeconomic viewpoint. Enterprises identify insolvency in the

period of the largest economic boom and more often in the periods of economic instability and crises or recession, due to the increasing risk of its occurrence. In addition, the importance of insolvency is crucial from the viewpoint of the potential effects of economic bankruptcy and bankruptcy from a legal viewpoint.

The scope of defining insolvency is wide and there are inconsistencies in the scope of application as well as the understanding of this concept, but also in the scope of measuring insolvency. One of the reasons for this is the dichotomous approach to insolvency, i.e. economic and legal.

Many factors which are difficult to predict exist in the modern economy, so it is not easy and often impossible to identify and counteract them. Insolvency should be treated more broadly than just as a loss of ability to pay liabilities. Insolvency issues should be treated as a whole, taking into account liquidity problems, capital structure, as well as searching for external factors that often surprise entrepreneurs (Franc-Dabrowska, Porada-Rochoń, 2014, p. 12).

Considerations of economic theory, the subject of which is the issue of insolvency, are relatively modest achievements in the literature of the subject. Such state is caused by, among others, multiplicity and diversity of approaches to the definition of insolvency, lack of coherence in the methodology of its diagnosis and ways of counteracting their effects and minimizing them. The lack of coherence also applies to the identification of tools that effectively and relatively easily identify the growing risk of insolvency.

The aim of this paper is to analyze selected aspects of the corporate insolvency in Europe.

The first objective is, to determine whether the cost and time of the insolvency proceeding are shorter in OECD countries when compared to others in Europe. The second objective is to identify Poland's position according to the aspect of insolvency, in the context of the countries surveyed.

The paper is structured as follows: Section 2 Theoretical review, Section 3 explores the method followed, describes data sources and outlines how to measure the variables used in the analysis, presents hypothesis; Sections 4 presents and discuss the results obtained and Section 5 presents the main conclusions.

Literature review

It is generally assumed that insolvency is an economic and financial situation of an enterprise that prevents it from covering liabilities to creditors. There may be many reasons for the insolvency of enterprises (Leksykon..., 1991, p. 49). The lack of possibility to repay liabilities with owned assets indicates Łodziana (2003, p. 25).

One of the key reasons is delay in payment transactions, which in some cases results in payment delays. As Dankiewicz points out, failure to settle receivables on time is not so much a consequence of actual payment bottlenecks on the borrowers' side, how many attempts they have made to replace a working loan with a trade credit in financing current operations (Dankiewicz, 2009, p. 70). An important determinant of insolvency is excessive debt. Another reason for insolvency is level of short term debt. A lack of short term debt can lead to solvency problem.

What is more, the issue of level of cash is highlighted. Excess cash improves trading continuity and liquidity risk. It also adds to the stream of studies on the link between corporate liquidity management and the expected equity returns and that excess cash is an important determinant of the liquidity beta (Huang, Mazouz, 2018, p. 289).

Insolvency can threaten not only the enterprise that is struggling with payment difficulties, but also entities that accumulate excessive cash levels, incurring alternative costs of their passive maintenance, as well as limiting (or even preventing) their development. On the other hand, the risk of insolvency applies to enterprises in which

you do not invest, as well as those that have been reinvested (Franc-Dąbrowska, Porada-Rochoń, Ziolo, Babczuk, 2015, p. 20).

According to the result of research of Diamond and Verrecchia using disclosure to reduce information asymmetry can lead to lower cost of capital by increasing liquidity for a firm's securities (Diamond, Verrecchia, 1991, pp. 1325–1359).

Recently, the issue of payment discipline and payment morality has been also highlighted, which results in a domino effect or the contingency effect causing a chain of insolvency (Maćzyńska, 2017, p. 9–10).

According to the surveys of Franc-Dąbrowska and Porada-Rochoń (2014), insolvency should be treated broadly, not only as perceiving it as a loss of ability to pay liabilities. The problem of insolvency should be considered as a whole, with the simultaneous examination of liquidity, capital structure (equity resources) and the external factors should be considered as well. It is difficult to quantify them unequivocally, as these are variables often unexpected for entrepreneurs, and have their source in globalization processes and turbulent environment (Franc-Dąbrowska, Porada-Rochoń, 2014, p. 265).

According to the Euler Hermes Report, in the year 2017, 900 companies in Poland were declared insolvent, by 12% more than in 2016. The reason for insolvency is prolonged payment dates and lack of financial security due to low margins. The main problems of entrepreneurs are prolonging payment terms and increasing payment delays.

The consequence of insolvency of enterprises may be bankruptcy in the economic sense or bankruptcy in the legal sense. The rest of the article will be devoted to the solutions and results of the insolvency in the legal sense.

The major precedent for getting into insolvency process/procedure/operation in the countries like Romania, Bulgaria, Poland, Hungary, Czech Republic and Slovakia is deficiency of liquidity and the lack of ability of a company to pay its present debts. In the case of Hungary this norm is the only one which causes the start of proceedings. In the case of Bulgaria, Czech Republic, Poland and Slovakia indebtedness brought in as a benchmark for opening insolvency operations/procedures. That is to say, those emerging countries of Eastern Europe followed the German model. Yet, the motivation of this criterion is difficult, given the differences between market value and book value of assets (Dăianu, Pişlaru, Voinea, 2004, pp. 37–58 in Georgescua, Baciub, 2014, p. 785). The country which does not apply those criteria in order to start the insolvency proceedings is Romania. Czech Republic or Romania gave the debtor the opportunity to rearrange because of introducing an imminent insolvency criterion. The aim of introducing this criterion was to encourage reorganizations, in the detriment of liquidations (Georgescua, Baciub, 2014, p. 785).

There are separate laws in Poland existing from 1st January 2016. These acts cover insolvencies and the restructuring of companies experiencing payment problems. The reason of introducing these regulations was willingness to encourage the greater use of restructuring procedures – especially as recovery tools for companies faced with temporary liquidity problems.

Research Methods

The aim is to analyze selected aspects of corporate insolvency in Europe.

Hypothesis: There is relationship between high income in OECD countries and recovery rate.

The data comes from the Doing Business 2018 report and includes the following variables:

1. DTF score for resolving insolvency (0–100) covers recovery rate and strength of insolvency framework.
2. Time to resolve insolvency (years) represents the average time to close a business.

3. Cost (% of debtor's estate) represents the average cost of bankruptcy proceedings. The cost of the proceedings is recorded as a percentage of the estate's value. Measured as percentage of estate value: Court fees, Fees of insolvency administration, Lawyers' fees, Assessors' and auctioneers' fees, other related fees.
4. Recovery rate (cents on the dollar): it calculates how many cents on the dollar claimants (creditors, tax authorities, and employees) recover from an insolvent firm. The recovery rate is calculated based on the time, cost and outcome of insolvency proceedings in each economy. To make the data on the time, cost and outcome of insolvency proceedings comparable across economies, several assumptions about the business and the case are used.
5. Strength of insolvency framework index (0–16) measures the quality of insolvency laws that govern relations between debtors, creditors and the court. The strength of the insolvency framework index is based on four other indices: commencement of proceedings index, management of debtor's assets index, reorganization proceedings index and creditor participation index.

It was used Spearman correlation.

Results

By analyzing the DTF score for resolving insolvency (Figure 1) responsible for the overall assessment of the effectiveness of procedures, the highest result applies to countries: Finland 92.82, Germany 90.27 Norway 85.94, representants of OECD High income countries Interestingly, from 2011 none of these countries have any changes in the law. Nevertheless, according to the Euler Hermes Report, Finland is characterized by the following issues: The payment behavior of domestic companies is excellent with payments taking place in 25 days on average, and the EU framework provides reliable tools when it comes to late payment; Legal action for undisputed debt is usually resolved quickly (between 3 to 6 months), however, when the debtor's assets are difficult to locate, or the debt is disputed, it can become time consuming. Although, the insolvency law aims at rescuing companies facing financial difficulties to increase repayment possibilities, most reconstruction procedures spread over years (or fail) thus leaving the creditors with no or very few dividends, while liquidation procedures leave very low recovery chances to unsecured creditors (Doing Business..., 2017).

Sweden and Germany can really serve as models, being countries with the lowest complexity of local payment practices, local court proceedings and local bankruptcy proceedings (Euler Hermes, 2018).

Out of the 41 countries, Poland took 27th place with a score of 77, 71, with an average of 68. This is a good result, however in subsequent years it should improve due to changes that have been reported in 2017 in the field of law (Figure1).

The weakest result was recorded by: Ukraine 28.24; Malta 38.07. In the 2014, Ukraine made resolving insolvency easier by strengthening the rights of secured creditors, introducing new rehabilitation procedures and mechanism. It made invalidating suspect transactions easier and shortening the statutory periods for several steps of the insolvency process.

With reference to Recovery rate, the highest score was recorded in the case of Norway 93.1; Netherlands 89.7; Slovenia 88.7. Poland recorded 63.1 with an average of 57.83. The lowest level of this meter is assigned: Ukraine 8.9.

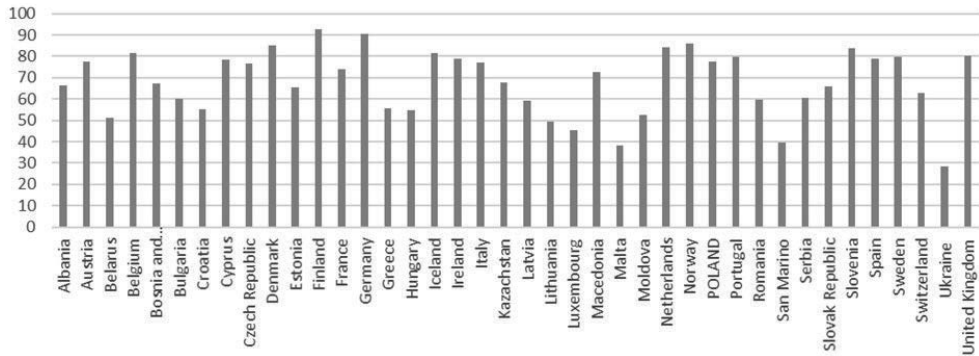


Figure 1. Dtf score for resolving insolvency, 2018

Source: own elaboration on the basis of Doing Business... (2017).

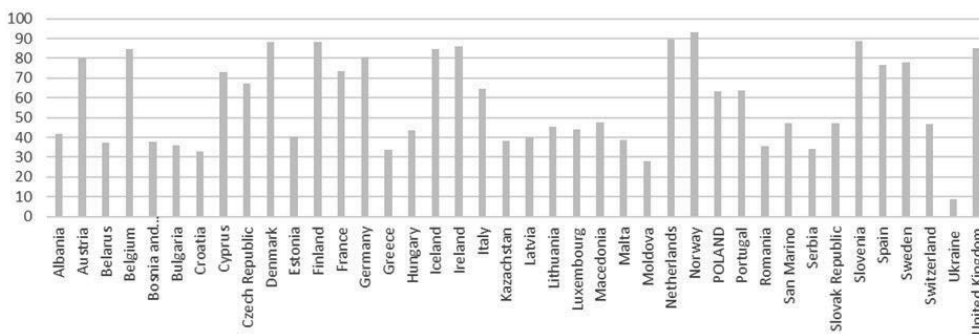


Figure 2. Recovery rate in European countries (cents on the dollar)

Source: own elaboration on the basis of Doing Business... (2017).

There is moderate correlation (Spearman) at approx. 0.69 between high income in OECD countries and recovery rate. It is statistically significant correlation (p -value < 0.05). There is downhill relationship between time and recovery rate at approx. 0.76 – high negative correlation (Spearman and statistically significant). At the same time was moderate negative (downhill) relationship between cost and recovery rate: cost increased and recovery rate decreased, or conversely.

The high level of this measure is probably caused by the early detection of irregularities in the financial condition and the implementation of liquidation procedures. A higher level of the recovery rate can be related to a large commitment and cooperation with stakeholders, as well as owning early warning systems. McGowan with team (2017) indicate, among others, two important issues: lack of prevention and streamlining (include: the lack of early warning mechanisms, preinsolvency regimes and special insolvency procedures for small and medium-sized enterprises), as well as barriers to restructuring (include: creditors' inability to initiate restructuring, an indefinite stay

on assets, lack of priority given to new financing, no cram-down of restructuring plans on dissenting creditors and the dismissal of incumbent management during restructuring (McGowan, Andrews, Millot, 2017, p. 9).

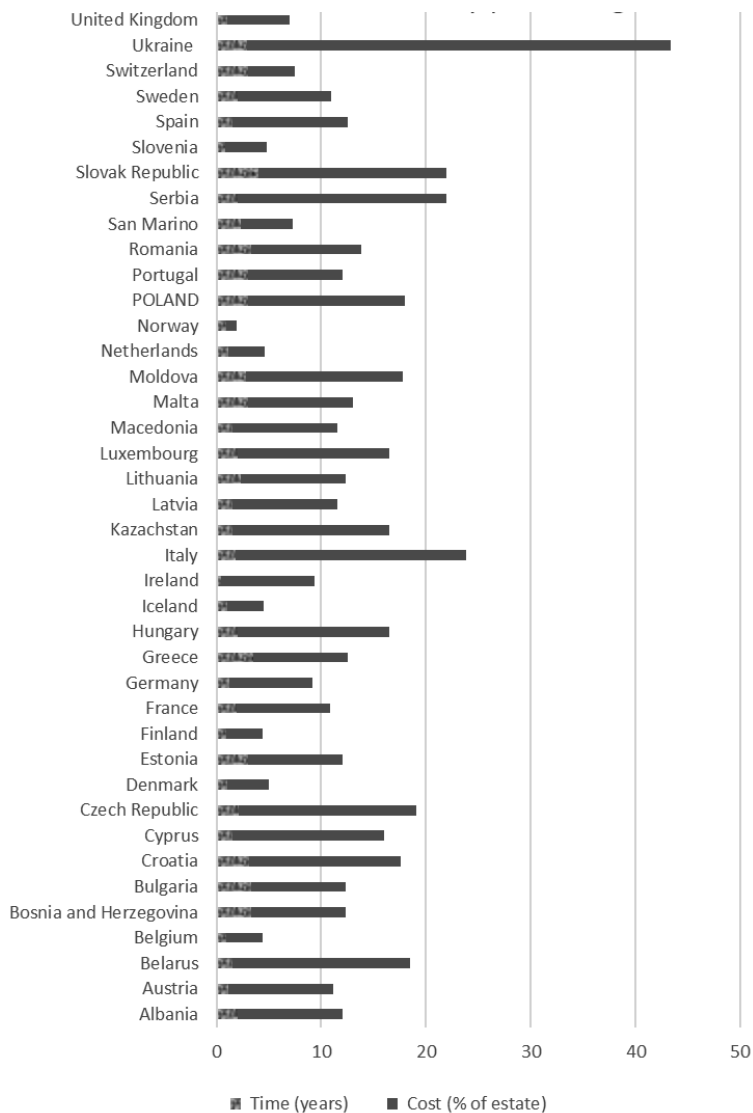


Figure 3. Time and cost of insolvency procedure in European countries

Source: own elaboration on the basis of Doing Business... (2017).

The results of the study indicate that in the case of Poland, while analyzing 2016 to 2010, no changes occurred. Significant improvement in the field of lack of prevention and streamlining results was recorded in Finland or Greece.

According to the time and cost of insolvency proceeding (Figure 3) the greatest dispersion is visible in the case of the duration of procedures. The longest insolvency procedure lasts 4 years in Slovak Republic, 3.5 years in Greece 3.5 and 3.3 years in Bosnia and Hercegovina as well as in Bulgaria and Romania. In Poland, the time of insolvency proceeding is 3 years. From the viewpoint of the company functioning on the market, it is a very long period. After this time, there is practically no possibility of continuing operations. Perhaps a change in legal regulations in Poland will shorten this time which seems to be an important element is the mentality of entrepreneurs who do not operate as soon as possible after identifying liquidity problems.

Overloading time generates further problems and increases the risk of insolvency. In Ireland the time is 0.4 of the year, in Finland 0.9.

As far as the cost is concerned, the results are not so scattered, except for extremely high result in Ukraine: 40.5% of estate. The lowest cost is borne in Norway 1%, Belgium, as well as Netherlands, Finland, Iceland 3.5%. In Poland the cost is relatively high 15%.

It was also found, that there are two weak negative (downhill relationships) correlations (Spearman) between high income OECD countries and time (first relationship) or cost (second relationship).

Conclusion

The crisis of 2007 highlighted the scale of enterprises insolvency. Unfortunately, the scale of this phenomenon does not decrease, but increases. As far as insolvency is inevitable in the case of so-called “Zombie Corporates” which are low-productive and unprofitable, in the case of stable, productive enterprises, this is a destructive phenomenon involving a number of risks and negative effects for the enterprise, stakeholders and the economy.

Therefore, there is a need for continuous improvement of legal systems to facilitate resolving insolvencies. The tools and actions to predict dysfunctions in the financial economy in the early stages are also needed. It is also necessary to strengthen the cooperation between debtors and creditors in order to limit the negative consequences of insolvency. Finally, there is a necessity to change the mindset of managers who will react immediately to any signs of deterioration of their financial condition so as not to lead to insolvency.

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MODERN MOBILE TECHNOLOGIES AS THE SUPPORT FOR UNIVERSITY STUDENTS IN THE LEARNING PROCESS

ALEKSANDRA PTAK,¹ PAULA BAJDOR²

Czestochowa University of Technology, POLAND

¹ e-mail: olaptak@gmail.com

² e-mail: paula.bajdir@gmail.com

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ABSTRACT

Students of the generation Y actively use new technologies every day, communicating mainly through social media with the help of smartphones or tablets. Thanks to the development of new media, modern students have at their disposal a wide and comprehensive range of tools to improve information, communication, education and integration of the academic community. The purpose of this article is to review the modern mobile applications that assist students in the learning process. The article is enriched with the results of the research conducted among students of the Czestochowa University of Technology, which aim was to determine their level of knowledge on mobile applications dedicated to higher education, the level of interest in them and the scope of their use by students. For this purpose, the authors conducted a survey among 181 respondents. For the research, non-random method of sampling – convenient sampling was chosen.

Introduction

Internet users increasingly use mobile devices and hence the services available on them. It can be said, that it turns into a constant trend. Mobile devices are nowadays the main source to meet needs of their users, thanks to them, users communicate, obtain information, read, buy, watch movies, manage time and many others. Such a situation forces the development of solutions adapted to the limited functionality of mobile devices and

their small screens. More and more service providers adapt their offer to the lifestyle and needs of its customers (Poradnikprzedsiebiorcy, 2017). Among the solutions developed, in addition to mobile websites and responsive sites, mobile applications have emerged. The most popular mobile applications on Android and IOS, in 2016, according to Gemius, are sequentially (Mobirank, 2016): Google, YouTube, Messenger, Facebook, Google Maps, Gmail, Google Drive, Google +, OLX and WhatsApp.

Mobile device users — Smartphonisation of Poles

Without a doubt smartphones are the most used mobile devices these days. According to research results in the report *“Polska jest Mobi”* (2015), having regard to data from June 2015, smartphonisation in Poland was 58%, this means that almost 19 million Poles aged 15+ had smartphones (for comparison, tablet penetration in Poland in the same period was 21%). Within this group, 61% were women and 55% men. As far as Internet users are concerned, men are more likely to be equipped with the smartphone. As far as the operating system is concerned, the unquestioned market leader in Poland is the Android operating system, about 65% of Polish smartphones are equipped with it. Another place belongs to Windows Phone (16%). Only 4% of respondents have smartphones with IOS operating system. 12% of smartphone owners do not know what is the operating system of their smartphone. Smartphones are by their users constantly. According to statistics, people spend the least time on these devices between 2 and 5 a.m. Poles spend almost 3 hours with mobile devices every day. The longest time with the phone falls on the morning, just after waking up and during breakfast and in the evening from 7 to 8 p.m. When using the smartphone, consumers use it for tasks that require an Internet connection. According to research results, we use the Internet every day for about 2 hours long. Smartphone users consciously use mobile applications, they do not download them by accident or just in case - if users already install an application, they do it when they are convinced that it will play an important role. When no longer needed, it is removed from the device to make room for another one.

Mobile applications for students

Students, right after the youth aged 15–19, belong to the most active group of Poles, taking into account owned mobile devices. In 2015, 88% of young people aged 20–29 years had the smartphone. Currently, on the market, many mobile applications are available (both payed and free), which may benefit students during the academic year. For the purpose of this article, the authors analyzed modern mobile applications, available on the most popular platforms: Android, IOS, Windows Mobile, which could be used by students of the Czestochowa University of Technology, during the learning process. The applications have been divided into six categories.

Applications for scanning and storing data

Office Lens – free application, which allows to crop and retouch images and documents and increase their legibility. Optimization of the documents scan function at an angle will automatically straightened all the images. With the use of Office Lens it is possible to convert scans/images to PDFs, Word and PowerPoint files, and even save images in OneNote or OneDrive. It was considered one of the best mobile applications of Microsoft (Kotkowski, 2015) and is available for Android, Windows Phone and IOS.

PDF Documents Scanner – free application, one of those, which allow to store scans in the memory of the mobile device. With the PDF Scanner application, one can tidy up scans/images and make them easy to get to. Thanks to special filters, all the images are very clear, each page can be converted to PDF format, which can greatly facilitate the transfer and transmission of collected data. The application also allows to merge multiple scans (any quantity) into the one document (Stecklein, 2014). It can be installed on Android devices.

Time management applications

My Study Life – School Planner. Another free and easy to use application. It is a cross-platform dedicated to students and teachers. It allows to store all the data in the cloud and makes them available on any device, no matter where the person is. The application allows to introduce and easily control the schedule. Exercises, lectures or labs are displayed in a friendly, tiled form (Luzak, 2016). The application can be installed on Android, IOS, Windows Phone devices.

Evernote – free application. Evernote is at the forefront of time management solutions, often referred as “life management” application. The tool gives the ability to: create notes, lists, save results, organize images, articles from the Internet, documents or sound recordings, and search the text. The application also helps to keep track of expenses by organizing bills and even planning trips (booking tickets or reservations) (Majchrzyk, 2016). It can be installed on Android, iOS, Windows Phone devices.

Applications for storing data in the cloud

DropBox – free application, which provides the ability to edit, share, synchronize files in Excel, PowerPoint or Word. Users of several devices can have them updated, on the servers of the service provider is available backup. File transfer is intuitive, uncomplicated, and one does not need to have account in Dropbox. The application offers 2GB of storage space (Brzozowski, 2011). It can be installed on Android, IOS, Windows Phone devices.

SugarSync – free application, it give the ability to send files to the service via email (by sending a file to a special address) and the ability to synchronize multiple folders and multiple devices – SugarSync lets to share folders with other users of the service. With the application one can synchronize images from the mobile phone or even play mp3 tracks. The free account offers 5GB of space for files (Trajdos, 2011). SugarSync is available on all existing mobile platforms.

Applications for mathematicians

Kalkulator Plus – free application, giving access not only to basic calculations such as addition, subtraction, multiplication and division or roots, but also to trigonometric functions, integrals or percentages. It has an intuitive interface, and shows exactly what the person is doing (Cyganek, 2015). Application for Android and IOS.

WolframAlpha – the only paid application in the list, it can calculate numerical, symbolic and algebraic expressions. Thanks to the application one can solve complex differential equations, it will show the next steps leading to the result, visualizations, graphs. The tool can also visualize statistics data as well as show data about the world (Połowianiuk, 2014). The application for Android, IOS and Windows Phone.

Applications for learning foreign languages

Speeq – free application. The application offers vocabulary at four levels of learning (4800 cards), with three unique learning modes: Memorizing, Writing, Repetitioning. It gives the ability of creating own collections from the selected vocabulary. Thanks to Speeq, a few people can learn on one device. All words and phrases were recorded by native speakers. The Unique functionality of the application are the so-called memory anchors – thanks to these short connotations, the user quickly assimilates the most difficult words or phrases (Gryplikacje, 2016). The application can be installed on Android and IOS.

T-Translator – free application based on Google translator and supports 72 languages. Words or phrases can be entered not only using the smartphone's keyboard – in the case of dozens of languages, speech recognition is also available. Translate phrases can be read by the speech synthesizer (SpidersWeb, 2013). The application is available on Windows Phone.

Applications involving students

Exit Ticket – free application for both students and lecturers. The application was designed by teachers to engage students and accelerate their achievements. The application is based on gamification - students in real-time solve tasks, surveys, quizzes and exams, etc (Swacha, 2015). They are constantly evaluated and can see their results individually and against the background of the rest of the group (Ptak, Lis, Bajdor, 2016). This application encourages students to learn and gain better grades (Owczarek, 2015). The application is available for Android devices.

iTunes U – free application for students and teachers, with a function of giving homework, an integrated journal of evaluations and private discussions. The application makes it easy to conduct classes, assess tasks as well as streamline communication through the use of iPhone, iPad or iPod. iTunes U allows teachers to create and manage educational courses and share them with users around the world. With iTunes U students have access to the world's largest free educational content catalog, prepared by universities such as Cambridge, Harvard, Oxford, and Stanford (Owczarek, 2015). It is available for IOS devices.

The research methodology and the research results

The research on the use of the Internet on mobile devices and knowledge on mobile applications dedicated to students while studying, was conducted among students of Czestochowa University of Technology from April to May 2017. For conducting the study the authors chose convenient sampling. It was also dictated by the fact that respondents represent the most active group on the market of mobile devices and applications, which minimized the risk of incorrect interpretation of questions.

The questionnaire in total consisted of 9 questions. The first three of them were about the sex, age and the studies degree of the respondents. Other questions were related to the owned mobile devices, the frequency of Internet usage on mobile devices, most used mobile applications while studying and advantages of mobile applications dedicated to students.

It was one-off survey, the questionnaire was in a form of paper, and it was handed over to fill by the respondents. All the survey questions were closed questions, five of them were questions of a single choice and four were questions of multiple choice (up to 3 answers). All of received questionnaires were filled out correctly.

The tested group consisted of $n = 181$ students (104 men and 77 women) of three fields of study at the age of 18 to 35 years. They were students of 1st degree studies and 2nd degree studies, studying in full-time. 81% of respondents were students of the first degree studies and 19% of them were students of second degree studies. According to the research results, each respondent has a smartphone, additionally 58% of students declared to have tablet, and 53% have laptop. 15% students have iPad and 2% of them use an e-Book reader. As the most popular operating system of mobile device students chose Android (81% of responses). Next places among the most popular mobile operating systems were occupied by IOS (10% of responses), Windows Mobile (4% of responses) and Windows Phone (2% of responses). Also 2% of respondents does not know what kind of operating system has the owned mobile device. All respondents use the Internet on a mobile device every day. The responses for the question on the use of mobile applications dedicated to students, indicate, that 60% of respondents are aware of the existence of mobile solutions dedicated to them and use them in a greater or lesser extent. 40% of students never used such an application, many of them have not even heard of mobile applications that they could use while studying.

Further questions are addressed to respondents who use mobile applications dedicated to students and concern applications, which respondents use while studying.

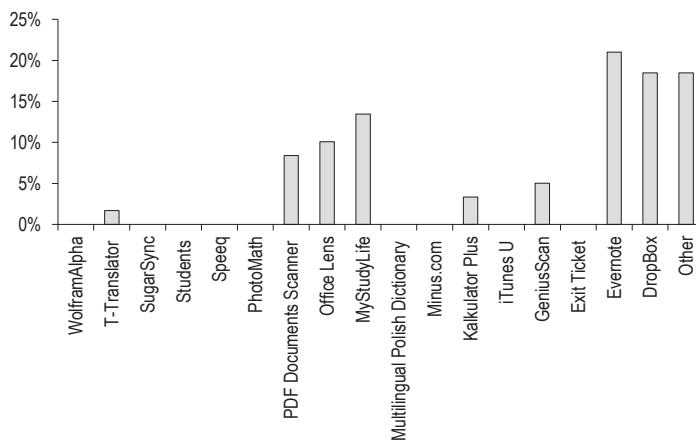


Figure 1. The kind of application used by respondents while studying

Source: own work.

As shown in Figure 1, 21% of respondents using mobile applications while studying, declare using Evernote, 18% of them use Dropbox. Also 18% of respondents have chosen answer „Other” indicating that they are using Google Drive. One person from this group of respondents declared using application Pomodoro for time management.

The last question of the survey refers to the most useful functions of mobile applications for students, according to the studied group of respondents.

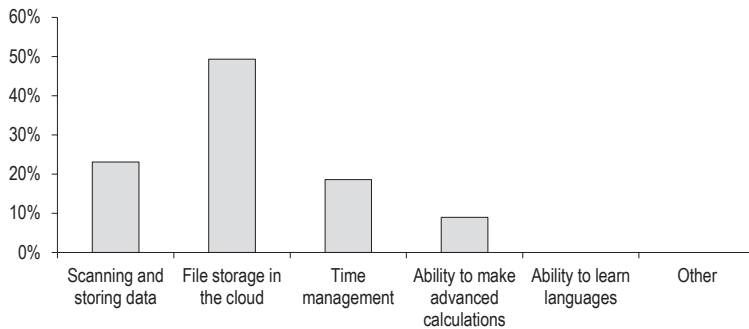


Figure 2. The most useful functions of mobile applications for students

Source: own work.

As it is apparent from Figure 2, the largest number of respondents (49% of students) are of the opinion that the most useful function of mobile applications is ability to *storage different files in the cloud*. Another important function is possibility of *scanning and storing data* in the memory of the mobile device, chosen by 23% of respondents. 19% of respondents are of the opinion that *time management* is also very useful while studying.

Conclusions

The flood of mobile products is unstoppable, the availability of smartphones and broadband wireless Internet is growing steadily. The standard equipment for students are smartphones, tablets, iPads, so it was obvious that mobile applications would soon become available to make learning easier and more enjoyable. The article analyzes available mobile applications and presents tools in each of the categories, which, according to the authors, deserve attention. For the purposes of this article authors conducted the research to know the state of knowledge on mobile applications available for students. As is apparent from the research, 60% of the respondents are aware of applications offered for them on mobile devices. Many of them use such applications while studying, mostly on their smartphones. Students most often use applications to *storage files in the cloud* and for *scanning and storing* different kind of data in the memory of their mobile devices. They are of the opinion, these are the functions of mobile applications, which are most useful for them while studying. Among the large number of applications available to help students in the learning process, respondents indicated that they most often use *Time management applications* such as Evernote and/or My Study Life and *applications for storing data in the cloud* – Dropbox and Google Drive, which was pointed out mostly as “Other”. In the category *applications for scanning and storing data*, the mostly chosen ones were Office Lens and PDF Documents Scanner. Students rarely use applications for mathematicians, motivating this lack of knowledge about them. What is interesting none of the respondents uses involving students app.

Although mobile applications are massively used today, their users should not forget about the threats associated with them. Users of mobile devices, using the Internet, often do not remember to protect them from unauthorized access, by installing anti-virus and firewall. The applications presented in this article are very interesting and undoubtedly helpful in everyday life. One should, however, think whether young people soon will be able to function normally without the help of mobile devices and modern technologies?

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NEW STRUCTURAL ECONOMICS – DISCUSSION ABOUT DEVELOPMENT POLICY BASED ON INNOVATION

MAREK RATAJCZAK,¹ IZABELA BLUDNIK,² DAWID PIĄTEK,³
KATARZYNA SZARZEC⁴

¹ Poznan University of Economics and Business, POLAND
e-mail: marek.ratajczak@ue.poznan.pl

² University of Szczecin, POLAND
e-mail: izabela.bludnik@wzieu.pl

³ Poznan University of Economics and Business, POLAND
e-mail: dawid.piatek@ue.poznan.pl

⁴ Poznan University of Economics and Business, POLAND
e-mail: katarzyna.szarzec@ue.poznan.pl

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ABSTRACT The ongoing discussion in Poland on the design, implementation and coordination of a sustainable development policy based on innovation refers to the research and achievements of co-creators and proponents of the New Structural Economics (NSE). This article presents both the strengths of the NSE research programme, which demonstrate its usefulness in the context of the situation and challenges that Poland is facing, as well as its fundamental weaknesses, which may have a negative impact on the quality of the debate on a long-term development, innovation and competitiveness policy. The NSE recommendations for the development policy should be treated as a starting point which still requires the consideration of many additional phenomena and processes taking place in the social, economic and political environment of a given economy.

Introduction

Poland is facing many challenges, including designing, implementing and coordinating a sustainable development policy. The importance of this matter has been emphasised in two documents presented by the Prime Minister Mateusz Morawiecki, namely *Plan na rzecz odpowiedzialnego rozwoju* (2016) and its continuation and operationalisation *Strategia na rzecz Odpowiedzialnego Rozwoju do roku 2020* (2017). Both documents refer to the

research and achievements of co-creators and proponents of the New Structural Economics (NSE), a framework which is frequently mentioned in the context of the discussion on innovation and reindustrialisation of the economy.

The NSE programme focuses on the real economy, strengthening of its industrial capacity, increasing innovation, improving the condition and quality of political and economic institutions. At the same time, however, the NSE programme is very general; it lacks unambiguous guidelines or practical solutions, which may have a negative impact on the quality of the ongoing debate on the policy of long-term development, innovation and competitiveness in Poland.

The main objective of this article is to demonstrate that the NSE recommendations for the development policy should be treated as a starting point which still requires the consideration of many additional phenomena and processes taking place in the social, economic and political environment of a given economy.

Research programme of New Structural Economics

The New Structural Economics is a new perspective on development economics proposed by Justin Y. Lin (2010), which the author calls *Development Thinking 3.0*. NSE combines a neoclassical approach with some elements of the so-called old structuralism. Economic development is considered as a process of continuous technological change, innovation and transformation of the economic structure. The leading figures of NSE include such authors as: Dani Rodrik (2003, 2009, 2010), Ricardo Hausmann and Andrés Velasco (Hausmann et al., 2008), Philippe Aghion (2009), Ann Harrison (2010, 2011, 2014), Célestin Monga (Lin, Monga, 2012, 2012b).

NSE is based on three ideas (Lin, 2010):

1. Economies at different stages of development vary in terms of the availability of production factors and structure (capital intensity of production, size of businesses, nature of risk, complexity of transactions). For an economy to work well, it is essential to have hard infrastructure (roads, bridges, energy networks, etc.) and soft infrastructure (informal and formal institutions), appropriate for the conditions at a given stage of development.
2. There are not just two but many stages of development. They form a broad spectrum: from the primitive agriculture-based economies with the lowest income, to the highly developed and industrialised economies with the highest income.
3. At every stage of development, the market is a mechanism which enables effective allocation of resources, while the ultimate driver of development is the private sector. Nevertheless, it must be supplemented with state actions promoting structural changes and technical progress. The state does not replace the market but actively supports and promotes industrial development and innovativeness of the economy.

The transition to a higher stage of development becomes possible when the availability of production factors changes, which requires that the structure of the economy be changed through innovation – not only are new techniques and production methods sought, but also products in which the economy has a comparative advantage are needed. Businesses that engage in this activity create knowledge (uncompetitive and non-exclusive), which is also used by other companies. These are positive externalities, extremely important for entrepreneurs who are starting manufacturing of new products exposed to a high risk of failure.

A prerequisite for ensuring development is the existence of a pricing system that provides information on the scarcity of resources. Based on this, private enterprises seeking to maximise profits will specialise in manufacturing

products in which the economy has comparative advantages. It is important that the state promote competition and not distort the price signals coming from the market.

As a result, the tasks of the state include: (1) providing information on new manufacturing methods and products that are compatible with comparative advantages resulting from changes in production factors; (2) coordinating business investments and providing appropriate hard and soft infrastructure that facilitates business operations and reduces transaction costs; (3) subsidising activities characterised by positive externalities in the development process; (4) facilitating the development of new enterprises by creating favourable conditions for their development, attracting foreign direct investments that will increase *know-how*.

As far as industrial policy is concerned, Lin and Monga (2012a) propose the following action sequence for the government:

1. Identify countries experiencing fast economic growth with similar structure of production factors but with income per capita twice as high. Then, determine which sectors of the economy producing export goods have been developing in these countries over the last 20 years.
2. If private enterprises already operate in these sectors, identify the obstacles that may slow down their development or hinder the entry of new companies, and remove them.
3. If there are no domestic enterprises in these sectors, attempt to attract foreign direct investment from the countries identified in step one or support the development of private companies through business incubators, technology parks, etc.
4. Continuously monitor activities of private companies aimed at discovering new comparative advantages and, if identified, support the development of these sectors of the economy.
5. In the case of countries with poor infrastructure and an unfavourable environment for economic activity, introduce special economic zones in order to reduce entry barriers for private companies, attract foreign direct investments and facilitate the emergence of industrial clusters.
6. Provide tax incentives (for a specified period) for companies that are searching for sectors with a comparative advantage, co-finance their investments or facilitate access to foreign currencies.

Evaluation of New Structural Economics research programme

One of the considerable advantages of NSE is that, although it stresses the role of the market as an effective resource allocation mechanism, it nevertheless considers transaction costs, thus referring to the achievements of new institutional economics (Coase, 1960; Williamson, 1975; North, 1990). Additionally, it rightly emphasises that the discovery of comparative advantages requires state intervention due to uncertainty, externalities and the need to coordinate activities. Lin and Monga (2012b) point out that the use of NSE allows to explain stylised facts of economic growth in rapidly developing countries identified in *The Growth Report* (2008).

The weakness of NSE is undoubtedly its heterogeneity, which consists in combining very diverse elements attributed to competing schools and paradigms. This has a negative impact on its coherence on the methodological, theoretical and applicational levels. NSE is rather a set of, often loosely related, views that do not create a theoretical “hard core” that would be subject to a convincing empirical verification.

Furthermore, the recommendations regarding the active role of the state are nothing new. Although the importance of the market and the state is rightly emphasised, the question arises as to the practical recommendations of NSE regarding industrial policy. An active role can be recommended in theoretical models;

however, practice requires an answer to the question of how can this be accomplished? As noted by Rodrik (2010), should recommendations not be preceded by a definitive diagnosis in all cases? NSE does not provide answers to these questions because this concept is very general and applicable to countries practically at all stages of development. Consequently, NSE instead of providing answers, raises further questions, e.g. What institutions and policies are appropriate for countries at various stages of development? How to make the market and the state play their roles to ensure an effective resource allocation and transition to a higher level of development?

Another matter is the ability to implement the NSE recommendations considering institutional constraints. Although Lin (2010) mentions institutional issues, they are left open for interpretation. On the other hand, institutional economics emphasises that it is the formal and informal institutions that may hinder economic development (North, 1990, 2005). While the state creates formal institutions, its influence on informal institutions is much smaller, and the change of informal institutions is slow.

Another weakness of NSE is the lack of reference to the interaction between political and economic institutions. As Acemoglu and Robinson (2012) argue, it is impossible to achieve a high level of development without pluralistic political and economic institutions. When a country has an undemocratic government who breaks the rule of law, it will set up exploitative economic institutions that do not facilitate economic growth but increase the wealth of those in charge instead.

Conclusions

The NSE recommendations might be applied to Poland in relation to the search for new comparative advantages. Based on the conclusions from NSE, proposals can be formulated as to the directions of public aid or the development of hard infrastructure. Nevertheless, NSE does not address many of the weaknesses which are a problem for the Polish economy and society, such as: weakness of institutions (formal ones created by the state as well as informal ones, including low social capital); situation on the labour market; condition of public finance; demographic problems; low innovation (*Raport: Następne 25 lat...*, 2015; *Państwo i My...*, 2015; *Plan na rzecz odpowiedzialnego rozwoju*, 2016; *Strategia na rzecz Odpowiedzialnego Rozwoju do roku 2020*, 2017; *Wyzwania rozwojowe Polski...*, 2016).

In the discussion which accompanies the policies considered in *Plan na rzecz odpowiedzialnego rozwoju* and its continuation and operationalisation *Strategia na rzecz Odpowiedzialnego Rozwoju do roku 2020*, it is emphasised that in both documents the conditions and threats to achieving what is intended were relatively poorly developed. In turn, the ability of the state to correctly define development goals and then select appropriate tools for implementation in terms of both allocation and regulation, as well as the effectiveness and efficiency of the activities of the state, were treated too optimistically.

One of the conditions and threats is undoubtedly the progressing financialisation (Ratajczak, 2012, 2017) of the economy. However, it should be noted that in the case of Poland at the current stage of development of the economic and financial sectors, threats are associated mostly with the transmission of the effects of events and phenomena taking place in the international environment rather than with the changes within the financial sector in the Polish economy. Nevertheless, given the continuous internationalisation of the Polish economy, even the phenomena which have, as of yet, a relatively weak impact in Poland considering the current structure of the economy, will gradually begin to play an increasingly important role.

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FINANCING INFRASTRUCTURE IN THE POLISH TSL SECTOR FROM EU FUNDS

GRAŻYNA ROSA,¹ TOMASZ SONDEJ²

¹ University of Szczecin, POLAND
e-mail: grazyna.rosa@wzieu.pl

² WSB Universities, POLAND
e-mail: tomasz.sondej@wp.pl

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ABSTRACT The article presents the stages and principles of financing the TSL sector, the description of national and regional programmes of financing the TSL sector infrastructure from European Union funds, special funds for new programmes in 2014–2020, and areas for financing projects in the TSL sector. The aim of these considerations is to analyse the financing of the TSL sector infrastructure in Poland from EU funds, while taking into account changes implemented in the next three financing prospects, as well as indicate development directions of this sector. In order to achieve this goal, the desk research method was applied in relation to the available literature and Internet sources. The article is of review character.

Introduction

Due to the non-uniformity of transport conditions in the Member States (e.g. excess and diversity of regulations, different conditions of infrastructure, different standard of services, diversity of information systems), the European Union attempts to coordinate activities supporting transport development, in particular intermodal transport, mainly in the form of financial support, which generally concerns the following areas (Rosa, 2017, p. 688):

support of intermodality in the realized TEN-T network projects, development and functionality of logistics centres, harmonization of standards, integration of freight transport corridors and support of research projects in the field of intermodal transport. Public resources of individual countries are insufficient to meet the financial needs related to transport investments.

Financing infrastructure in the transport-shipping-logistics (TSL) sector is part of the implementation of transport policy objectives. The infrastructure can be financed from (Liberadzki, Mindur, 2007, p. 467) public capital (central and local budget), private capital, and capital from support measures coming from EU funds. An important factor determining the efficient functioning of enterprises in the TSL sector are applied technologies. In literature on the subject and colloquial language, terms related to new technologies, such as combined, multimodal and intermodal transport, are often interchangeably used. These concepts were precisely defined in the "Terminology of Combined Transport" glossary published by the European Conference of Ministers of Transport (CEMT), (Mindur, Krzyżaniak, 2011, p. 11). Multimodal transport is understood as the transportation of goods by two or more modes of transport, where the goods may switch loading units. In intermodal transport, goods are moved in one and the same loading unit, which successively uses two or more modes of transport. Combined transport is classified as intermodal transport, where the major part of the loading unit journey is by rail, inland waterways or sea between terminals and any initial and/or final legs carried out by road are as short as possible (Mindur, 2014, p. 329). Rail and road transport should complement each other, assuming that goods are transported over long distances by trains, and "last-mile services" are provided primarily using lorries. Furthermore, the use of intermodal units, such as containers and swap bodies, should be promoted (*Zwiększenie roli...*, 2017, p. 3). There are many arguments supporting the development of intermodal transport, with the main ones including: changing the structure of freight transport, increasing the transport of goods, caring for the natural environment, reducing the external costs of transport.

The aim of the presented considerations is to analyse the financing of infrastructure in the Polish TSL sector from EU funds and to indicate the development directions of this sector. These considerations included indication of the stages and principles of financing the TSL sector, description of national and regional programmes of financing the TSL sector infrastructure from European Union funds, special funds for new programmes in 2014–2020, and identification of areas for financing projects in TSL sector.

In order to achieve the goal, the desk research method was applied in relation to the available literature and Internet sources.

Stages and principles of financing the TSL sector from EU funds

Financing the infrastructure development in the TSL sector from EU funds in Poland can be divided into three stages (Rosa, 2017, p. 701):

1. In the years 2004–2006, financing was carried out in accordance with the Transport Sectoral Operational Programme – Maritime Economy (SPOT) within a specified area of activity, namely the development of intermodal systems. The creation and development of such systems was possible thanks to the creation of logistic centres that also acted as intermodal terminals equipped with transshipment stations. As part of this programme, special emphasis was put on logistics centres and container terminals located on railway lines, which enabled the change of transport modes on the east-west and north-south directions. This task focused on financially supporting projects related to these activities from the European Regional

Development Fund. The support amounted to EUR 21 million. National resources in this area amounted to EUR 8.9 million.

2. Under the financial perspective for the years 2007–2013, EU funds for financing transport were allocated in Poland in accordance with the Operational Programme Infrastructure and Environment (POIiŚ). As Poland did not use the funds allocated to SPOT for the development of intermodal systems, the task was not mentioned in the new financial perspective. One of the objectives included in this programme for the priority axis, i.e., environmentally friendly transport, was the increase of intermodal transport share in the general cargo transport.
3. Under the new financial perspective for the years 2014–2020, EU funds for transport financing are being allocated in Poland in accordance with the Operational Programme Infrastructure and Environment (POIiŚ) – Priority axis III: Development of the TEN-T road network and multimodal transport.

The perspective for 2014–2020 is implemented in Poland through 6 national operational programmes managed by the Ministry of Development, and 16 regional programmes managed by Marshal Offices (Table 1).

Table 1. EU funds in national programmes in the years 2014–2020

No.	Programme name	Financial resources from EU funds billion EUR
1.	Infrastructure and Environment Programme	27.4
2.	Smart Growth Programme	8.6
3.	Knowledge, Education, Growth Programme	4.7
4.	Digital Poland Programme	2.2
5.	Eastern Poland Programme	2.0
6.	Technical Assistance Programme	0.7

Source: Co można... (2018).

The highest amount of funds were allocated for the Infrastructure and Environment Programme, whose priorities are low-emission economy, environmental protection, development of technical infrastructure of the country, and energy security.

At the national level, 19 smart specializations have been defined within 5 thematic areas. The closest national smart specialization to the sector of logistics, shipping, and transport is specialization No. 9, i.e., environmentally friendly transport solutions, and possibly No. 14 - Sensors (including biosensors) and smart sensor networks.

In the field of transport, the emphasis is put on clean communication, especially the development of rail transport. In justified cases, it is possible to finance other forms of low-emission transport, such as trolleybuses or electric buses. Moreover, investments in infrastructure (e.g. construction, reconstruction, development of rail and energy networks, transfer centres, and elements of road and street infrastructure serving public transport and passengers) and rolling stock can be implemented. Particular attention is given to combination of both types of these projects. Furthermore, complementary infrastructure projects, such as intelligent transport systems, integration of existing transport means and adaptation of communication to the needs of people with disabilities, will also be funded (*Fundusze unijne...*, 2018)

National programmes for financing infrastructure in the TSL sector from European Union funds

The largest programme financed from European Funds not only in Poland, but also in the whole European Union, is the Infrastructure and Environment Programme 2014–2020. Thanks to the balance kept between investment in infrastructure and support directed to selected areas of the economy, the programme can effectively implement the Europe 2020 strategy, whose main aim is to support a resource-efficient and environmentally friendly economy as well as social and territorial cohesion (*Co można...*, 2018). The areas of support and types of projects that can be implemented under the Infrastructure and Environment Programme 2014–2020, and which relate to, at least partially, transport issues, include (*Co można...*, 2018):

1. Development of the TEN-T road network and multimodal transport, including: development of road infrastructure in the TEN-T network, improvement of road safety, improvement of air traffic safety, intermodal, sea and inland transport.
2. Road infrastructure for cities, including improving the accessibility of cities and the capacity of road infrastructure (development of road infrastructure in cities and outgoing routes from cities, construction of bypasses).
3. Development of rail transport in Poland, including the development of railways in TEN-T, outside the network and city railways.
4. Development of low-emission public transport in cities, including infrastructure and rolling stock for public transport in cities and their functional areas.

The Infrastructure and Environment Programme is financed from three sources (*Sposób finansowania...*, 2018):

- The European Regional Development Fund that allocates EUR 4,905.9 million for the programme,
- The Cohesion Fund, allocating EUR 22,507.9 million,
- National funds – public and private, which amount to EUR 4,853.2 million minimum.

Under the financial perspective 2014–2020, support for this type of investment is continued primarily under the POIiŚ programme, Priority axis III: Development of the TEN-T road network and multimodal transport, number and name of the priority/action/sub-measure: Measure 3.2. Development of maritime transport, inland waterways and multimodal connections (*Dotacje unijne...*, 2018). Under this measure, the types of projects eligible for financing in intermodal transport can be distinguished (*Rozwój transportu...*, 2018): construction and reconstruction of intermodal terminal infrastructure, including terminals located in logistic centres and seaports, together with a dedicated railway (including sidings)/road infrastructure, which is necessary for their inclusion into the railway lines/road network, as well as the construction/ reconstruction of utilities necessary for the terminal's operation:

1. Purchase and/or modernization of devices necessary for the operation of intermodal terminals, in particular lifting devices and other devices for reloading of shunting locomotives.
2. Purchase and/or modernization of telematics and satellite systems (devices and software) related to intermodal transport, as well as expenses for their implementation.
3. Purchase and/or modernization of rolling stock, including switcher locomotives, and specialized carriages for intermodal transport (platform).

The institution that announces the competition is the Centre for EU Transport Projects (www.cupt.gov.pl, 2018). As part of the support for investments aimed at the development of intermodal transport, the priority Axis will

comprise projects concerning the modernization and extension of existing terminals, as well as the increase in their number, including intermodal terminals located in logistic centres and seaports.

The following project types will be implemented under the Cohesion Fund:¹

- construction or extension of infrastructure that is part of railway or maritime container terminals,
- construction or extension of infrastructure that is part of logistic centre located in seaport or on a railway line,
- purchase of equipment used to manage the terminal/logistics centre.

Thanks to the construction of public container terminals and logistic centres on railway lines and in seaports, as well as the introduction of modern management techniques in terminals and logistics centres, there is a growing interest in intermodal transport presented as an alternative to the previously used forms of goods transport. Since the state is interested in the dynamic development of the intermodal transport system, it should be supported from public funds. This support can (potentially) take several forms (Engelhardt, 2015, p. 29):

- subsidizing charges levied for access to intermodal train infrastructure,
- subsidizing purchases of intermodal rolling stock,
- subsidizing investment expenditures in the scope of construction of railway intermodal (logistic) terminals,
- subsidizing the activities of intermodal transport operators or cargo managers, who send shipments using combined transport from the National Fund for Environmental Protection and Water Management.

Subsidizing telematics and satellite systems that provide users with real-time information on the current location of the transported cargo, and thus optimize and control transport processes, will contribute to shortening the delivery time and reducing the threat to the condition of transported loads (*Centra logistyczne...*, 2018).

Regional programmes for financing infrastructure in the TSL sector from European Union funds

In addition to national programmes, EU funds are also allocated among 16 regional programmes, whose goal is to support the development of all regions. In this case, the funds are managed not by central authorities, but local government institutions, i.e. voivodship boards. The differentiation of EU funds allocated to regional programmes in 2014–2020 is presented in Table 2.

Table 2. EU funds in regional programmes in 2014–2020

No.	Regional programmes per voivodship boards	EU funds in regional programmes in 2014–2020 (billion euros)
1	2	3
1.	Dolnośląskie	2.25
2.	Kujawsko-pomorskie	1.90
3.	Lubelskie	2.23
4.	Lubuskie	0.90
5.	Łódzkie	2.25
6.	Małopolskie	2.87
7.	Mazowieckie	2.08
8.	Opolskie	0.90
9.	Podkarpackie	2.10

¹ <http://www.cupt.gov.pl> (2018).

1	2	3
10.	Podlaskie	1.21
11.	Pomorskie	1.86
12.	Śląskie	3.47
13.	Świętokrzyskie	1.36
14.	Warmińsko-mazurskie	1.72
15.	Wielkopolskie	2.45
16.	Zachodniopomorskie	1.60

Source: *Co można...* (2018).

On the other hand, each voivodeship chose its own regional specializations focusing on issues considered a priority. In many regions, these issues are directly related to logistics, transport and forwarding. For example, “Specialized logistics processes” was selected in Wielkopolskie voivodeship, whereas Pomorskie voivodeship chose “Logistics, business services” (Kaim-Mierzwicka, 2018) while Zachodniopomorskie voivodeship “Maritime activity and logistics” (*Regionalny Program...*, 2018).

Regional Programmes are focused on comprehensive support for voivodeship development. Each programme has its particular characteristics resulting from regional conditions and strategies, the basis for which, however, were national and EU thematic objectives (*Regionalne programy...*, 2018). Regional Programmes operate in parallel to national programmes – in both cases, the same objectives were taken into account, but with different approach. In accordance with the strategic plans adopted in Poland for the purposes of preparing programmes for 2014–2020, in the field of transport, mainly the regional and local transport infrastructure, i.e., public transport in cities, should be supported from the European Regional Development Fund (*Regionalne programy...*, 2018).

Special funds for new programmes in the years 2014–2020

In addition to existing funds, the European Union has allocated special funds for new programmes for 2014–2020 that are aimed at providing additional support in various areas (Programy ramowe..., 2018). In case of transport, it will be the programme named “The Connecting Europe Facility” (*Instrument...*, 2018), which will be the most important instrument financing strategic investments in infrastructure in the field of road construction, railway lines, energy networks, as well as the development of information and communication technologies (EUR 33 billion).

In Poland, as well as in other countries, the forthcoming years will be a period of increased investment in transport infrastructure. It is therefore possible to further increase these levels by supporting PPP solutions and other incentives for private capital. Investment projects in transport tend to be more complex than investments in other industries, as they often involve more stakeholders and are dependent on more factors. In the period up to 2020, a special focus on the selection of reliable contractors and supervision over the implemented investments is recommended, so that ambitious plans can be implemented in accordance with the aims.

Potential sources of support for projects from the TSL sector can be found in the following EU programmes (cf. Kaim-Mierzwicka, 2015):

Smart Growth Operational Programme:

1. Performance of R&D works/construction and extension of RDC:
 - projects aimed at developing new products or services,
 - projects for national smart specializations,

- projects with eligible costs exceeding PLN 2 million.
2. Implementation of innovative technologies:
- projects involving the implementation of an innovative solution in the company,
 - projects for national smart specializations,
 - projects with a higher value of eligible costs.

Infrastructure and Environment Operational Programme:

1. Environmentally friendly projects:
- projects concerning raw material and energy savings implemented by large enterprises,
 - projects concerning production of energy from renewable energy sources (RES) – installations with more power.

Regional Operational Programmes:

1. Performance of R&D works/ construction and extension of RDC:
- projects aimed at developing new products or services,
 - projects for regional smart specializations,
 - projects with eligible costs not exceeding PLN 2 million.
2. Implementation of innovative technologies:
- projects involving the implementation of an innovative solution in the company,
 - projects for national smart specializations,
 - projects with a lower value of eligible costs.
3. Information and Communication Technologies:
- projects involving the purchase and implementation of new IT solutions to launch new e-services,
 - projects implemented by SMEs.
4. Environmentally friendly projects:
- projects concerning raw material and energy savings implemented by SMEs,
 - projects concerning production of energy from renewable energy sources (RES) – installations with less power.

Funding areas for projects from the TSL sector

According to Katarzyna Kaim-Mierzwicka (2018), areas that could be potentially financed from the TSL sector projects include:

- a) Conducting research-development works

One of the main areas of support for enterprises under the new EU perspective is co-financing of research and development activities. The funds will be granted at the national level, under Smart Growth Operational Programme (SG OP), and at the regional level from regional operational programmes (ROP). They should address issues covered by national or regional smart specializations, depending on the programme under which the application is submitted. In addition to support for research and development, it will be possible to apply for funds for the creation or development of research and development centres (RDC). Under this type of projects, it will be possible to purchase the equipment necessary to conduct the tests.

b) Implementation of innovative technologies in the operations of enterprises

As part of projects belonging to this category, entrepreneurs will be able to obtain co-financing for investment costs related to the development of their enterprise. In general, the aim of bearing investment costs is to implement an innovative solution at the company, e.g. a new way of labelling and identifying goods in the industry that allow significant time and cost savings (Kaim-Mierzwicka, 2015)

c) Information and communication technologies (ICT) related projects

As part of the ROP, small and medium-sized enterprises will be able to obtain co-financing for the implementation of projects related to the purchase and implementation of new IT solutions. However, projects cannot regard only the purchase of equipment. They should constitute comprehensive projects, which may result in, e.g. the launch of new e-services, a change in the way of communicating with business partners (B2B) and clients (B2C) or the automation of business processes.

d) Projects regarding pro-environmental solutions

Different types of projects, for which it is possible to indicate decreased demand for energy, water or other raw materials, will be supported under the so-called pro-environmental projects. This category also includes undertakings aiming at the production of energy from renewable sources (RES) – sun, wind, water, biomass, biogas, etc. The planned projects can be referred to specific modes of transport.

In the area of road transport, the largest part of the funds will be allocated for investments in national roads and expressways. In the current EU financial perspective, the government wants to allocate PLN 140 billion for the construction of modern roads. These financial resources will come from national and EU funds, with subsidies obtainable from the EU amounting to PLN 48 billion. By 2023, 1800 km of new roads, mainly motorways and expressways, are planned to be built. Thanks to the support of the European Union, the road network of the highest standard in Poland increased almost three times between 2004 and 2013 (National Road Construction Programme 2011–2015, 2018, National Road Construction Programme for 2014–2023, 2018). Road transport remains the dominant means of transport in Poland. In 2014, around 80% of transport was carried out by cars on the TSL market, and in 2020 this number will increase to 82%. Therefore, an important issue is further increase in road capacity.

The assessment of EU experts regarding the functioning of Polish rail transport is actually negative. Despite EU investments, the functioning of rail transport is still unsatisfactory due to traffic restrictions and degraded infrastructure (currently about half of the 19,000 km of railway lines are in good technical condition (*Wieloletni...*, 2018)). The other factor that lowers competitiveness of rail transport is high fees for access to infrastructure. The low popularity of rail transport results in increased negative environmental effects such as greenhouse gas emissions, air and noise pollution (Grunert, 2016, pp. 1–2). In the years 2014–2020, approximately PLN 22 billion is planned to be spent on investments in railway infrastructure from EU funds. In total, by 2023, Polish government intends to allocate PLN 31 billion to investments in rail transport (according to the “The National Railway Programme 2023”). PKP PLK (Polish Railways) assumes further modernization and revitalization of the existing network of railway lines, including high-speed rail on the most important connections. The speed of trains planned by PKP PLK is 160 km/h for passenger trains and 120 km/h for freight trains (*Centrum logistyczne...*, 2018).

Moreover, it is planned that EU investments in 2014–2020 in maritime transport will amount PLN 6.5 billion, which is more than a 2.5-fold increase when compared to the 2007–2013 perspective. The Container Terminal

in Gdańsk will increase its capacity from 1.5 million TEU to 4.5 million TEU by 2020. Over PLN 1.3 billion will be allocated for investments in ports in Świnoujście and Szczecin (*Centrum logistyczne...*, 2018).

The European Union spent approximately EUR 615.7 million in 2007–2013 to support aviation infrastructure in Poland. Further expenditure on aviation infrastructure in Poland will be significantly reduced in the coming years. It is assumed that the Polish air transport sector will grow at an average annual rate of 3.7% in 2014–2019. The European Commission has limited the financing of airports by 2020 due to the well-developed network of airports in Poland (*Centrum Logistyczne...*, 2018).

Conclusions

The lack of a coherent concept of infrastructure development in the TSL sector has led to the formation of the national logistic system different from those in Western European countries. Analysing the experiences of these Western European countries, it seems that the most appropriate way is to finance TSL infrastructure and create logistic centres based on the public-private partnership that involves funds from the private, local government and government administration sectors (Jacyna, 2013, pp. 100–103).

In the case of large investments, which require high amount of financial resources, additional co-financing from European Union subsidies, called the hybrid model, may be required (Mindur, 2007, p. 311). However, despite the considerable support from the European Union, sometimes reaching 85% of the value of investments, there is a need to look for new sources of financing for infrastructure projects. Private capital can be an important source of supporting transport investments. Considering the fact that the infrastructure is a public good, only in exceptional cases can it be financed by private capital. In Poland, the justification for such solution is the high budget deficit, which means that entities responsible for infrastructure financing, the state, and local governments, are not able to fully fulfil their task.

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ADAPTATION A METHOD OF MEASURING NEW PRODUCT DEVELOPMENT PROCESS MATURITY IN SERVICE DESIGN

IRENEUSZ P. RUTKOWSKI

Poznań University of Economics and Business, Faculty of Management, POLAND
e-mail: i.rutkowski@ue.poznan.pl

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ABSTRACT	The article discussed possibilities of adaptation a measuring method of maturity of new product development process in service design – method referred to herein as a matrix of product innovation process maturity and intelligent grid of relationships. It is assumed that the service enterprise should lead new service product development process at the highest level of maturity and the highest level of grid/network of relationships maturity. This should work with various stakeholder groups in areas of matrix most attractive to improve process less mature and attractive in terms of business. The company should also focus on investing available resources and expertise in service design with a strong competitive position and withdraw from these projects of new service products whose competitive position is weak. In the article are therefore proposed normative strategies resulting from assessment of the situation in matrix.

Introduction

The purpose of this paper is to discuss the possibilities of adaptation a method of measuring new service innovation process maturity in the service design domain, propose and examine the implications of implementation this method in service company's strategic perspective, classifying service innovations on the basis of their potential impact on productivity from the company's innovation process maturity and smart grid relationships perspectives.

There has been a lot of focus on product innovation over the years, but very little discussion or thought in service innovation process, despite the vast growth of that part of our economy not only in Poland. The publication sets out to propose a new research approach – one that could significantly improve maturity measurement of service product innovation processes in businesses. As detailed here, concept for measuring maturity of the innovation and new services product marketing process reflects a specific research attitude towards service design and new service product development. The article has been structured to reflect the logic inherent in the development of different research approaches. Importantly, too, the concept sees those approaches as guiding and directing the studies into the matrix- and grid-based methods which are developed using new analytical tools (Rikke Dam, Teo Siang, 2017; Gierszewska, Romanowska, 2009; Jeston, Nelis, 2006). There is an ongoing development of theories relating the practice of design for service to design in general as well as to other relevant areas (Holmlid, 2012; Sangiorgi, Clark, 2004; Blomkvist, Rankin, Anundi, Holmlid, 2010), and studies on the designer in relationship to other areas of competence (Kimbell, 2009; Pacenti, Sangiorgi, 2010; Blomkvist, Holmlid, Segelström, 2010; Holmlid, Evenson, 2008). What is presented here is an overview of methodology with its relevant techniques and procedural algorithms (methodology in a pragmatic sense).

The approach is functional – descriptive: it is based on diagnostic activities (factual appraisals) and involves formulation of models. These models then used to deliver functional solutions to be used in service product innovation process and its maturity measurements (Paulk, Curtis, Chrissis, Weber, 2011; SGMM, 2011). Generally, a research approach, it is a way to obtain information and create a body of knowledge about service product innovation and marketing processes. We can analyse it in different dimensions, with the type and model of research forming the most basic criteria for classifying a research process (Parasuraman, 2010; Grajewski, 2012; Orr, 2007). Regardless of the area of research or choice of methodology, the research process involves similar activities. The process is an expression of the basic scientific method. Research processes can also be classified in terms of their methods, techniques, and research tools.

Maturity of new product development process in service design

The proposed method is comprehensive adaptation and provides a multi-dimensional set of instruments for precise measurements of the maturity of innovation and new product marketing processes which organisations use in business and project management or in strategic marketing (including new product strategies/service product strategies). The new service product strategies should accommodate a number of factors, including highly dynamic and unpredictable technological and legal developments, on the one hand, and demand, competition and competence, on the other. When businesses operate in such conditions, it is reasonable to try and identify potential sources for the success of a new product on the market as the most important condition for the success of an organisation as a whole.

Therefore, the following issues need to be resolved:

1. What factors affect a maturity of service design and new service product innovation process and marketing relationships?
2. Are there any relationships/correlations between what makes the innovation and new service product marketing process mature and the market success of new service products?
3. What methods and tools are there to measure the product innovation maturity accurately?
4. How to examine, measure and evaluate maturity of those processes?

It is particularly important to identify determinants of maturity of innovation and new service product marketing process, and then determine relationships between those determinants and qualitative and quantitative measures of the new product's market success. Finally, it is important to formulate the rules to describe any such relationships, correlations or interdependencies.

In the last decade, companies have invested huge sums of money in order to identify and standardize introduction of new products on market. Despite these investment research indicators of success of new products have shown little or no improvement (Rutkowski, 2016; Rutkowski, 2007).

The assumption is that the organisation should maintain its product innovation process at the highest maturity and smart grid level. It should cooperate with different stakeholder groups on the most attractive matrix areas, improving those of its process areas which are less mature and less attractive in business terms. The service organisation should also focus on investing its available resources and competences in the development of new products with strong competitive position, and phase out development projects for new products which are competitively weak.

As shown below, the matrix describes two variables: innovation and new product marketing maturity, and smart grid relationships maturity. Both have been measured over a long time span (at least dozen or so months). For these variables evaluation is provided – from 0 up to 5, so the matrix consists of 25 areas. The intersection between evaluation vectors for the innovation and new product marketing maturity and the smart grid maturity shows where the analysed case is in terms of the integrated service product innovation maturity. To measure and determine the positions of aggregated variables within the matrix, any factors/conditions affecting the innovation and new product marketing maturity and the smart grid maturity should be identified and evaluated (ranked). This could be done based on the key factors described in two survey questionnaires.

Characteristics of SERVMIGR matrix method

The number of factors is not strictly defined and can be increased to include other so-called best practices if they are properly identified by managers, relevant in terms of performance, efficiency and, most importantly, the service product innovation and grid maturity. Generally, factors included in questionnaires are used and ranked. Adapted factors are ranked on scale, for example of 0 to 10 points or 0 to 100%.¹ After that, scores are determined for each matrix dimension. The vectors are plotted in matrix.

The SERVMIGR matrix consist of five process and new service product security zones and determines basic strategies for service product innovation, grid and new service product marketing process improvements (Figure 1):

- a) four green boxes in the top right corner with number "5" only include strong and very strong process areas and show maturity level 4 and 5 – numerical values [4; 5]; management should invest in those areas and maintain/develop them; growth strategies – new service product development projects are highly safe (even in a high-risk environment);
- b) five blue boxes with number "4" only include process areas with average or high maturity, maturity level 3, 4 or even 5 – numerical values [3; 4]; service product innovation strategies which are focused on grid strength and high process maturity are very safe;

¹ See the website <http://nowyprodukt.ue.poznan.pl> – list of factors to choose is available here or in Rutkowski I.P., 2016, chapter VIII.

- c) six brown boxes with number “3” only include process areas with low, average or high maturity, innovation and grid maturity levels can be high or low; service product innovation strategies are characterized by medium safety (high-risk projects should be avoided);
- d) six yellow boxes with number “2” show process areas with low and average maturity, maturity level 2 or 3 – numerical values [1; 2]; the firm should improve them selectively and focus on the protection of new service product development projects; limit and hold strategies which are characterised by low new service product development project safety;
- e) four boxes in the bottom left corner include process areas with low maturity and attractiveness and low grid maturity, maturity level 0 or 1 – numerical values [0; 1]; these areas should be rapidly improved or stopped/divested; defend strategy – new service product development project safety is low, risk can be taken relating to new service product purchases.

The five zones for service product innovation, grid and marketing process improvements are different in nature and are used to accomplish different new service product objectives at any given innovation and grid maturity level. A strategic view of business management processes and structures involves the need to focus on important market areas and entities. This makes it necessary to examine and analyse the market structure and competitor, supplier and customer behaviours, and to respond to current or forecast changes in the marketing environment, including through service product innovation process improvements in design service. Specific strategies assigned to each of the 25 areas are shown in Table 1.

Level of maturity of smart grid of relationships	3	3	4	5	5
	2	3	4	5	5
	2	2	4	4	4
	1	1	2	3	3
	1	1	2	2	3
Level of maturity of the process of service product innovation					

Figure 1. Process and new service product project safety zones – SERVMIGR matrix

Source: own elaboration.

Certain concepts have been adapted here for strategic management and planning purposes. These concepts are used to analyse the situation of new service products in the innovation process and to manage changes within a business, especially the long-term ones. The grid- and matrix-based analyses are useful to different business organisations, but are most often applied by firms with diversified products, markets, and technologies. These analyses are helpful in selecting optimum processes, services, markets, and technologies in a given regulatory environment. They are among methods used to take allocation decisions and rationalise strategic choice process, including in the new product management and development areas.

The purpose of the grid-and-matrix analysis in strategic management is to support decision-making that ensures sustainable and long-term business growth and resource development in a changeable environment. To achieve this purpose, a business organisation is looked at as a whole, strategic success factors are selected and focused on, relatively autonomous strategic units are identified, and methodological approaches are used in which

both internal and external-focused management processes are examined. The different service product innovation measurement models used here combine these methodological approaches.

Table 1. Strategies of action following SERVMIGR matrix evaluation

Smart grid relationships maturity levels	5	Improve competences and rapidly increase process maturity	Protect grid and defend new service product projects selectively	Create new service products selectively and protect grid	Invest in continuous improvements to innovation and grid processes	Invest in service product innovations at a sustainably fast pace
	4	Defend projects on a limited basis or selectively	Improve innovation process fast and protect grid	Defend projects selectively based on grid strength	Manage with a view to achieving new service product goals	Strengthen market position of new service product
	3	Divest if long-term growth is not possible	Focus on investment in processes with high returns and relatively low risks	Create new service products selectively and strengthen grid	Defend existing new service product projects	Create new service products selectively based on high process maturity
	2	Reduce fixed costs, and avoid investment in risky projects	Improve process or grid with strength or divest	Manage with a view to achieving service product goals, improve grid	Focus on investment in processes with satisfying returns and low risks	Protect main areas of action and strengthen grid
	1	Divest new service product projects or use new product purchase strategies	Minimise investments in risky projects and improve grid and process	Manage process in terms of current outcomes, improve grid	Defend position for potentially most profitable new service product projects	Change main areas of action and improve grid with strength
	0	1	2	3	4	5

Service product innovation process maturity levels

0 – Default; 1 – Initiating; 2 – Enabling; 3 – Integrating; 4 – Optimising; 5 – Pioneering.

Source: own elaboration.

What is common to these methods of analysing product innovation is that two or more aggregated variables are distinguished which characterise overall strategic success factors for new products. One variable or group of variables is closely linked to the business environment, and especially the grid maturity; the other variable or group of variables addresses product innovation and organisational structure maturity. When those variables are shown in a measurable format and represented graphically in a matrix with a certain (even large) number of boxes, one can identify and determine the current and future (expected) strategic position of new products and the firm (or its strategic unit) as a whole.

Conclusions

Analysis and discussion of the proposed method lead to the overarching conclusion that strategies to improve new service productivity, enhance new service quality or implement service innovations, are likely to be suboptimal if pursued in isolation. As such, it is important for companies to consider the inter-linkages among service productivity, quality and innovation when formulating and implementing new services strategies pertaining to any of them. As presented above, the service product innovation measurement models have as their purpose:

- to show how balanced the new service product offering is,
- to provide conditions for determining type and nature of new service strategies,
- to reduce complexity and differentiation of new service product management process in firm,
- to help make structural changes in diversified businesses through appropriate resource and competence allocations,

- to focus on strengths and take advantage of external opportunities,
- to mitigate service product innovation and marketing process risks in strategic decision-making,
- to use early warning systems to recognise development threats early and with large likelihood,
- to support new service product strategy formulation and implementation processes.

Certain priorities in the new service product innovation process may require that selected aspects of integrated service design and marketing relationships are used. First of all, management level in company should determine and have an understanding of strategy, and then move on to estimate their competencies. The diffusion process of factor groups which determine the market success of new service products (in other words, best practices which describe new service product innovation and marketing maturity levels) is observable both within enterprises and across organisations. The resulting expanded new service methodological framework and proposed typology of service innovation strategies have important managerial implications and also offer several potentially fruitful avenues for further research.

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USAGE OF IT TOOLS IN LOGISTICS SERVICES DESIGN – OPPORTUNITIES AND CHALLENGES

ANDRZEJ RZECZYCKI

University of Szczecin, Faculty of Management and Economics of Services, POLAND
e-mail: andrzej.rzeczycki@wzieu.pl

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ABSTRACT Artykuł ma za zadanie przedstawić możliwości wykorzystania narzędzi informatycznych służących modelowaniu procesów do projektowania usług logistycznych. Przedstawione opracowanie koncentrować się będzie na możliwościach systemu ADONIS, udostępniane w wersji on-premise oraz SaaS, wskazując możliwości symulacyjne oraz analityczne tych rozwiązań. Obiektem analizy będą zaś procesy usługowe świadczone przez operatorów 3PL.
The article has to present the possibilities of using IT tools to model processes for the design of logistics services. This paper will focus on the capabilities of ADONIS system, in on-premise and SaaS versions, indicating the simulations and analytical capabilities of these solutions. The object of this analysis will be the services processes provided by 3PL operators.

Introduction

Design is understood in two ways: as a phase that comes after concept generation and testing and business analysis, or as a phase that generating new concepts and new knowledge (Kimbell, 2011, pp. 41–52). According to E.V. Krick the design process involves activities and events that occur between the appearance of the problem and the development of documentation that will describe the solution to the problem, satisfactory from a functional,

economic and other requirements (Krick, 1975, pp. 129–130). Each design process is based on a specific scheme of research methodology that deals with both diagnostics and design. In each case, this scheme should be properly modified and adapted to the requirements (Stabryła, 2007, pp. 178–179). Nevertheless, in the design process of the service, we can distinguish the phase of analytical-research work and the phase of elaboration of the main project. In the framework of analytical-research work in the design of services, methods and techniques are used: Quality Function Deployment, Customer Satisfaction Index, Customer Incident Techniques, SERVQUAL – Service Quality, Customer Journey Map, Contextual Interviews, 5x Why. The development of the main project is based on the creating of variants of the service processes, while retaining the goals and values identified during research-analytical work (Dietrich, Trischler, Schuster, Rundle-Thiele, 2017, pp. 663–668; Lin, Hughes, Katica, Dining-Zuber, Plsek, 2011, pp. 73–86).

The paper presents the possibilities and challenges of information systems used in process modeling (on the example of ADONIS), and so creating a main service design, identified during the design work carried out in the company providing logistic services. The aim of the article is to indicate the universality of the methods and tools used, which ensure transparency and quick and easy analysis.

IT process modeling tools

The use of BPMN in the design of process analysis and BPMN notation is widely disseminated in the available scientific literature (Aalst, La Rosa, Santoro, 2016, pp. 1–6; Prades, Romero, Estruch, García-Dominguez, Serrano, 2013, pp. 115–122). With the growing interest in the problem of modeling processes on the market, a number of IT tools have emerged which allow us to prepare a model of the processes under study. Process modeling tools can be divided into (Żytniewski, Zadora, 2017, pp. 195–210):

- simple modeling tools for visualizing and mapping processes, such as MS Office Visio, Flowcharter (Micrografx), Bizagi Process Modeler,
- Computer Aided System Engineering (CASE) tools for process modeling, where they are integrated with IT solutions such as Oracle Designer/2000, Enterprise Architect,
- advanced design and development tools for in-depth analysis and simulations, such as ADONIS, ARIS, iGrafix.

Trends in the development of information systems for process modeling are aimed at creating environments with far greater functionality than modeling processes. Traditional modeling tools are enriched with the ability to perform analyzes and simulations on the developed model. These solutions allow to present alongside business process definitions, as well as other models such as organizational structure, resources, documents, IT systems, etc. The extended range of modeling areas combined with the capabilities of computer simulation allows to evaluate time, cost and efficiency of processes.

Among solutions with such a wide spectrum of modeling and process analysis is the ADONIS system, implemented and developed by BOC Information Technologies Consulting (BOC, 2017). ADONIS offers comprehensive support for process management: from organization and process descriptions, through process optimization to continuous monitoring of goals. With components for modelling, analysis, simulation and evaluation, user can create multidimensional models of business processes, perform statistical analysis of developed process models, and keep track of their processes. System components include: acquisition (import and export of data between ADONIS and Excel spreadsheet), modeling (development of multidimensional business process models),

analysis (static analysis of developed models using predefined queries or user-created queries), simulation (conducting experiments on a model to describe, explain or predict the behaviour of the real system), evaluation (current monitoring of processes by supplementing the model with KPI values), import/export (importing and exporting models from and into the ADONIS environment). ADONIS is fully functional thanks to the ability to create multiple types of models that are interconnected. The BPMS library in ADONIS includes the following models: process map, business process model, work environment model, product model, documents model, IT systems model, risk model, control model, resources model, data's model, use case model, BPMN model (Gawin, Marcinkowski, 2013, pp. 29–34).

A wide range of functionality of ADONIS system allows to model the study environment and to analyse and simulate: processes, costs, resource utilization, personnel management, documentation management, risk management. The result of the simulation and analysis conducted is the design process/service, which should be tested, and after a positive test result, implemented.

The latest version of ADONIS NP is a cloud-based solution. This increases system and data availability, facilitates the dissemination of information, enables scalability and personalization. In addition, the new version introduced an integrated search mechanism and extended module analyses.

Designing logistics services in the ADONIS environment – an example of application

The presented case concerns a Polish company providing logistics services. As part of the project carried out after consultation with customers, the company decided to redesign their processes to automate office service – the introduction of WMS along with automated identification. The project was carried out with the participation of the university.

The basic service provided by the company is warehousing, which, according to theory, consists of four basic processes: receiving, storage, picking and shipping. Each of these processes was analysed (creating an as-is map) and re-modeled (to-be maps) taking into account the requirements of the company's employees and their clients. The improvement was a new information flow system that eliminated paperwork and accelerated customer service (information about inventory, free space and carried out operations transferred in real time). It also simplified the process considerably, due to the focus of most operations directly on the warehouse (in the as-is version the entire transport documentation was created only after the warehouse operations, since it was only then possible to determine exactly which goods were picked for release). Shipping service designed in ADONIS system are presented in Figure 1.

Customer service in the company is dealt by merchants, documentation preparation and control of storage areas by logistics specialists, and direct handling of the goods by warehouse staff. In the presented version of the to-be model, the paper circulation of the document was completely eliminated. The electronic version of the documentation is prepared at the time of acceptance of the order. The “to be” model assumes the processing of information by changing the status of the created documents in the WMS system. Completely closing the document will mean the end of the process and the departure of the driver to the gate.

The significant problem was the new division of duties, especially at the junction of the warehouse and office. The staff of the office did not know how to arrange and issue the goods in the warehouse (it was finally determined that it was issued in accordance with the FIFO principle, taking into account the possibility of easy access to the goods). The new process introduced a fixed system of goods placement and the need to create

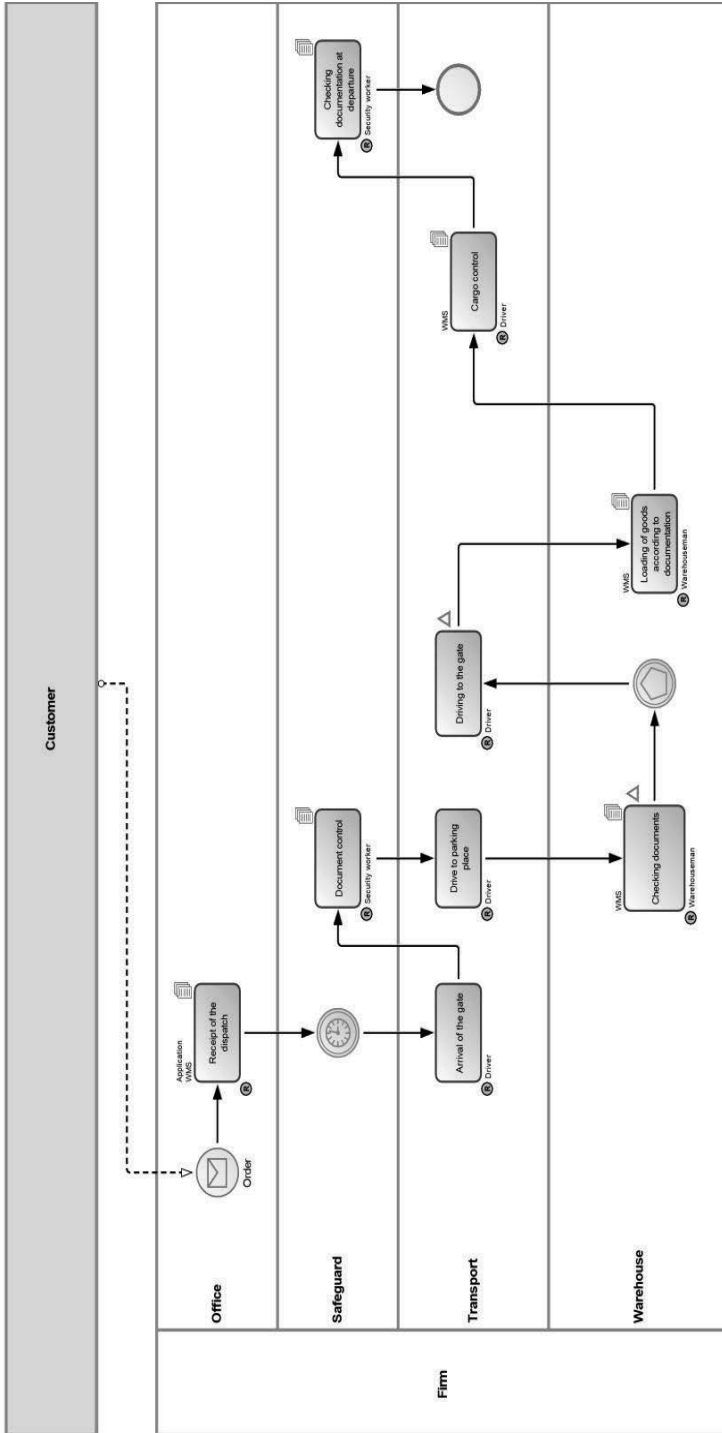


Figure 1. The process of shipping goods from the warehouse created in the ADONIS system

Source: own elaboration.

labels by a magazine employee. This has greatly facilitated the work of logistics specialists, but has encountered considerable resistance from the warehouse staff. Logistic specialists handled the documentation from the WMS system, and the warehouse staff had to learn how to operate the internal bar code system and in minimize way the functionality of the WMS. The model of the target system is presented in Figure 2.

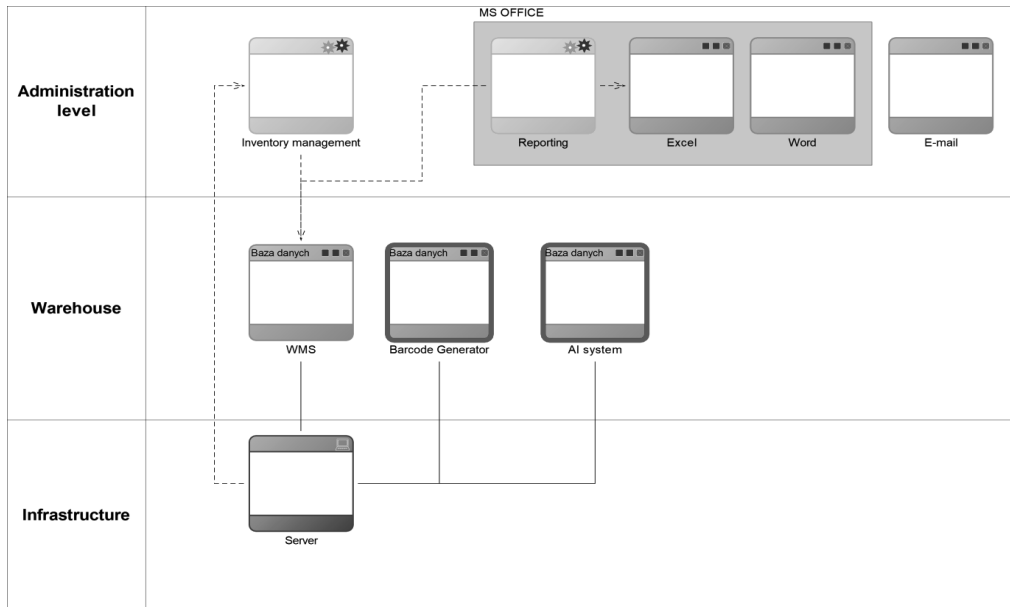


Figure 2. The IT system model of the analysed firm made in the ADONIS system

Source: own elaboration.

The document circulation system has been completely changed. Paper documents have been eliminated until the goods are released from the warehouse, where the approved document is printed for customer and accounting purposes. After consultation with the main clients, the design of the document was also unified to include the necessary information, such as commodity index of the customer or packaging schemes. The target documentation system is shown in Figure 3. In addition, to facilitate document workflows and inventory searches, the internal labelling system was based on commodity index of the customer.

Process analysis and simulation were performed using path analysis and workload analysis with accounting analysis elements. The path analysis allows you to calculate the process execution time for a given path, the waiting time, the storage time, the transport time, and the total process time and cost. The total time for the modeled shipping process was 1 hour and 12 minutes for one 24-pallet truck.

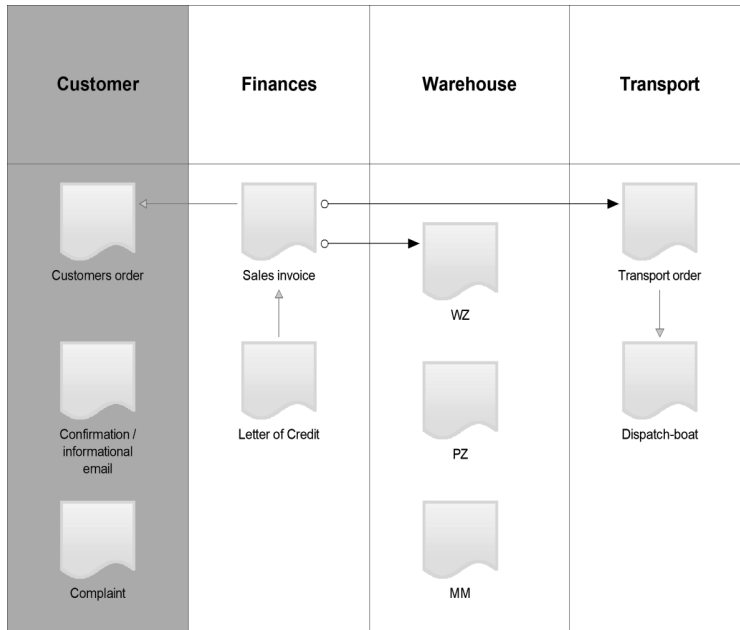


Figure 3. The document model of the analysed firm made in the ADONIS system

Source: own elaboration.

The program's simulation module also allows for stationary and non-stationary analysis of employee use and workload analysis. The system also allows for comparative workload analysis for several processes at once, allowing for a quick comparison of "as is" and "to be" processes. Usage analyses allow identifying bottlenecks, but in contrast to workload analysis, there are no limiting parameters such as length of working day. ADONIS system allows to perform the analysis of the load of the process, employee, work environment or the need for personnel. In the analyzed case (assuming 170 working days per year and 8 hour shift), the most burdened worker is the forklift operator (too few operators on shift) and the least warehouse manager, whose work related to the shipping processes engages him monthly for 3 days and 4 hours. For the purposes of the analysis, hourly wage rates based on market data were also introduced. On this basis, the total monthly personnel costs associated with releases in the company were calculated, which in the to-be model amounted to 1253 euros.

Conclusion

IT tools for business process modeling are gaining in popularity both as dedicated solutions and as components of other systems such as ERP (Enterprise Resource Planning). The most common reason for using them is the desire to increase the transparency of the process, to introduce technological changes, or to change the flow of information. The ADONIS system that extends the BPMN notation with additional models reference is included in this trend. In this way, it not only modeling the process and identifying the resources and information used, but also linking the infrastructure, the organizational structure and the documents and information systems used. This makes it easier to detect resource wastage and avoid suboptimisation in their planning.

Using the tool will not help much if the appropriate organization and the substantive design of the process are provided. Particularly important elements during the preparation of the project are: proper designation of the objectives of the project/process, internal and external integration of the inputs and outputs of the processes, determining the hierarchy of the problems to be solved, avoiding suboptimization, determining methods of data collection and use (including quantitative data) and the correct interpretation of the results of the analyzes. Creating a service / process model is labor-intensive and based on the experience and knowledge of the project manager, but it provides a number of benefits including transparency and simplicity, the ability to monitor change, understand the contribution of individual units to performance, and launching hidden productivity gains.

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PILOT STUDY ON THE BASIS OF IPMA POLAND CERTIFICATION RESULTS

JOANNA RZEMPAŁA,¹ ŁUKASZ D. SIENKIEWICZ²

¹ University of Szczecin, Faculty of Management and Economics of Services, International Project Management Association Poland, POLAND
email: joanna.rzempala@wzieu.pl

² International Project Management Association Poland, POLAND
email: lukasz.sienkiewicz@ipma.pl

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KEYWORDS	project managerial competence, technical competence, behavioral competence, contextual competence, certification of project managers
ABSTRACT	The authors discussed IPMA Competence Baseline, 4-L-C certification system, and substantive essentials of certification on IPMA-D level. In a part related to presentation of statistical pilot study, performed on the data collected between 2015–2016 by the Certification Office of IPMA Poland, potential areas of project managerial competence that need to be developed and improved have been identified, as well as the direction and scope of further study on much larger data sample.

Introduction

Project management is one of the most dynamically developing areas of management. The effective implementation of the project depends both on: the technical aspects of the realization and the competence of the people realizing the project (Goldsmith, Greenberg, Robertson, Hu-Chan, 2010). Individual competences of project managers and members of their teams are the basic factors determining the achievement of the project's success

(Muller, Turner, 2010). Therefore, the competences of project management have become an area of interest for both theoreticians and practitioners (Chomicz, 2015). The following is the definition of individual competences developed by IPMA, published in IPMA Competence Baseline (ICB),¹ presenting both elements of individual competency that are necessary for effective project management, but also their development.

The ICB guidelines contains a description of individual groups of competences, named as technical, behavioral and contextual, indicated as necessary for the effective implementation of the project. It is a universal model that can be used in all business sectors and industries. This means that the appropriate methods and tools can be chosen by the organization, and the individuals should select the appropriate components for a given situation from a wide range of available methodologies, methods, techniques and tools.

Universal four-level-certification (4-L-C) system

The 4-L-C system, developed and implemented by IPMA, arise from the need for a universal career development model for employees involved in project management. IPMA ICB distinguishes four levels of competence in project management (IPMA..., 2006, p. 13):

1. Level D (Certified Project Manager Associate) – covering the competency necessary to properly perform project tasks and act as a member of the project team.
2. Level C (Certified Project Manager) – characterizing the competences of the project manager of projects with limited complexity, and managing people including all stakeholders.
3. Level B (Certified Senior Project Manager) – describing the level of competence of a senior (experienced) project manager who manages people from several organizations or organizational units and representing various fields of knowledge by working in a very complex project.
4. Level A (Certified Projects Director) – covering the competences of a person holding the function of program or portfolio director who manages a complex program or portfolio, managing project managers.



Figure 1. Certification levels

Source: www.ipma.world.

¹ International Project Management Association (IPMA) is an international non-profit organization associating national societies in the field of project management in 70 countries around the world. The mission of the society is to create a global space for activities that shape the future of project management. The main goal of the society is to build a platform for the exchange of experience in the field of project management and the creation of professional and ethical standards for project managers.

The IPMA certification system (IPMA 4-L-C) establishes a process of continuous improvement and development of project management competences. Successive levels of certification are a confirmation of competence, including knowledge and experience for each step of project managers career level. According to IPMA assessment of competences, simultaneously with the increase of the level of experience particular types of competences are more involved in the decision-making process, what implicates that the key element of the assessment is the professional experience of the person taking the certification exam.

Level D – the certification exam

The certification process phases include:

- Stage 1: collecting the application documents, e.g. CV that contain proven experience in project management, self-assessment, etc.
- Stage 2: depending on the level of certification, applicants need to pass a written exam and/or enter an assessment center.
- Stage 3: (optional for levels A, B, C): caring out in-depth interview with individuals.

The scope of research performed in the pilot phase covers only results gained during Level D certification exam, therefore it requires more detailed description. It is expected that at this level of certification candidate will get more than 50% of positive score on the written exam which is divided into four parts:

- multiple-choice test in the area of selected individual competences,
- open questions in the form of an essay in selected competences groups,
- open tasks (descriptive) in the area of technical competences divided into subgroups, items related to: the project environment, stakeholders, and the objective and scope of the project,
- open tasks (computational) that require appropriate problem-solving approach to a case-study.

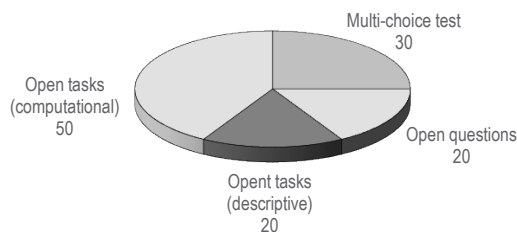


Figure 2. Scoring of individual parts of the IPMA D exam depending on the form of verification (in points)

Source: personal collection.

All competence elements described in the ICB are verified, during the exam. Each item of competence consists of knowledge and experience, mandatory for certification on level D. The competences required in a given area are divided between areas in the following ratio: technical – 70%, behavioral – 15% and contextual – 15%.

Research method

Undoubtedly, it was necessary to perform research on relatively wide range of data. Therefore, the most reasonable was to select nonprobability(purposive) sample of data to represent the whole population. The main reasons were: lack of complete set of records (data collected during the certification process was distributed between several databases), and relatively large diversification of records including representatives of all:

- industry sectors,
- job positions.

The authors of this publication carried out a pilot study. Main objectives were to: identify areas of competence that require development and improvement among people who perform or aspire to perform the function of project manager and set the direction of the next research study on a larger data sample. According to the adopted assumptions, the least developed areas should be reflected in the lower scores gained during the IPMA 4-LC certification process. The analysis of the results of the pilot study was to contribute to the development of the final version of the research model.

The pilot study was conducted on data collected during a certification process in years 2015–2016 (database contains 425 records). The consistency and completeness criterion of the data met 291 records. Among the investigated data were results gained by 64 women and 227 men. Among them 77 persons were acting as a project manager, 32 persons as a middle level manager, 36 persons as a senior manager, 52 persons were representing the position of a specialist, and 94 persons were acting as a project specialist. A full description of the research group is presented in Table 1.

Table 1. Characteristic of the population – pilot study

Industry sector	Job Position					sum
	project manager	middle level manager	senior manager	specialist	project specialist	
Non-public administration	3	2	4			9
Public administration		1			1	2
R&D	1			3		4
Building	16	3	6	5	5	35
Advisory		6	2	8	3	19
Electrical power	23	9	15	17	60	124
IT	10	1	4	7	2	24
Construction	1	4	1	2	2	10
Health care					1	1
Automotive	10	2		4	11	27
Manufacturing	10	2	1	5	3	21
Transportation		1	2		1	4
Services	3	1	1	1	5	11
Sum	77	32	36	52	94	291

Source: personal collection.

The research procedure adopted during the pilot study assumed standardization of data (especially in terms of naming industry and positions in individual records), checking the normality of the distribution of collected data and the selection of appropriate statistical tools.

The scale of measurement used by IPMA Poland, for the assessment of individual competences, is ordinal. Assessment assumes values in the range of 0 to 10 with 0.5-degree scale. The authors of this publication are aware that such nature of collected data limits significantly acceptable statistical operations, due to the lack of normal distribution in the observation (it was confirmed during data analysis in XLSAT 365 module/MS Excel tool). The authors decided to present selected results of the study in a simple form (i.e. report) prepared on the basis of raw data (Figures 3–8) and normalized data for the mean score values calculated from the results of the exams, in the distinction into industry sectors and job positions (Figures 9–10).

Mean values presented on charts have been scaled on the basis of frequency of individual results, categorized for the industry or position in the whole studied population. The mathematical transformations carried out on the data had been made as follows:

1. Calculation of the score gained during exam:

$$V = \frac{V_2 - V_1}{V_1} \quad (1)$$

where:

- V_1 – percentage value of contribution in all exams in 2015–2016,
- V_2 – percentage value of average calculated on the basis of gained scores.

2. Min-max normalization to the values from min-max range – mean score values (V'):

$$V' = \frac{V - V_{\min}}{V_{\max} - V_{\min}} \times (m_{\max} - m_{\min}) + m_{\min} \quad (2)$$

where:

- V – value from point 1,
- V_{\min} – min value from input data range V ,
- V_{\max} – max value from input data range V ,
- m_{\min} – min value of V' in normalized data, in this case it is the min value of the set of mean values calculated on the basis of the exam scores,
- m_{\max} – max value of V' in normalized data, in this case it is the max value of the set of mean values calculated on the basis of the exam scores.

The lack of a normal distribution of the collected data made it impossible to reliably evaluate gained results. Some percentage contributions of industries or job positions were at the level of 0.31% and those where the value was 16.70%. Conclusions from data on such incomparable distributions were possible after standardization of the arithmetic mean value presented as percentage values (equation 1) and the linear transformation of the original data (equation 2) to the standardized values calculated in point 1.

The collected results do not constitute a comprehensive static analysis possible for such a set of data, therefore authors decided to present them as a report with highlighting an important issue that should be considered and included in the final study (results of the final study will be developed and published in the future).

The research results

The first step in research was an analysis of the gained scores. The exam is evaluated positively if the total number of scores from all areas is above 50%. In the studied population over 75% of people gained a positive result, and the average rating of all scores was 62.7 points (Figure 3).

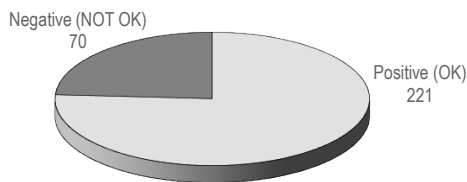


Figure 3. IPMA-D scores – number of OK and NOT OK results; population of 291 persons

Source: personal collection.

The scores gained in selected competence groups have been presented on Figure 4. The results indicate that the contextual competences were known the best. The lowest number of scores was noted within the technical competence.

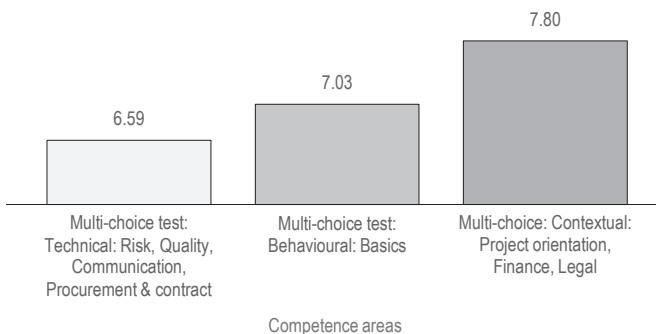


Figure 4. Results of multi-choice test – selected areas of individual competence (scores)

Source: personal collection.

In the open questions(descriptive), candidates write an essay about tough situations presented in the case study. The scores gained in behavioral and contextual competence area are much better then technical area (Figure 5).

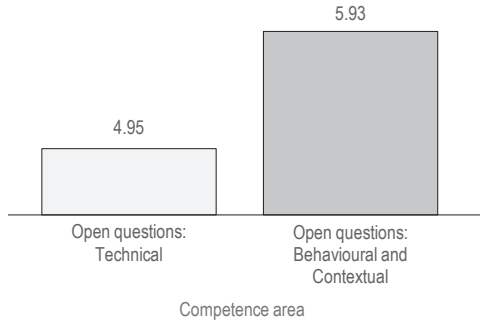


Figure 5. The open questions (descriptive) results (scores)

Source: personal collection.

Area of technical competence is also verified by open and computational tasks. Open tasks require the preparation of project context analysis with stakeholder analysis, as well as objectives and scope of the project. Collected numbers show that project managers gained the highest scores in objectives and scope analysis (i.e. 5.06/10 and 5.15/10) than other job positions (results have been presented on Figure 6).

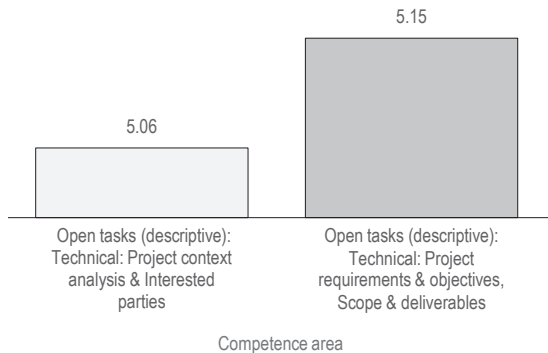


Figure 6. The open questions results – selected technical competence (scores)

Source: personal collection.

Competence like scheduling, resource management, cost management, risk analysis and evaluation or project status are examined by open tasks (computational). The higher scores presented on Figure 7 are usually gained in scheduling. The worst results are usually gained in the cost planning and project monitoring (EV method). Nowadays cost management, as well as project monitoring is strongly supported by IT tools, therefore it might be the reason of such low scores in these areas.

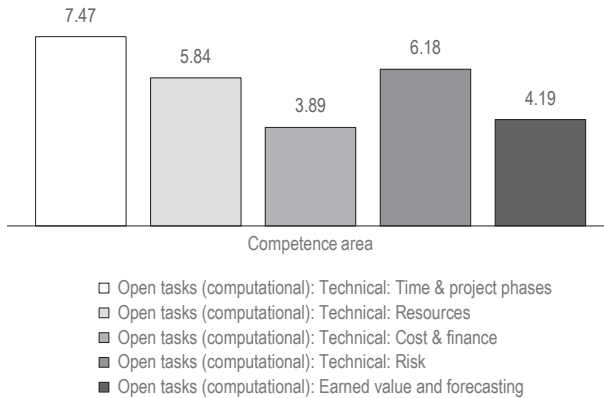


Figure 7. The open task(computational) results – technical competence (scores)

Source: personal collection.

Comparing the mean score values gained in different parts of exam, could be concluded the highest scores are gained in the multi-choice test part related to contextual competences. The worst score was gained in the area of competence elements related to planning and cost monitoring (Figure 8).

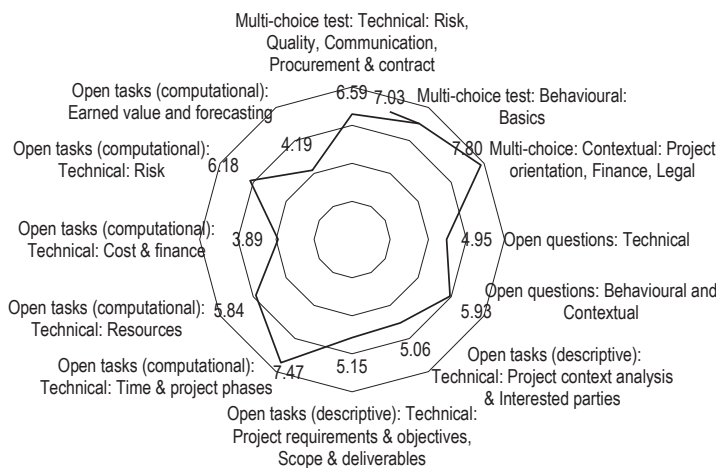


Figure 8. Mean score values in individual parts of the exam

Source: personal collection.

As a part of pilot study, the authors of this article analyzed scores gained during exam in distinction to individual industry sectors. The highest mean score values have been gained in *electrical power* and *advisory* industry sectors. The worst mean score values have been gained in *construction* industry sector (Figure 9).

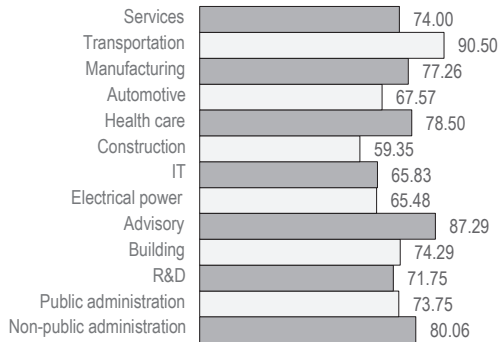


Figure 9. The mean score values in distinction to industry sectors – normalized on the basis of the contribution to all exams in 2015–2016

Source: personal collection.

Analysis of the results on the basis of the job position distinction indicates that project managers and project management specialists gained the highest scores. Very similar scores have been gained by middle and senior managers (Figure 10).

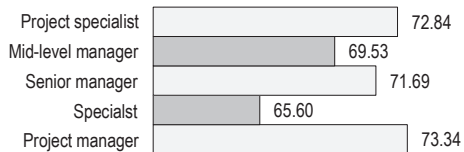


Figure 10. The mean score values in distinction to job position – normalized on the basis of the contribution to all exams in 2015–2016

Source: personal collection.

Conclusion

The analysis of pilot study outcomes allows to conclude as follows:

1. In the studied population, the worst developed is technical competence area, on the opposite side are the most developed contextual competence area. Lack of wide range of knowledge in technical competence could be a key failure factor (Musioł-Urbańczyk, 2010).
2. Contrary to popular opinion, behavioral competence are not the best developed ones (Klimiuk, 2009; Januszkiewicz, Kowalska, 2015).
3. The worst developed competence are related to cost management and project monitoring what has been confirmed by open tasks (computational).
4. Low scores gained in open tasks (computational) indicate poorly developed competence related to project managerial tools and techniques.

5. The score values gained in open questions indicate poorly developed competence related to stakeholder analysis.
6. The mean score values differ significantly between different industry sectors, the root cause could be different level of maturity of organization.
7. The highest mean score values have been noticed in the group of project managers and project team members; it seems to confirm the foundation presented in ICB 4.0, where abilities, not only knowledge and skills are very important.

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TALENT MANAGEMENT IN THE CONTEXT OF SERVICE COMPANIES

TOMASZ SMAL,¹ ROBERT BALCERZYK²

General Tadeusz Kościuszko Military Academy of Land Forces in Wrocław, POLAND

¹ e-mail: t.smal@wso.wroc.pl

² e-mail: r.balcerzyk@wso.wroc.pl

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ABSTRACT

The main aim of the research presented in this article was to diagnose the process of talent management in small and medium-sized companies in the Lower Silesian Voivodship. In order to achieve the goal, the first part of the article explains the meaning of the term “talent” in the literature of management sciences. Then, on the basis of the research conducted (at two higher education institutions), attempts were made to answer the following questions: how companies develop employees’ talents and how they acquire talented personnel. Based on the research, conclusions that can be used to improve the talent management system in question have been drawn.

Introduction

Over the past several decades the dominant concepts of organization and management have undergone a specific evolution. In today’s world, talented employees constitute the “added value” to a company. It is easy to buy a new technology, but preparation and motivation of employees is a capital that is built relatively long and cannot be copied.

Full implementation of development programs within the scope of “talent management” projects requires involvement of chief executives, all managerial staff and HR sections and departments.

Effective talent management is primarily based on planning and building career paths. People are treated as the most valuable “resource” of an organization. It is thanks to them that an organization gains an advantage over the competition. It should be noted, however, that the same people constitute the “critical mass” in every organization. The development of employee competencies has become the key activity of the management staff. Managers recognize the importance of talent for the development and functioning of an organization.

Modern organizations (based on knowledge) are in increasing need of talented people. Employees – outstanding specialists and individuals who are talented and dedicated to a company – provide survival of an organization on today’s market and its competitive advantage. Demographic indicators predict shrinking of labor market resources. Based on the analysis of the costs of hiring and searching for such persons, it is cheaper to hire a talented employee and take care of his or her development than to seek one out on the external market.

The concept and essence of talent in the literature of management sciences

The concept of talent has various definitions in the literature on the subject. The concept itself originates from the Greek word *talanton*, which meant a hurdle difficult for one person to overcome (Chelpa, 2015).

S. Borkowska claims that talents are entrepreneurial and creative people who have high growth potential and who constitute kind of a lever for increasing company’s value (Borkowska, 2015). According to A. Poczowski, talent is an individual who pursues an internal goal, unchanged for a longer period of time, and simultaneously brings his or her own goal to an organization (Poczowski, 2008). Likewise, K. Głowacka-Stewart believes that “talent is anyone who can significantly influence current and future achievements of his or her organization (Głowacka-Stewart, 2006)”.

By definition, talent can be every employee of an organization. This definition highlights both current results and achievements of an employee as well as his or her potential.

“The terms “talent management”, “talent strategy”, “succession management”, and “human resource planning” are often used interchangeably (Lewis, 2006)”.

It should be kept in mind that there is no single universal program for “talent management” that can be copied and implemented in every organization. This is due to the fact that companies differ in strategy, objectives and organizational culture. In practice, it means that there must be different systems of talent development in organizations.

Methods and characteristics of the research sample

The following research methods were used in the studies presented in this article:

- the critical literature review method (literature in the field of talent management, employee development, career paths),
- participant observation method (related to running one’s own business),
- the analysis of secondary sources (studies of similar scope),
- diagnostic survey with company employees related to sub-functions of personnel management.

Triangulation of research methods was used in order to authenticate the research. This allowed to obtain a broader context of the studied phenomenon and ensured a higher quality of the conducted research. Differentiation

of methods was aimed at obtaining consistency of the empirical basis for inference. The **diagnostic survey method** was adopted as the leading (main) method in the research work, while others were used as ancillary (supplementary) ones.

The **survey** questionnaire was developed based on literature analysis as well as participant observation. The questionnaire was designed for students (non-stationary studies) of two higher education institutions in the Lower Silesian Voivodship. The respondents, people with whom the survey was conducted, were distinguished in the questionnaire based on gender, age, company size, workplace and place of residence.

80 students participated in the pilot study. Most of the respondents were women – 84%. Men constituted only 16%. The structure of the examined group according to gender is shown in Figure 1.

Most of the respondents were young people in the age group between 19 and 24 and they accounted for 49% of the studied group. One fourth of the students surveyed were aged 25–35 (25%). The smallest group consisted of students in the age group over 40 (11% of respondents).

This is primarily due to the fact that non-stationary students are usually young people who make decisions about further education, profession, development of interests and abilities as well as deepening their own skills. In this period of life, a person learns himself or herself and experiences various occupations at school or part-time job.

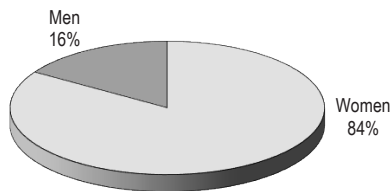


Figure 1. The studied group according to gender

Source: own study.

These people are in the process of preparing for a career or early professional career, during which crystallization, narrowing of the field of exploration and finalization of a profession choice occur. They deepen their professional competences, shape plans for the future and professional ambitions. The age of respondents is shown in Figure 2.

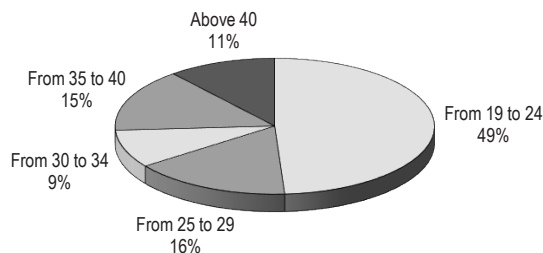


Figure 2. The studied group according to gender

Source: own study.

Students working in companies that hired more than 100 employees constituted the majority of the sample. Approximately 17% of respondents were employees of companies that hired from 21 to 50 people. Companies hiring between 51 to 100 employees were represented only by 3.7% of respondents. The research was conducted at higher education institutions outside Wrocław. Students of these institutions are residents of neighboring villages and smaller towns. Therefore, the respondents were mostly employees of small and medium-size companies. The employment of respondents broken down by the company size is shown in Figure 3.

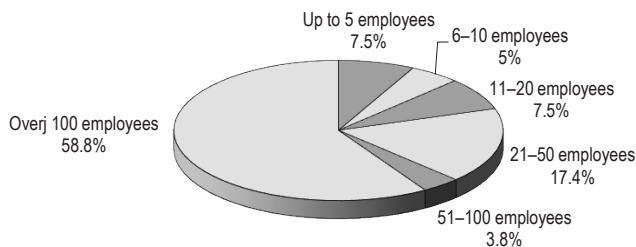


Figure 3. The employment of respondents according to the company size

Source: own study.

More than one third of the surveyed respondents were residents of small towns with up to 25 thousand inhabitants. Rural residents, 31%, constituted not much less. A relatively small group of the respondents were residents of towns with the number of inhabitants up to 50 thousand (15%). Only 6% were residents of bigger cities. Therefore, the respondents were employees of small and medium-size companies.

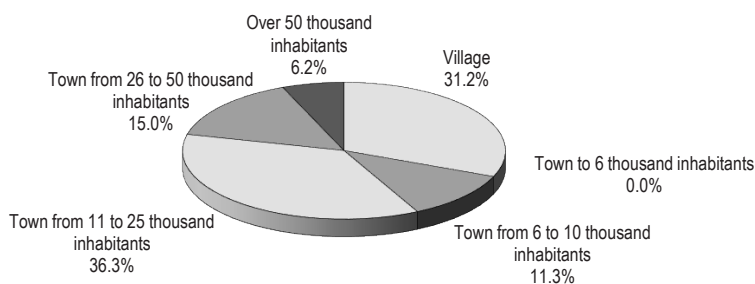


Figure 4. Respondents' place of residents

Source: own study.

Acquisition and development of talented employees in the context of own research

In one of the first questions, respondents were asked to comment on the sources of talent acquisition by service companies (Figure 5).



Figure 5. Opinions on sources of talent acquisition for organizations (service companies)

Source: own study.

For almost half of the respondents, the main source of talent was identifying people without required skills with potential for development. This was the opinion of all respondents living in towns from 6 to 10 thousand inhabitants (Figure 6). Approximately 36% of respondents believed that talented people could be acquired for an organization by cooperating with higher education institutions on the ground of teaching (developing) needed skills. All employees of big companies (51–100 employees) were of this opinion. In practice, big companies recruit future employees (talented people) already during their studies. Representatives of big companies are part of department program boards and participate in designing a professional profile of a graduate as well as learning outcomes. In contrast, respondents from companies that hired from 6 to 10 employees did not see cooperation with higher education institutions as a source of recruitment. On the third place, the respondents mentioned employee recruitment from previously unused sources. It is worth noting that none of the respondents saw the possibility of recruiting talented people among retired soldiers, policemen and firefighters. If we take into account the fact that respondents considered a talented person to have a high development potential, be entrepreneurial and creative (45% of the respondents were of this opinion), it is a group with a huge reservoir for management staff. P.F. Drucker (as one of the greatest thinkers and theoreticians of management in the 20th century) claimed during his lectures that military officers were among the most effective and efficient managers.

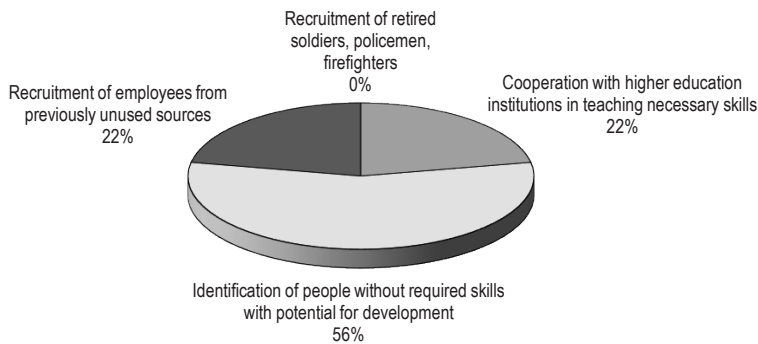


Figure 6. Respondents' opinions on sources of talent acquisition for organizations (residents of small towns – from 6 to 10 thousand)

Source: own study.

The research conducted attempted to determine the reasons for the fluctuation of talented persons. The reasons for job resignation by talented persons are shown in Figure 7.

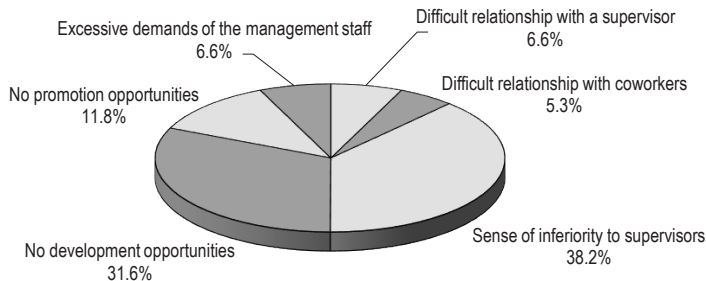


Figure 7. Respondents' opinions on the reasons for resigning from work by talented persons

Source: own study.

A significant proportion of the respondents (38.2%) held supervisors responsible for their job resignation, claiming that the supervisors made them feel undervalued. Approximately 31.6% stated that the reason for leaving the company was the lack of development prospects. Nearly 12% of the respondents believed that the reason for the resignation from the company was the lack of promotion opportunities. Such responses may be surprising since most of the respondents were employed in big service companies (over 100 employees). This shows that people (employees) are not perceived as company's capital (added value). There is no investment in their development and no opportunities for promotion and professional development are created. It should be borne in mind that proper use of these "assets" could bring measurable effects and benefits to a company. The fact that only two people among the respondents had an employer who funded their studies indicates that employees are objectified. Persons holding managerial positions at all levels should be involved in the development of talented persons and give them chances for promotion. Supervisors do not design individual development paths for their employees. It should be emphasized that is what employees expect from their supervisors.

Difficult relations with a supervisor (6.6%) and excessive demands of the management staff (6.6%) were marginal reasons for resigning from work. Moreover, difficult relations with coworkers were the reason for leaving the company for only 5.3% of the respondents. At the same time, it should be mentioned that no person indicated this reason. Employees of small service companies with up to 20 workers were of similar opinion. There is probably a better working atmosphere in smaller companies. Relations between employees are closer.

Different answers were given to this question by employees aged 30–40 (Figure 8).

In the first place, they mentioned the lack of development prospects (36.8%). According to them, the significant reasons for job resignation is a feeling of being undervalued by supervisors (26.3%) and no promotion opportunities (26.3%). These people had clearly defined expectations of employers. They were at the stage of early career, during which the crystallization and the selection of profession occurred. These individuals wanted to deepen their competences and meet their professional ambitions. Considering the fact that the majority of them were employees of big companies, it can be assumed that their expectations regarding development and career advancement were greater.



Figure 8. Respondents' opinions on the reasons for resigning from work by talented persons (respondents aged between 30 and 40)

Source: own study.

The respondents were asked for a diagnosis of factors influencing the acquisition of talented persons. This is shown in Figure 9.

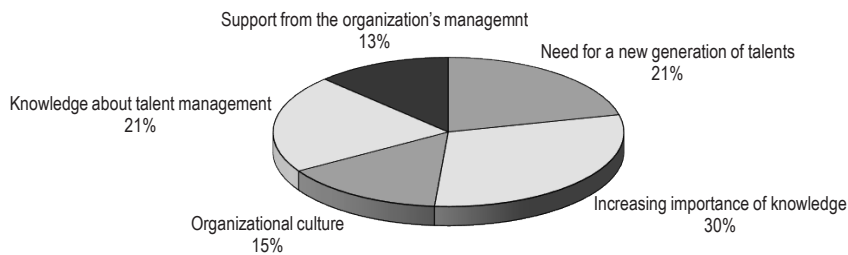


Figure 9. Respondents' opinions regarding the factors influencing the acquisition of talented persons

Source: own study.

Approximately 30% of the respondents saw the growing importance of knowledge as the main factor in acquiring talented employees. Employees in an organization occupy different positions and fulfill a variety of functions (e.g., management, independent professionals or team leaders). Hence, they can be differentiated according to different criteria, for example according to their position in the organizational structure and tasks related to the creation of knowledge. The respondents appreciate the importance of knowledge in the functioning of a company in the age of globalization. The functioning of a company in the modern environment should be based on knowledge. Reference may be made to the theory of B. Mikula that divides knowledge workers into three groups: knowledge practitioners (first line of business), knowledge constructors (middle management) and leaders of knowledge (chief management) (Mikula, 2012, p. 22). Within the framework of each of the identified groups of people working for an organization, one more cross-section category of particularly talented people can be identified, the so-called talents.

According to the respondents, the need for a new generation of talents (21%) and knowledge about talent management are important. The support from the organization's management (15%) and organizational culture (13%) are less significant. In a sense, these two factors are interconnected. Conduct of the management staff is a result of accepted behaviors and their results.

In the conducted diagnostic survey, efforts were made to determine which group of employees the talent development programs are directed at. This is depicted in Figure 10.

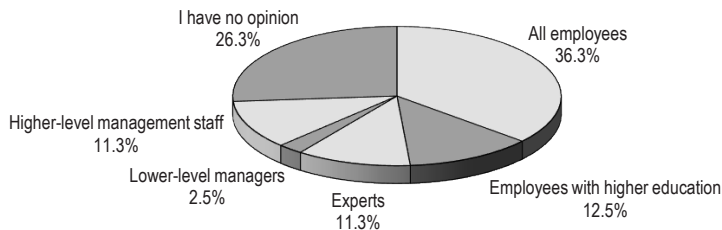


Figure 10. Opinions regarding the beneficiaries of talent development programs

Source: own study.

The vast majority of employees (36.3%) claimed that talent development programs were directed at all employees. More than 12.5% of respondents believed that these programs were directed at employees with higher education. Approximately 11.3% of the research sample indicated that the beneficiaries were experts and higher-level management staff. Only 2.5% were of the opinion that these programs were directed at lower-level managers. More than 26% of respondents had no opinion on this subject and they probably were individuals working in companies where the concept of “talent management” did not function.

The research results confirm that in practice two types of talent programs can be distinguished. The first one constitutes manager programs, which are directed at managers at different levels (from the first managerial positions to the top – directorial ones), or business managers. Typically, there are several types of managerial programs in companies, and their purpose is to prepare employees (talented) to exercise managerial functions. It should be borne in mind that good experts are reluctant to be promoted to managerial positions. Sometimes the reason is the lack of such an opportunity, but also the attempt to avoid a situation where a good specialist is lost, and, what is more, it takes too much time to prepare new person to replace him or her.

The second type of development programs in the framework of “talent management” refers to expert programs. They are focused on the development of employees with skills and knowledge particularly important for a company. Experts may be difficult to acquire from the outside and may be also unique in the region or country. Therefore, such programs aim at retaining experts in a company by providing them with a systematic improvement of substantive competences. These programs are directed at people who are not interested in a managerial career, but they have unique competences.

Men, on the other hand, believe that developmental programs are not directed at neither lower nor higher-level managers. Approximately 63% of them stated that the programs were aimed at all employees. The answers were different among employees over 35 years old (Figure 11).

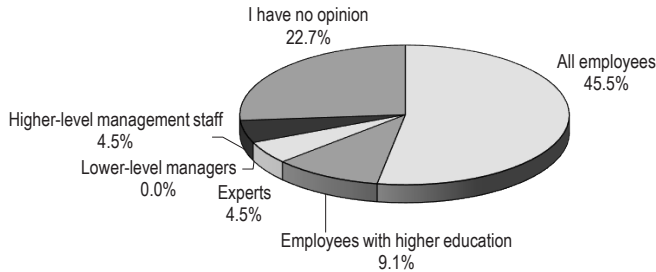


Figure 11. Opinions regarding the beneficiaries of talent development programs (according to respondents over 35 years old)

Source: own study.

In companies that have implemented the “talent management” programs, nearly half of employees believed that talent development programs were directed at all workers (45.5%). Only 9.1% of respondents are of opinion that these programs are exclusively meant for individuals with higher education. Therefore, it can be assumed that a part of people that took part in the study is included in development programs in their companies. However, a part of employees (surveyed students) complement their competence gaps (by taking up studies at university) when they see a chance to use such plans.

The research sought to determine what attracts talented persons to work in a particular company. The results are shown in Figure 12.

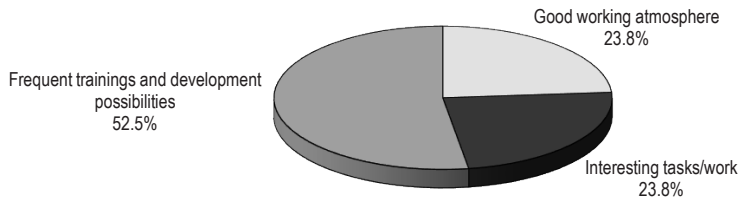


Figure 12. Opinions regarding the process of motivating talented persons

Source: own study.

More than half, 52.5%, of respondents said that a good working atmosphere is the main motivation for talented persons to work in a particular company. Creative and idea-seeking employees are aware that good working atmosphere gives the opportunity to create a harmonious team and increase engagement in the company’s functioning. This in turn translates into efficiency. If there are clashes, conflicts and jealousies between employees, a company experiences stress that paralyzes all activities. Work should be associated with satisfaction, joy and something pleasant. Good working atmosphere causes burnout to go into oblivion.

Almost 24% of the respondents believe that implementation of interesting tasks (work) motivates talented people to work. In companies that employ up to 10 workers no one expressed such opinion. The same number of respondents (around 24%) claimed that training and development opportunities encouraged employees to take up

employment in a particular company. None of the employees of smaller companies (up to 20 workers) gave this answer.

In small companies, talented persons have limited development opportunities. They cannot also count on tasks that are more responsible, complicated and require special abilities. The work is rather monotonous and does not demand higher engagement.

Conclusions

To summarize the issue of “talent management”, it should be stated that appropriate conditions are required to have them revealed and developed. It takes time to get to know the area of an employee’s activity, in which information used for talent development is acquired. The implementation of “talent management” programs primarily fosters the growth of company’s competitiveness on the market, supports the organizational culture, keeps talented employees in a company, ensures the influx of new talented workers and shapes a positive image on the external labor market.

The research conducted shows that the implementation of “talent management” programs, their preparation and specific actions related to the acquisition, evaluation, development as well as keeping (retention) of talented persons have been a great challenge for companies. It seems that companies wishing to develop “talent management” programs first need to focus on identifying talents among people currently employed in an organization and create such working conditions that will give them the opportunity to grow, be promoted and implement interesting and difficult challenges. The task of companies is not only to acquire and develop the possessed talents, but also to ensure that talented persons want to remain in the organization. The retention of talented individuals in a company must be accomplished by supporting their development, shaping their motivation and recognizing their unique value, as well as creating the belief about their recognizability and importance for an organization.

Organizations should use creative forms of external recruitment such as recruitment of retired employees of uniformed services and students still learning, as well as find talents among persons already employed in a company.

The research conducted had a pilot nature. The results proved quite a surprise for the authors of the article, thus studies will be continued in the future in the framework of a research project including a larger group of respondents (service companies and military units). The results of research conducted in service companies will be the point of reference for the analysis of research results related to talent management in the Polish Armed Forces.

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CHARACTERISTICS OF SERVICES AND THEIR CONSEQUENCES FOR THE STRATEGY OF SOCIAL RESPONSIBILITY

EDYTA SPODARCZYK

Akademia Morska w Gdyni, POLAND
e-mail: e.spodarczyk@wpit.am.gdynia.pl

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ABSTRACT

There are different approaches to social responsibility in practice of Polish companies. Apart from companies that have professionally developed social responsibility strategies linked to corporate DNA, there are also those that understand social responsibility mistakenly, identifying it with philanthropy, for example. Adapting the corporate social responsibility strategy to the specific nature of an enterprises operations allows them to act responsibly and at the same time in the interests of their business. Therefore, the question arises about the nature of these activities and the so-called good practices in service companies. May the nature and characteristics of services (intangibility, diversity, inseparability, i) affect the development of social responsibility strategy and selection of good practices? The aim of this article is to point to the consequences for the CSR strategy, resulting from the nature of the services. To realize this aim, author conducted literature study. Method of synthesis was used to inference.

The service and its characteristics

There are many definitions of the term “service” in the literature. The multitude of definitions and their diversity makes it difficult to grasp the essence of this notion.

The Polish language dictionary defines a service as “help shown to someone” or “business activity serving the needs of people” (Doroszewski, 1996).

In marketing terms, the service next to a product, place, event, experience, organization, value, person, information and idea is the category of the product. The product, however, is the subject of marketing activities, which in its essence is a set of benefits to the customer (Kotler, Keller, 2012). To provide benefits to the customers and thus to meet their needs, apart from the knowledge of these needs, it is also necessary to understand what is the object of marketing, in this case – the service. A simple definition of the service, similar to the dictionary definition, is given by M. Pluta-Olearnik, who states that the service is the benefits offered for sell, essentially intangible and subjectively assessed by customers (Pluta-Olearnik, 1993).

Ph. Kotler defines a service as any action that one party can offer to another; it is impenetrable and does not lead to any property. Its production may but does not have to be related to the physical product (Kotler, 1996).

In a similar manner, indicating that the service is an action (activity), it is defined by A. Payne. However, in Payne's terms, the service does not have to be completely intangible, it is sufficient that there is an element of immateriality. According to Payne, the service is any activity that incorporates an intangible element that involves the interaction of the customer or the object or property in his possession and which does not result in the transfer of ownership.

The transfer of the ownership may, however, take place and the provision of the service may or may not be closely related to the material good (Payne, 1997). The definition proposed by A. Payne on the one hand is very universal. It confirms T. Levitt's observation, that there is no such thing as a service industry. There are only industries that provide more or less services than others. They all provide services (Levitt, 1972). On other hand, such a broad view of the essence of the service may give the impression that the activities of manufacturing and service companies are not significantly different. What is the service? It may be intangible, but it may only contain an element of immateriality. It does not cause the transfer of ownership, but it is possible in some cases. Such an approach may contribute to erroneous decisions of managers who will not take into account the specificity of services in their decisions.

These definitions, according to the author, do not fully reflect the specificity of the service. They may provide the basis for theoretical considerations on the essence of the service, but from the perspective of the organization practice, their usefulness is reduced. Doubts about the nature of the services are largely dispelled by the concept of continuum proposed by G.L. Shostack (Shostack, 1982 for Mudie and Cotton, 1998). Shostack has developed a scale in which she has placed categories of products ordered from material products (products) to intangible products (services). Moving from the left to the right, the products lose their tangible, material character, until the opposite pole, there is no possibility to perceive the product by means of the sense of sight, touch, taste, hearing, smell.

By analyzing the concept of continuum, we can agree with T. Levitt's earlier opinion that the service is provided by everyone. In each offer there is (may be) intangible element. Apart from this, the organization should provide the client with the desired set of benefits. However, as the product loses its material character, the customer may find it increasingly difficult to make a choice. The reason for this is not just the intangible nature of the offer. Intangibility, in other words, is the cause of the remaining features of the service. By moving to the right side of the scale, characteristic features of services appear, such as diversity, inseparability and impermanence, and the previously mentioned intangibility.

As mentioned above, the intangible nature of the service makes it impossible for a customer to assess the service before buying using the senses. Inseparability is a feature that is associated with the simultaneous

production and consumption of the service (the process is often preceded by the sale of the service). In many cases the customer must participate in the process, as this is a condition for satisfying the need (eg legal advice). In a particular situation, a service can have specific effects for the body (eg hairdresser, masseur, doctor) or the customer's mind (eg education, psychotherapy) (Lovelock, Wirtz, 2011). What is more inseparability involves the contact of a person providing the service with a customer, and often the involvement of the customer in the service delivery process. Diversity means that it is difficult to standardize the services, preserve their uniformity and quality. Such variability of services is related, on one hand, to the person who provides the service, its competence, state (fatigue, nervousness, etc.), the time of service, and the way it is performed. On the other hand, the variability of services can be affected by the customer. Emotional state, physical condition and attitude of the buyer can affect the perception of the service. Services, due to their immateriality and inseparability, are generally unstable. They can not be stored or produced for stock.

The features of services evoke the implications in the strategy of service organization. In this area the activities of the organization are reduced to the limitation of these qualities because they are disadvantageous from the point of view of the organization and the customer (see Table 1).

Table 1 Characteristics of services and the limitation of their impact

Features of the service	Limiting the impact of service features
Immateriality	Place (external and internal appearance of the organization). People (busy staff, adequate staff for quick service). Equipment (modern equipment). Information materials (folders, simulators, brochures, photos). Symbols (organization name, logo). Price
Inseparability	Selection of employees. Staff training. Customers commitment to the production and delivery of the service requires the care of the way of production. Material certificates (place, equipment, etc.). Communication with the customer
Variability	Selection of employees. Staff training. Motivating employees. Introduction of procedures. Partial automation of the service process. Caring for the atmosphere in the organization. Communication with the customer
Instability	Price differentiation. Stimulation of off-peak demand. Complementary services. Reservation systems. Employment of additional staff during peak hours. Applying procedures to improve peak performance. Increasing of customer participation

Source: own study based on Mudi and Cotton (1998).

Customers who make a purchase decision are accompanied by uncertainty and risk, resulting from the lack of knowledge of what value they will actually receive, how it will be delivered, and the consequences of the decision. In fact, the customer must trust the service provider, his competencies, honesty and good will when selecting

a service offering. Customers often risk the loss of material value. As examples can serve decisions about the usage of medical services (risk of loss of health or even life), financial (risk of loss of property, means of living) or legal (risk of loss of freedom, good name). In view of the above, the service organization and the people who on behalf of the organization provide services are responsible to customers. Many service companies are aware of this responsibility. Some of them include responsibility in their strategy or develop a strategy of social responsibility. The specificity of the CSR strategy in service companies will be discussed later in this article.

Strategy of social responsibility

The ISO 26000 Guidance on Social Responsibility, published by ISO International Organization for Standardization (ISO 26000), is an attempt to organize different approaches to define and interpret this concept. This standard is universal and can be used by various organizations (corporations, non-profit organizations, local governments, etc.). It defines the concept of social responsibility as "The organization responsibility for influencing its decisions and actions (products, services, processes) on society and the environment through transparent and ethical behaviour (www.odpowiedzialnafirma.pl/o-csr/iso-26000, lipiec 2017).

Despite the popularisation of the concept of social responsibility and consequently increasing awareness of its assumptions within the organization, the implementation of social responsibility in practice is still insufficient.¹ The practices of many companies indicate that social responsibility is primarily just another way to build an image. Often, actions declared as socially responsible come down to occasional philanthropy or are simply necessary to stay on the market (such as ensuring product quality, quality of customer service, facilities for disabled customers, etc.). Few companies treat social responsibility as an integral part of the strategy (see Spodarczyk, Szelągowska-Rudzka, 2015). The knowledge of the concept of social responsibility is varied. In many cases, good practices are the manifestation of the willingness to do something for a shared, social benefit. The problem is that, these benefits, as well as socially responsible activities in which companies are engaged, appear to be a coincidental. They are not related to business activities, so not always the benefits of the companies are those they expect and those that would be relevant to the problems and goals of the organization. It would be advisable to develop a model of CSR, which takes into account the specificity of the company which include the specifics of the company, with particular emphasis on the problems and strengths, and local character of the activity (cf. Spodarczyk, 2016).

By developing a CSR strategy, the following steps can be taken:

1. Define the problems to solve.
2. Identify where the areas of corporate social responsibility violate stakeholder interests.
3. In the context of defined problems formulate the goals to achieve.
4. Identify the benefits that can be achieved by resolving problems/achieving goals.
5. Choose areas of social responsibility based on point 1 and 2.
6. Plan good practices that lead to the achievement of the chosen benefits.
7. Check if there is a possibility to get involved in the activities that have already started (see Spodarczyk, 2016).

The above approach will also allow to limit the barriers that entrepreneurs meet while implementing socially responsible activities. This particularly applies to the incurred costs and to the extra time spent by the owners and

¹ Critical evaluation of socially responsible practices has been included by the author in Spodarczyk (2011), pp. 5–18

employees. It will happen because social responsibility will be an investment rather than a cost, a way to solve problems, and not an action detached from the problems of the enterprise.

The implications for social responsibility strategy arising from the characteristics of the services

The starting point for further action in the scope of corporate social responsibility should be an area of organizational order. This is where the role of corporate social responsibility in the organization is defined and the main principles of its functioning are defined. Good practices establish a corporate social responsibility strategy and its place in the practice of the company, and thus the role of top management in supporting the implementation of the strategy (see Lewicka-Strzalecka, 2006; Porter, Kramer, 2007; Adamczyk, 2009; Lenssen, 2009).

The author believes that the strategy of social responsibility should be synonymous with a declaration of fair and ethical business behaviour, as trust is particularly important in relation to customer-based relationships in the case of services. The customer is placing himself at the service provider disposal. It is the company and its employees who have the knowledge and skills necessary to meet the needs and expectations of the customer. Therefore, ethical attitudes and responsibilities for the actions and consequences of these actions should be expected from service companies and their employees. These expectations can be realized by good practices in the area of employee issues.

Practices in the area of employee and consumer issues should be subordinated to the principles of building relationships based on trust, partnership and respect. Values such as honesty, responsibility, customer care (including internal care), supported by competence, should be constantly promoted and practiced in corporate relationships. In service everything depends on people. It is important not to only write the above principles in the strategy. More important is to make them the real value for the chief executive/owners and allow them to influence the recruitment, training, communication and motivation processes. Only in this way can the organization ensure clear and ethical actions directed at consumers.

Thus, two main groups of stakeholders are emerging for service companies: employees and customers. Service providers are close to these stakeholders as socially responsible organizations can offer solutions that are not detached and have added value. These solutions, as previously mentioned, should take into account the characteristics of the service (intangibility, inseparability, diversity, instability) that are a problem for the buyer, which, among other things, contributes to the difficulty of managing the services. Due to the features of the service, when planning good practices it is worth taking into account some indications. Their aim is to limit the buyer/service-related risk and the consequences resulting from the usage of the service by:

1. Educating consumers (providing knowledge about both positive and negative consequences of service usage, indicating the criteria for choosing a particular service category). For this purpose, websites, leaflets and, above all, the knowledge and experience of employees, who should be motivated to communicate to their customers (even at the expense of customer resigning from the service if there are reasons for this) can be used.
2. Preparation of comprehensive, transparent, accessible and legible information within the material evidence of services. If there is a possibility of pre-post simulation, offer the client the option. Offer customers consultation in case of doubt.
3. Due to the inseparability of the provision and consumption of services, provide safety and comfort to both customers and employees.

4. Awareness of the employee impact on quality of service and service should be the basis for offering attractive employment conditions to employees (contract of employment, adequate wages for employee involvement and competence, training system, working atmosphere, etc.). In many service industries the working conditions are unsatisfactory, and this indirectly contributes to customer discontentment.
5. Employment of competent staff and continuous care for their qualifications. Training and motivation of employees should not only be focused on their substantive competence, but also on the very important social competence of their service contacts. Employees should be also aware of their responsibility. Ethical principles should be reflected not only in ethical codes, but also in procedures and values represented by employees.
6. The diversity of services is a consequence of so-called human factor. It is affected by both the customer and the employee. The company should ensure such working conditions to keep employees in good physical and mental condition and provide services responsibly. Working hours should be observed. If demand increases (there is a problem of instability of service), additional staff should be employed.

Conclusions

The interest of service companies, in the concept of social responsibility should be the consequence of the transfer of values that are important for owners and employees to the company. Social responsibility should not only be the result of business calculations, but the consequence of translating the principles, values and needs of the owners and employees into the character of the business. In service companies, it is particularly important to build relationships between the company and its stakeholders (Rizan, Warokka, Listsawati, 2014; Glimore, 2006; Zinkhan, 2002; Dembińska-Cyran, Holub-Iwan, Perenc, 2004). Due to the specificity of the service company and the features of the service, the relationships that the company builds with customers and employees are becoming increasingly important. Mentioning the business relationships (company-customer, company-employee) it can not be forgotten that attracting a customer or employing a worker creates a relationship, the interdependence that the parties should feel responsible for. The relationship is based on the principles found by the parties. The parties enter into relationships because they expect certain benefits and mutual respect for rights and needs. It is also interesting to know the interplay between these relationships. The nature of the company-employee relationship directly influences on employee-customer relationships and customer-company relationships. Hence, in the corporate social responsibility strategy, areas of good governance, employment, and consumer issues are important fields for good practices. The strategy should be designed in such a way, that within good practices, reduce the customer risk arising from the features of the service through responsible decisions regarding employment policy, customer education, and internal and external communication.

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TEACHING QUALITY IN BLENDED LEARNING MODE

ADAM STECYK

University of Szczecin, POLAND
e-mail: adam.stecyk@wzueu.pl

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ABSTRACT The strategic importance of education in the national economy, the evolution of quantitative and qualitative demands in relation to the learning outcomes, the use of e-learning tools for the collection and distribution of knowledge and innovative educational paradigms, atomization and complex way of teaching processes, determine the nature of higher education. The aim of the article is a presentation of the assessment model for blended learning tools quality evaluation in higher education. This paper is an attempt to look through the prism of educational entities at e-learning system, implied as a set of key elements, which are the primary mechanism for creating value and teaching quality. The proposed research concept allows to specify the structure of the assessment model (resource configuration and processes coordination) and can be used to analyze the framework of specific subjects, teaching staff and teaching modes. Furthermore proposes solution is strictly subordinated to the identified goals (quality definition) and the assumed effects (quality measurement).

Introduction

It is important for the leaders of any educational organization, to understand the changes in development of technology and information society, as the civilization challenges which lead to achieve a certain level of organizational goals. Development of e-learning tools has enabled the creation of educational products and services, dedicated to both broad and narrow, specialized audiences, and even creates different distribution

channels of knowledge within the group. Therefore, a modern educational organization, operating on the local or national market, but still functioning in the global information society, must pay attention to opportunities in ICT and e-learning tools development.

There are several dimensions of the educational organization, which are responsible for the effective implementation of good quality e-learning tools and achieving competitive advantage in the market. The most important of these are: a methodology of building educational programs, a methodology of teaching and evaluation (paradigms of education), the use of IC technologies in education and a flexible organizational structure within organization. It can therefore be noted that without the precise identification of e-learning system key elements in educational organization, it is impossible to determine and define the level of teaching quality (Rudawska, Kiecko, 2000).

Research model and the survey

E-learning system (e-learning tools) in educational organization is a subjective term, because its range may be different, depending on the viewpoint adopted by the observer. The adoption of specific benchmarks for system decomposition and atomization of its individual elements and the demarcation of borders between the system and environment, is also individual in nature and is burdened with a significant degree of subjectivity.

There are three groups of definitions within systematic approach: structural, functional and attributes definition, so the e-learning tools can be analyzed and defined from various points of view. The structural definition identifies key tools factors and defines its boundaries with the environment, points to relations between elements and the main relationships. Structural approach determines the components of a e-learning system and clarifies how it should be seen in relation to the environment. The functional definition (process) indicates the actions that occur within the e-learning system and shows the main impact on the teaching process. The process approach clearly emphasizes the dynamics of the system and processes occurring in it and presents a specific sequence of parallel or consecutive events. Kind of a bind connecting structural and functional perspective is the definition which shows the characteristics of e-learning tools. The attributes approach gives an answer to questions about the specific characteristics of the key quality factors and processes that create a network of mutual ties and interaction. Networks are understood as "an evolving system of mutual dependence on resources, which is the result of the systemic nature of interactions, processes, procedures and institutionalization. Measures implemented in this system relate to creating, connecting, sharing, transforming, absorbing and exploiting the formal and informal relationships." (Tijssen, 1998).

It is important for the leaders of any educational organization, to understand the changes in development of technology and information society, as the civilization challenges which lead to achieve a certain level of organizational goals. Development of e-learning tools has enabled the creation of educational products and services, dedicated to both broad and narrow, specialized audiences, and even creates different distribution channels of knowledge within the group. Therefore, a modern educational organization, operating on the local or national market, but still functioning in the global information society, must pay attention to opportunities in ICT and e-learning tools development.

Based on the presented approach to e-learning tools (three definition types) and earlier research conducted at the faculty the most important assumptions of adopted survey procedure are:

The research model is based on the combination of several methods, such as: SERVPERF (Cronin i Taylor, 1994) and five elements Likert scale (1 – the lowest, 5 – the highest); methodology of building Network Readiness Index by (World Economic Forum, 2017); methodology of higher education organization assessment in five areas model (Stecyk, 2016) and is based on systematic approach to e-learning tools.

The first step to evaluate e-learning tools is to identify the key factors that determine the level of teaching quality:

- F₁ – Content,
- F₂ – Presentation/Communication/Verification value,
- F₃ – Innovative and mobile solutions,
- F₄ – Translations (foreign language),
- F₅ – Printing possibilities,
- F₆ – Wi-Fi and ICT service quality,
- F₇ – Teaching efficiency and skill transfer,
- F₈ – Knowledge distribution,
- F₉ – Practice links,
- F₁₀ – Ethics and manners (teachers role evaluation).

The second step is to select a specified e-learning tools to be evaluated:

- T₁ – video tutorial (presentation tool),
- T₂ – text workbook (presentation tool),
- T₃ – external websites (presentation tool),
- T₄ – glossary (presentation/verification tool),
- T₅ – file downloading (presentation tool)
- T₆ – file sending (communication/verification tool),
- T₇ – discussion forum (communication tool),
- T₈ – quizzes and surveys (verification tool),
- T₉ – grouping (communication tool),
- T₁₀ – lessons (verification tool).

The third step is to conduct a research and analyze the collected data.

The research was conducted on a sample of 157 students in the academic years 2016–2017. Students evaluated the selected e-learning tools in the context of the proposed factors describing the quality and effectiveness of teaching process in computer science subject. All survey respondents were participants in classes conducted in a blended learning mode, so they had experience with e-learning and blended learning solutions. A summary of the research on all selected tools in specified dimensions is shown in the Table 1.

The collected empirical data allowed the use of statistical analysis to aggregate information and calculate the average value of the results for the specified tool and factor. The results of the study were finally grouped into three ranges:

- the tool/factor determining the satisfactory level of quality (4.0–5.0, light grey color);
- the tool/factor determining the acceptable level of quality (3.0–4.0, white color);
- the tool/factor determining the unsatisfactory level of quality (less than 3.0, dark grey color).

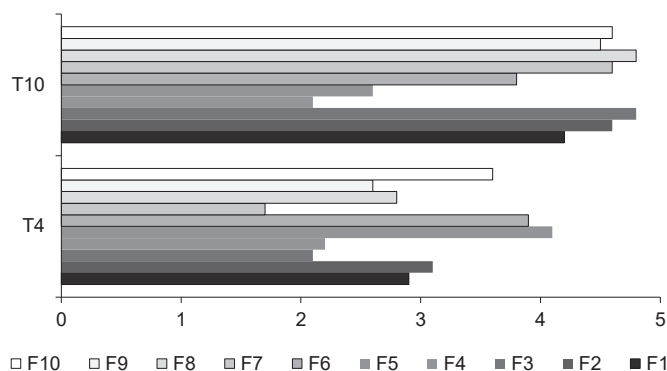
Table 1. The summary of survey results

	F2	F3	F4	F5	F6	F7	F8	F9	F10	Av.	
T1	4.7	4.8	2.2	1.7	1.3	3.6	4.6	4.8	3.8	4.5	3.6
T2	4.3	3.7	1.2	1.4	4.8	4.6	3.5	4.1	3.7	4.4	3.6
T3	3.6	3.4	2.3	4.7	4.3	3.9	2.9	3.1	3.4	3.6	3.5
T4	2.9	3.1	2.1	2.2	4.1	3.9	1.7	2.8	2.6	3.6	2.9
T5	4.6	4.4	2.5	1.7	3.7	4.8	3.8	4.3	4.6	4.5	3.9
T6	2.1	4.6	2.6	1.7	4.7	4.8	3.6	4.2	4.6	4.3	3.7
T7	3.3	4.1	2.1	2.7	3.6	4.3	3.2	3.7	3.1	3.3	3.3
T8	3.6	3.9	3.7	2.5	2.9	4.6	3.4	3.8	3.9	3.6	3.6
T9	2.2	3.8	3.2	2.4	1.3	3.7	4.2	4.5	4.3	4.8	3.4
T10	4.2	4.6	4.8	2.1	2.6	3.8	4.6	4.8	4.5	4.6	4.1
Av.	3.6	4.0	2.7	2.3	3.3	4.2	3.6	4.0	3.9	4.1	3.6

Source: own elaboration.

The detailed characteristics of the research go beyond the scope of this article, but one should be noted that the final average result 3.6 belongs to the group of factors defined on acceptable level of quality.

The highest estimated tool was the T₁₀ (lessons, a tool for different teaching paths based on tests results) – average 4.1), which means that the proposed teaching mode is highly regarded by the students. This was the only tool that belongs to satisfactory level of quality group. In the second place was the T₅ – downloading file tool (3.9) and T₆ – sending file tool (3.7) which mean that computer file sharing is an effective teaching tools, but still need to be improved. The only e-learning tool that belong to the group of the unsatisfactory level of quality is glossary (T₄ – 2.9). This is probably due to the constant need for students to complete theoretical issues on specific subjects. However, the final average results point to a positive evaluation of the selected tools by the students while pointing out the need to improve the proposed e-learning solutions. The Figure 1 shows the highest and the lowest rated tools (T₁₀ and T₄) and all the selected quality dimensions.

**Figure 1.** The highest and the lowest rated e-learning tools (T₁₀ – lesson, T₄ – glossary) and all the quality dimensions

Source: own elaboration.

Another element of the study that needs to be analyzed is the assessment and students' perception of the factors that determine the quality of e-learning tools and teaching process. The three highest estimated factors were: F_6 – Wi-Fi and ICT service quality (4.2), F_{10} – ethics and manners (4.1), F_2 – the quality of presentation, communication and verification factor (4.0) and F_8 – knowledge distribution (4.0). Such a result indicates that, in key areas, the adaptation of e-learning tools in the context of quality improvement in the education process is moving in the right direction. Nevertheless, it is important to pay attention to those factors that have been assessed at the unsatisfactory level of quality: F_3 – Innovative and mobile solutions (2.7) F_4 – Translations (foreign language 2.3). Such results clearly show that the next step in the development of the e-learning tools should be to pay attention to the mobile solutions, increasingly popular among students. The second thing is to turn to translating educational components into several foreign languages, with particular emphasis on English, German and Russian. That will allow us to open a faculty to foreign students and increase competitiveness in the education market, which will also have a positive effect on the quality of education. The Figure 2 shows the highest and the lowest rated tools and the average rating of all the other selected quality factors.

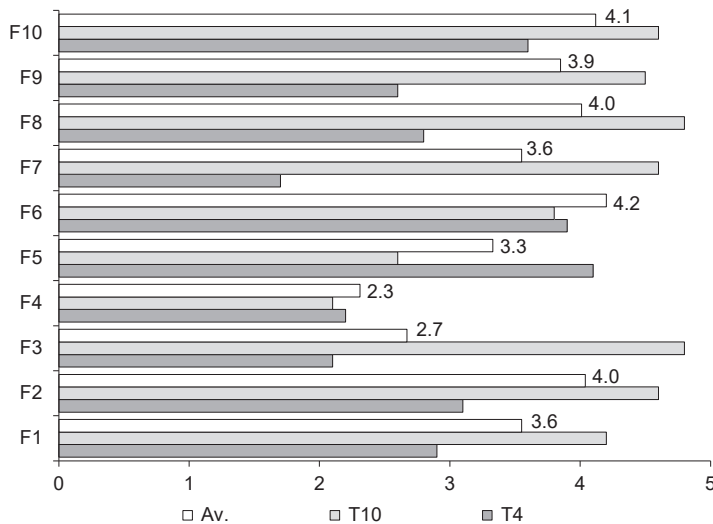


Figure 2. The highest and the lowest rated e-learning tools (T_{10} – lesson, T_4 – glossary) and the average rating of all the quality factors

Source: own elaboration.

Conclusions

The conducted survey ends a phase of analyzing the quality of selected e-learning tools at the faculty in specified quality dimensions. This raises the question about the direction of developing new solutions for higher education in the future. The answer how educational organizations will respond to future challenges depends on the speed

and flexibility in adaptation to the rapidly changing reality. Most experts agree that the processes of globalization, technology development and building the information society, will push the educational organizations to:

- continuous monitoring and implementation of proven or innovative technological solutions in the teaching process,
- diversification of teaching methodologies through the development and promotion of new paradigms in education and the use of e-learning tools,
- modeling, analysis and measurement values in the e-learning systems (IT resources, human resources, methodology, organization, economics, social resources, etc..),
- continuous increasing the volume of students, diversification of the educational offer by building new educational products and services for individual customers, globalization of educational services by reaching out to new markets and new customers,
- searching for new business models in order to the implement the social and economic objectives.

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ASSESSMENT OF COMPETITIVENESS OF THE EU EXPORT IN SERVICES

JOANNA STEFANIAK,¹ IWONA BĄK²

¹ University of Gdańsk, POLAND
e-mail: jstefaniak@ug.edu.pl

² West Pomeranian University of Technology Szczecin, POLAND
e-mail: ibak@zut.edu.pl

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ABSTRACT

The importance of trade in services is growing. However, the European Union's competitive position in the global export of services is worsening in favor of the US and Asian countries. Therefore the importance and future of the EU and its Member States position in the export of services depends on their competitiveness. Therefore the aim of the article is to assess the diversification of the competitive position of the EU Member States regarding the export of services for the 2008–2015.

Differences between European Union countries affects their competitiveness of export in services. The analysis confirmed the great diversity between them. The authors by using the multivariable analysis found out that there was no definite leader in terms of overall competitiveness of export in services throughout the period considered. However four countries could be identified as leaders as they occupied top positions in the respective years, while other four used to have the lowest rankings. Ranks of the rest of the analyzed countries differed, and these differences in some cases were quite significant.

Introduction

Traditionally services were perceived untradeable contrary to goods (Fuchs, 1968) due to their nature and limitations of traditional modes of trade (Copeland, Mattoo, 2008; Lennon, 2008). The technological development have contributed to the reduction of some limitations (Freund, Weinhold, 2002). As a result some services could be provided at a distance and international trade in services increased.

Secondly, the efforts to liberalize trade in services in international dimension (WTO/GATS, the EU Services Directive) contribute strongly to its development, but simultaneously lead to greater competition in international markets. Unfortunately, the EU's competitive position in global export of services is worsening in favor of the US and Asian countries, especially China and India. In such a situation, the future and importance of the EU and its Member States in the export of services depends on their competitiveness.

The aim of the article is to assess the diversification of the EU Member States' competitiveness regarding export of services. In order to that two questions are discussed: 1) how the main factors influencing competitiveness of export in services depict the situation in the EU; and 2) how the EU Member States are ranked due to their competitiveness of export in services and how these ranks changed over the analyzed period.

Linear ordering of countries was performed using a method based on Weber median, and typological groups were isolated using the three median method. The construction of rankings and typological groups are preceded by an analysis of competitiveness measures regarding export in services for the EU countries. The Weber median was calculated in R program `l1median` pakiet `pcaPP`. Data for 2008–2015 are obtained from the World Trade Organization (WTO) database, Eurostat, the World Bank and other available databases.

Analysis of basic measures of competitiveness regarding export in services

Generally competitiveness in international trade is a measure of a country's advantage or disadvantage in selling its products on international markets (OECD, 2005). There are many factors that affect competitiveness, among them changes in productivity, skills and technological knowledge, the nature of public policies, the capacity to raise exports, price/cost and non-price/cost factors, etc. (de la Guardia, Molero, Valadez, 2005; Athanasoglou, Bardaka, 2010; Benkovskis, Wörz, 2017). For purposes of the research, we used a set of measures that describe four areas of competitiveness (Table 1).

Table 1. Areas and measures used for the assessment of competitiveness of export of services

Competitiveness areas	Measures	(Diagnostic Attributes)
1. General	GDP per capita growth (annual %)	(X ₁)
	Annual change in productivity in services (%)	(X ₂)
	Services, value added (% of GDP)	(X ₃)
2. Price/cost	Annual Real Effective Exchange Rates	(X ₄)
	Nominal unit labor cost growth (%)	(X ₅)
3. Non-price	Summary Innovation Index	(X ₆)
	Knowledge-intensive services exports as % of total services exports	(X ₇)
	Index of Economic Freedom	(X ₈)
4. Trade	Annual change in share of the world export in services (%)	(X ₉)
	Annual growth in export (%)	(X ₁₀)
	Revealed Comparative Advantage Index (RCA)	(X ₁₁)

Source: own study based on Białowąs (2012).

The basic factors influencing the international exchange of services are economic growth and development, the importance of the services sector for economies, as well as the productivity in service sector (Francosis, Hoekman, 2010). The EU countries were recording quite volatile results regarding these measures (Table 2).

The 2007 crisis has been reflected in the results for Ireland and the United Kingdom, however in 2015 they recorded the best results in these indicators where they were the worst in 2008.

Table 2. The best and worst values of measures of competitiveness of services export in 2008 and 2015

Measure	2008		2015	
	the best	the worst	the best	the worst
GDP per capita growth (annual %)	10.28 (RO)	-6.30 (IRL)	24.67 (IRL)	-0.11 (A)
Annual change in productivity in services (%)	23.56 (CZ)	-6.97 (UK)	-5.79 (UK)	-20.00 (EL)
Services, value added (% of GDP)	84.74 (LUX)	55.66 (RO)	87.32 (LUX)	57.33 (IRL)
Annual Real Effective Exchange Rates (2005=100)	90.45 (UK)	138.03 (LV)	89.74 (IRL)	130.86 (RO)
Nominal unit labor cost growth (%)	2.00 (UK)	21.90 (RO)	-16.60 (IRL)	7.20 (EE)
Summary Innovation Index	0.697 (S)	0.214 (LV)	0.704 (S)	0.180 (RO)
Knowledge-intensive services exports as % of total services exports	93.05 (IRL)	17.8 (LT)	94.0 (IRL)	19.0 (CRO)
Index of Economic Freedom	82.5 (IRL)	54.1 (CRO)	76.8 (EE)	54.0 (EL)
Annual change in share of the world export in services (%)	28.25 (MLT)	-15.14 (UK)	6.76 (IRL)	-20.76 (EL)
Annual growth in export (%)	1.49 (MLT)	0.99 (UK)	1.01 (IRL)	0.75 (EL)
Revealed Comparative Advantage Index (RCA)	3.69 (CY)	0.57 (SVL)	3.47 (MLT)	0.43 (SVK)

Source: WTO (2017), Eurostat (2017), World Bank (2017), The Heritage Foundation (2017), European Commission (2017) and own calculations.

The basis for the assessment of price and cost competitiveness is the analysis of changes in real effective exchange rates and nominal unit labor costs (Białowas, 2012). The real appreciation of the national currency causes a deterioration in the price competitiveness of domestic services on foreign markets, leading to a decline in exports over a longer period. This occurred in 2008 to all countries, except for Ireland and UK. But over the years situation changed and in 2015 in 11 countries the price competitiveness enhanced. In all countries the level of growth of the nominal costs of unit labor diminished over time what positively affected the level of price competitiveness.

Non-price factors are very important for export competitiveness and affect the growth of export to a greater extent than price and cost factors or foreign demand (European Commission, 2010). Some of them are difficult to be measured (eg. taste). Innovations, usage of advanced technologies or economic freedom are the ones that result in an increase of the competitiveness of the services export as they allow for lower operating costs, more advanced services, the development of service enterprises and expansion into international markets (Lee, 2011, The Heritage Foundation, 2017). Leaders in innovations for 2008–2015 were Sweden, Denmark, Finland and Germany, while the least innovative countries were Romania, Bulgaria and Latvia. We found out that there were three leading countries with the export share of the knowledge-intensive services (KIS) over 80% of total export of services during the whole period: Ireland, Luxembourg and UK. Two countries, Croatia and Lithuania, were the ones with the KIS

share of less than 21%. The best conditions for doing business were in Ireland, Denmark and Estonia, and the least favorable in Greece, Slovenia and Croatia.

The last group consists of indexes measuring the trade (external) competitiveness. The economic crisis of 2007–2010 has affected the trade in services of the EU countries. In 2008 export dynamics was positive for all EU countries, while in 2009 all of them (except for Malta) reported a decline in exports of services. In the following years the situation was very variable. A difficult year for service exports turned out to be 2015, when again all the EU countries, except for Ireland, registered a negative change in share of the world services export.

The incentives for the international trade are the comparative advantage and benefits of trade for the country, enterprises and people (Lee, 2011). Differences in the availability of factors of production, skills and technological knowledge, government policies and other factors can lead to price differences and thus create incentives for trade (Copeland, Mattoo, 2008). Differentiation in these factors determine the export specialization in different types of services and is reflected in the Revealed Comparative Advantage Index (RCA). The highest rates of RCA in services in overall were reported by Luxembourg, Malta and Cyprus, while the lowest in Slovak Republic and Czech Republic.

Classification of EU countries – the method

Due to the objective of the article, the EU countries have been compared in terms of competitiveness of export in services using the taxonomic development measures. These measures are synthetic variables that replace the description of tested objects using a set of diagnostic features by a single aggregated index (Nowak, 1990). In this study, the linear assignment of the European countries and division of typological groups of objects was made using the method based on the Weber median vector – a multi-dimensional generalization of the classical notion of the median (Młodak, 2006). The Weber median vector has the property of minimizing the sum of distances for one-dimensional data, and provides a central tendency in higher dimensions. The standardization formula using the Weber median is as follow:

$$z_{ij} = \frac{z_{ij} - \theta_{0j}}{1,4826 \times \mathit{m\ddot{a}d}(X_j)},$$

where: $\theta = (\theta_{01}, \theta_{02}, \dots, \theta_{0m})$ is the Weber median, $\mathit{m\ddot{a}d}(X_j)$ is the absolute median deviation, in which the distance from the features to the Weber vector is measured, i.e.:

$$\mathit{m\ddot{a}d}(X_j) = \mathit{med}_{i=1,2,\dots,n} |x_{ij} - \theta_{0j}|, (j = 1, 2, \dots, m).$$

The aggregate measure is calculated with the formula:

$$\mu_i = 1 - \frac{d_i}{d_-}, \text{ and } d_- = \mathit{med}(d) + 2.5 \mathit{mad}(d),$$

where $d = (d_1, d_2, \dots, d_n)$ is a distance vector calculated with the formula: $d_i = \mathit{med}_{j=1,2,\dots,m} |z_{ij} - \varphi_j|$, $(i = 1, 2, \dots, n)$,

$\varphi_j = \max_{i=1,2,\dots,n} z_{ij}$ the coordinated of the development pattern vector, which constitute of the maximum values of the normalized features.

The assignment of objects with a positioning measure is the basis for a division of objects into four classes using the *three medians method*. It involves indicating a median of vector coordinates $\mu = (\mu_1, \mu_2, \dots, \mu_n)$, which is denoted $med(\mu)$, then dividing the population of objects into two groups: those, for which the measure values exceed the median or not. Next the indirect medians are defined as: $med_k(\mu) = med(\mu_{I_k})$, where $k = 1, 2$.

Therefore the following groups of objects are created:

- Group I: $\mu_1 > med_1(\mu)$,
- Group II: $med(\mu_1) < \mu_1 \leq med_1(\mu)$,
- Group III: $med_2(\mu) < \mu_1 \leq med(\mu)$,
- Group IV: $\mu_1 \leq med_2(\mu)$.

Classification of the EU countries regarding competitiveness of the services export by means of taxonomic methods requires specifying a set of diagnostic attributes characterizing the properties of these objects in a comprehensive way. Setting up the features merits and the limitations of data availability were taken into account. The initial list of diagnostic attributes selected for analysis consist of 11 measures (Table 1).

Due to poor diagnostic properties (coefficient of variation below 10%), the features X_8 and X_{10} were rejected. Other features were characterized by high variability (up to 450%) and strong asymmetry. Nine of the diagnostic features proved to be stimulants, while X_4 and X_5 – destimulants.

Results from empirical analysis

Table 3 presents taxonomic measures of the competitiveness of service exports taking into account adopted features in the form of ranking. The data show that, in general, ranks of the particular EU countries were unstable in analyzed period. In years 2008–2015, four countries might be perceived as leaders in the competitiveness of services export: Ireland, Luxembourg, Cyprus and the United Kingdom. These countries were most often ranked in the top positions. The last places were the most often occupied by Bulgaria, Czech Republic, Lithuania and Romania. There are significant differences in rankings for other countries. The biggest divergence was noted for Estonia. A similar situation was observed for Latvia, Italy and Sweden, with differences of at least twenty positions in rankings during the years in focus.

Table 3. Competitiveness of services export ranking of the European Union Member States

Country	2008	2009	2010	2011	2012	2013	2014	2015
1	2	3	4	5	6	7	8	9
Ireland	10	7	3	2	5	6	1	1
United Kingdom	1	13	5	5	1	3	3	2
Cyprus	2	1	12	10	7	1	4	3
Luxembourg	16	3	1	1	2	2	2	4
Sweden	11	8	2	6	13	8	22	5
Finland	4	17	16	13	22	11	16	6
Netherlands	6	4	17	23	23	15	5	7
Croatia	20	23	26	14	20	20	18	8
Germany	12	9	6	11	19	12	10	9
Greece	7	5	14	17	3	4	9	10
Belgium	3	2	4	18	17	16	8	11
Portugal	18	10	10	7	9	18	12	12

1	2	3	4	5	6	7	8	9
Slovenia	17	21	22	24	25	22	19	13
Hungary	14	18	15	20	27	23	15	14
Poland	21	22	13	22	15	10	20	15
Malta	13	6	7	15	24	5	6	16
Spain	19	15	19	12	10	21	14	17
Slovak Republic	22	28	27	27	21	27	28	18
Denmark	9	19	9	16	4	7	11	19
France	5	12	8	8	11	9	7	20
Czech Republic	24	26	25	28	28	28	21	21
Austria	15	14	18	9	12	14	17	22
Italy	8	20	11	25	6	26	13	23
Bulgaria	27	25	23	19	26	24	25	24
Lithuania	23	24	24	21	14	25	27	25
Latvia	26	16	21	4	18	17	24	26
Estonia	28	11	20	3	8	19	23	27
Romania	25	27	28	26	16	13	26	28

Source: own calculations.

Taking into account the first and last year of the period, only two countries (Hungary and Latvia) have not changed their positions, what does not mean that their positions were stable throughout the period considered. It is worth noting that thirteen Member States has registered improvement of their competitiveness of export in services in 2015 compared to 2008. The best improvement was made by Croatia (by 12 positions), while the greatest a decline in rankings was experienced in France and Italy (drop by 15 positions) and Denmark (drop by 10 positions).

Using the three median method, four typology groups of the EU countries were identified regarding the competitiveness of services export (Table 4). The first group comprise of countries with the best competitiveness ranks, while the fourth one – with the lowest. In 2015 compared to 2008, half of the Member States have not changed their position in groups. For the rest of the countries, there are shifts between groups, with the six countries moving to the upper groups (increase in competitiveness) and the other eight moving to the lower (worsening of the position in the ranking). It is worth noting that most countries moved within neighboring classes. Only three countries have changed their positions by two groups, with France and Italy having fallen, while Luxembourg advanced from the third to the first group.

Table 4. Typological groups of EU countries in terms of competitiveness of export in services in 2008 and 2015

Groups	2008	2015
I	United Kingdom, Cyprus, Belgium, Finland, France , Netherlands	Ireland, United Kingdom, Cyprus, Luxembourg , Sweden, Finland, Netherlands
II	Greece, Italy , Denmark, Ireland, Sweden, Germany, Malta, Hungary	Croatia, Germany, Greece, Belgium, Portugal, Slovenia, Hungary
III	Austria, Luxembourg , Bulgaria, Slovenia, Portugal, Spain, Croatia, Poland	Poland, Malta, Spain, Slovak Republic, Denmark, France , Czech Republic
IV	Slovak Republic, Lithuania, Czech Republic, Latvia, Romania, Estonia	Austria, Italy , Bulgaria, Lithuania, Latvia, Estonia, Romania

Source: own calculations.

Conclusions

The European Union is an organization of 28 countries with different systems, regulations and economic structures. These differences affect the countries' competitiveness of services export, which has been confirmed by the research: there is great diversity between countries, and there are no specific leaders. However, four countries (Ireland, Luxembourg, Cyprus and the United Kingdom) could be identified as such as they occupied top positions in the respective years of analysis. Other four (Bulgaria, Czech Republic, Lithuania and Romania) used to have the lowest rankings. Position of the rest of the EU Member States in the rankings were unstable and changes in ranks in some cases were quite significant.

The methods of analysis used for the purpose of the study allowed to trace changes in the competitiveness of export in services not only through the prism of individual indicators, but also by using them all together. Ranking results may raise some doubts and with different sets of indicators positions of countries might change. Therefore the further research will be focused on the set of indicators used and their significance for the analysis of the competitiveness of export in services. Secondly, the general results give a base to further more in-depth analysis of reasons for changes in ranks. And finally, in order to understand trade in services in a better way, services should be split up into specific types as the particularities of services types may affect their exchange properties in different ways.

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SELECTED AREAS AND METHODS OF APPLYING THE CONCEPT OF WORKING CONSUMER AT A COMPANY

ANNA SZWAJLIK

University of Szczecin, POLAND
e+mail: anna.sz wajlik@wzieu.pl

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ABSTRACT	This article presents theoretical deliberations on the concept of working consumer, and attempts to describe and translate the theoretical assumptions of the presented concept into practical aspects within the functioning of an organization. The first part of the article describes the new consumer role as a supernumerary, whereas the latter focuses on the practical ways and possibilities of using the consumer, acting as an employee, in a company.

Introduction

Changes in products and services available on the market are accompanied by transformations of customer possibilities and attitudes. Prahalad and Ramaswamy emphasize the importance of the changing role of consumers, who are transforming “from isolated into someone who interacts with other entities, including business clients” (Pralhad, Ramaswamy, 2005). The researchers point to information technology, especially universal access to

the Internet, as the main source of these changes. The development of Web 2.0, and, above all, social networking sites, creates the conditions for increased involvement of customers in various areas of the organization's activities.

In consequence, the changes in consumers have resulted in a new concept of "a working consumer", whose competences, engagement and motivation may significantly support organization's activities.

The aim of this article is to present the possibilities of practical implementation of the presented concept in selected areas of the company's activity.

Working consumer, a new role of a consumer on the market

The consumer role on the market has been significantly changing for several decades. This results from, on the one hand, dissatisfaction with the offer of products and services provided by enterprises, and on the other, the emergence of new possibilities to affect the market and shape relations with other participants and entities. According to Prahalad and Ramaswamy, the changes in consumers' awareness were mainly caused by the following phenomena (Prahalad, Ramaswamy, 2005):

1. The widespread access to the Internet has provided customers with unprecedented opportunities to obtain and exchange information. In many spheres of life such as health, finance, and education, the awareness of consumers who have gained control over their choices and, consequently, their experience in the scope of purchased products and services, has increased.
2. Company globalization together with easy access to the Internet have made it possible to overcome geographical barriers in access to knowledge and a wide range of products and services. Consumers can easily obtain information on companies, technologies, products, and prices from almost any place in the world. Internet access allows customers not only to obtain information on offers from all around the world, but also to purchase the offered products.
3. Networking of users and consumers has made it possible to create relations between participants, as well as strengthen their position with regard to enterprises. Consumers, who are connected into virtual communities thanks a global network, can easily expose empty promises and irresponsible actions taken against them.
4. Experimenting is another important characteristic of modern consumers. Access to technology and free information exchange have created the need to co-create new products and services by consumers, based on their own experience or observations of other market participants.
5. Consumer involvement in the protection of both their own and other social groups' interests has deprived companies of the possibility to autonomously operate and control promotion and distribution channels.

The above-described changes in consumer behaviour and awareness towards active involvement in social and economic life are also reflected in the activities of enterprises. Rieder and Voss have elaborated more on this topic and introduced a concept of working consumer in their research works. They claim that consumers are consistently taking over some of the tasks formerly performed by workers employed in organizations. Three key forces determine the intensity of development of the described phenomenon (Rieder, Voss, 2010):

- organizations strive to maximize process rationalization,
- a very rapid development of self-service technologies, mainly the Internet, but also automated devices that enable payment settlement or vending machines, can be observed,

- Consumers are gradually taking control over shaping their experiences with products and services (Rieder, Voss, 2010).

Consumers, who are not permanent employees, perform functions themselves and contribute to value-creation process, for which they do not expect any financial consideration. Moreover, the new role played by the consumers, who act now as employees, implies that they do not only serve themselves but also other customers, and work for the good of the company (Rieder, Voss 2010). This could be represented in online shop and auction houses customers, who advise other buyers by writing product reviews or evaluating credibility of private sellers. Customers also take “managerial functions”, e.g. they participate in improving customer service process (Jacobshagen, Semmer, 2009). Furthermore, they test innovative products as well as evaluate and comment on the solutions presented by enterprises.

Innovation and marketing as the key areas of applying the concept of working consumer

The creators of the concept of working consumer (Rieder, Voss, 2010), as well as Ritzer (1983), have defined the customer engagement in co-creating values as the convergence of consumer and employee's roles. In this context, co-creation means the customer's active participation and involvement in the value-creation process, on equal footing to other members of the organization operating in a given area.

The above-described research perspective may be called the co-creation of values by consumer, who acts as a supernumerary in an organization. The essence of this concept is the active commitment and engagement of customers who take over certain tasks and functions traditionally implemented exclusively within the organization.

The main organization's activities, which have been described in the literature on the subject as the key concepts of consumer involvement in the co-creation process, are the scope of innovations and marketing activities. Co-creation is present on several levels at a company as adjustment, improvement and development of new products (Wind, Mahajan, 1997), as well as discovering new ways to promote and improve customer service .

In regard to innovative product development, the role of consumer as a co-creator became especially important in the last decade of the 20th century. Cooper was one of the first researchers who drew attention to the need to learn about the client and listen to their voice in relation to the whole process of innovation development (Cooper, Kleinschmidt, 1986). In their works, Parhald and Ramswamy emphasized that innovations should require shaping consumer expectations, but also continuous response to their changing requirements, behaviours and experiences (Prahald, Ramaswamy, 2005). Information technologies, especially the Internet, have created a favourable environment for engaging consumer in the co-creation process of product innovations. Chesbrough underlines that the main advantage of social media is its universality and accessibility, as well as the fact that it perfectly integrates the online community (Chesbrough, 2006). Von Hippel adds that social media facilitates information sharing between users and emphasizes that the voluntary participation of consumers in communication process, as well as knowledge sharing, strengthens the process of co-creation (Von Hippel, 1986).

As T. Dryl noted, social media primarily focuses on dialog, polemic, discussion, with publishing information constituting just the beginning of communication process. Information can be freely changed, forwarded in various directions by subsequent process participants, who from recipients change into broadcasters of messages (Dryl, 2015). Furthermore, Vouri indicates in her works that social media carries out much wider scope of activities as it was traditionally perceived. She distinguishes five key functions carried out through social media: Communicating,

Collaborating, Connecting, Completing, Combining (Vuori, 2011). Communicating, connecting, and collaborating functions are particularly relevant in the process of innovation development.

Communicating is a function that encompasses publishing and sharing content in online space. The exemplary and most frequently used tools that allow implementation of communication functions include, among others: WordPress, Blogger, YouTube, Twitter, and SlideShare (Jalonene, 2014). The connecting category tools are used in the scope of social media, first and foremost, to connect users and create convenient conditions for interaction between them. Creation of connection network may be of professional (LinkedIn), entertainment (MySpace), and relational (Facebook) character if perceived in social perspective. On the other hand, collaborating refers to co-creation of content. The main channel in this category is Wikis, which by definition are responsible for support of an open model of knowledge creation. In a company, the tools attributed to Wikis channels, e.g. TWiki or GoogleDocks, may be used to manage knowledge, i.e. to co-create and store information by employees.

The involvement of consumers in the process of innovation development may take place in the context of the above-described social media tools used by the company. As indicated in the table below, a working consumer participates in the process of innovation development at all stages. The degree of consumer involvement in the discussed process and in the context of the above-described co-creation theory should be understood as the participation of consumer perceived not as an information provider but as a supernumerary involved in the operation. This kind of approach accentuates the recognition of consumer competence as a new approach to enterprise resources (Prahalad, Ramaswamy, 2005).

Another phenomenon that also largely focuses on usage of customer competences is crowdsourcing. This is a concept created by Jeff Howe (Howe, 2006), who described crowdsourcing as the outsourcing of tasks traditionally performed by specific individuals to an undefined large group of people through an open call for collaboration. The key value of crowdsourcing, which is presented in the literature as “the wisdom of the crowd”, is collective intelligence. Surowiecki proposes that “in the right circumstances, groups are extremely intelligent and often smarter than the smartest individuals in them.” (Brabham, 2008). Joint creativity of crowd participants is qualitatively different from individual consumer creativity (Kozinets, Hemetsberger, 2008). Situations that involve collective creativity of users are triggered by related activities: help in searching, joint improvement, and mutual reinforcement (Kozinets, Hemetsberger, 2008). This type of phenomenon is significant for development of product and service innovations. The use of crowdsourcing in the process of innovation development, especially at the stage of acquiring ideas for new products, has become quite common and many companies constantly use this way of acquiring creative resources.

As it was mentioned earlier, crowdsourcing constitutes not only a way to acquire resources located outside a company, but it is, above all, an opportunity to acquire competent and motivated supernumeraries. “Crowd wisdom” together with other resources can be used by means of specialized crowdsourcing platforms, which act as independent entities, or enterprises which create dedicated technological solutions for their own use. Crowdsourcing as a method of engaging competent consumers as employees is presented in Table 1.

As can be seen in the above table, the usage of social media in the process of product innovation development gains a new dimension. Social media is becoming a communication channel and a platform for cooperation thanks to which the consumer gains specific tools that allow them to communicate, joint communities, and share information or ideas at a convenient time and place. Therefore, the consumer may play the role of an employee, who despite not permanently operating in the organization’s structures, constitutes significant support for it in the

discussed innovation development process. The consumer becomes a creator, tester, initiator that operates within the organization in contrast to the traditional approach where the customer was only a source of information.

Table 1. Practical use of the concept of working consumer in the area of innovation

Stages of development of product innovation	Activities performed by working consumers	Description of an optimal group of working consumers	Examples of selected methods/tools
The stage of looking for ideas	Creating ideas and their verification	initially, all people interested (idea propagators), enthusiasts; at the stage of concept development: specialists, lead users	crowdsourcing platforms/InnoCentive; dedicated www solutions/Dell Idea Storm; social networking sites; thematic groups/Facebook
The stage of product development	Rating, testing and development of the prototype	lead users; specialists; engaged users	dedicated www solutions/laboratories; social networking sites; thematic groups/forums and discussion groups
The stage of entering the market	Creating and implementing marketing strategy	target group of clients	social networking sites, websites/Facebook, Tweeter, YouTube

Source: own work.

Another previously described area in a company where consumer engagement is of significantly importance, is marketing – especially activities related to promotion, creation of brand image, or support of the sales process. According to Kotler, the new possibilities gained by customers thanks to the digital revolution determine the necessity of thorough changes in the area of marketing.

The new customer possibilities mentioned by Kotler include, among others (Kotler, 2005):

- significant increase in consumers' strength,
- easier comparison of competitive offers (including the possibility of obtaining and comparing information on products without leaving your home),
- a greater variety of products and services,
- a large amount of information available,
- easier submission, procurement and negotiation of orders.

Customers are becoming more and more involved in an active and open dialogue with product and service suppliers. Moreover, customers who have never before constituted such great push force more and more often control this dialogue, which leads to fundamental changes in the market dynamics. The development of the Internet has provided clients with communication capabilities that they had never seen before, which, in turn, led to creation of many virtual communities. Chats, discussion forums, social networking sites, and various types of websites support the inherent creation of a community of customers who have not met in person.

When applying the above-mentioned characteristics of social media created by Vouri, it should be noted that in the case of marketing activities, it is appropriate to use the entire spectrum of functions such as Communicating, Collaborating, Connecting, Completing, Combining (Vouri, 2011). The additional two functions, i.e., Completing and Combining, are used to supplement content by adding a description or filtering information, marking and indicating connections between contents (Completing), as well as and combining existing tools in one place (Combining).

The above-described features of social media, as well as the channels and tools assigned to them, make it possible for the consumer to engage in marketing activities carried out in the company. A working consumer can simultaneously co-create content that is later used to present products or promote a brand, but can also create communities and share obtained information, thus support product sale or create the expected image of a company. However, it should be noted that the actions performed by the consumer do not depend on their availability or location, but rather on the degree of commitment and motivation to act. Therefore, it is of great importance for a company to identify and select the right consumer who can act as a specialist, enthusiast, lead user, or representative of the target group of buyers. The table below presents the ways consumer work could be included in various areas of marketing activities, including specific competences, social media, and crowdsourcing tools.

Table 2. Practical use of the working consumer concept in the area of selected marketing activities

Type of marketing activities	Activities performed by working consumers	Description of an optimal group of working consumers	Examples of selected methods/tools
Shaping the image of the company, the product, the brand	Brand and product presentation	Enthusiasts Specialists Lead Users Involved users	Websites/YouTube, Blogs/Blogger, websites/Instagram
Support for the sale of products and services	Informing about the functionality and benefits associated with the purchase of a product/service	Enthusiasts Specialists Lead Users Involved users	Websites/YouTube, microblogs/ Twitter, Blogs/Blogger /Facebook Pinterest
Creating content	Co-creation of product descriptions, advertising scripts, presentations. Search for unique content	Specialists Lead Users	wikis/GoogleDocks crowdsourcing platforms/Eyeka, Tongal

Source: own work.

As indicated by the examples, the concept of working consumer acting as a supernumerary has become possible to apply in a company. Access to modern technologies and tools has facilitated not only communication with the consumer, but, above all, has made it possible to involve clients in the implementation of duties assigned to full-time employees. However, as practice shows, companies on the one hand express demand for using customer competences, and on the other, do not possess knowledge or resources that allow them to make use of customer potential and engagement. A working consumer is still more of a theoretical concept than a business activity implemented in practice.

Conclusions

Decreasing customer satisfaction, changes in character and structure of products and services (including development of new product concepts) as well as in expectations, attitudes and customer behaviour are simultaneously the source of possibilities and threats for companies operating on the market. Many organizations perceive the growing activity and involvement of clients as a problem that is increasingly difficult to deal with; whereas others look at it as an opportunity to use clients as a source of competences that may prove useful for the organization.

The concept of working consumer acting as a supernumerary, apart from being beneficial for the organizations, also brings many challenges. It is particularly important to understand that intangible assets, including consumer competences (knowledge, skills, and experience) will be a deciding factor in growth potential for the company and its competitiveness (Parhal, Ramaswamy, 2000). The organization implementing the concept of working consumer should apply the principles of openness and flexibility in action, as well as create conditions for co-creation of values together with the consumer.

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THE INFLUENCE OF SOCIAL DETERMINANTS ON RETIREMENT SAVINGS IN POLAND

DAMIAN WALCZAK,¹ SYLWIA PIEŃKOWSKA-KAMIENIECKA,² ANNA BERA³

¹ Nicolaus Copernicus University in Torun, POLAND
e-mail: dwalczak@umk.pl

² University of Warmia and Mazury in Olsztyn, POLAND
e-mail: sylwia.pienkowska@uwm.edu.pl

³ University of Szczecin, POLAND
e-mail: anna.bera@wzieu.pl

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ABSTRACT

Both individuals and entire households save for various reasons. Many factors determine saving for a particular purpose. The article presents social determinants which have an effect on retirement savings. The authors draw on the results of the Social Diagnosis of 2015 – a panel-based study conducted annually by the Council for Social Monitoring since the year 2000. In 2015, the study covered 11,740 households within the whole area of Poland. The study subjects were individuals acting as heads of their households and making key financial decisions concerning the members.

A logistic regression model was used to determine the social and demographic characteristics of household heads who make decisions concerning retirement savings. The results of logistic regression have shown that gender, years of education, religiosity, marital status, whole life satisfaction as well as political and economic views have a significant impact on the decision-making process of saving for old age.

Introduction

Savings are the part of a household's income which has not been spent on consumption (Białowąs, Olejnik, 2015). They play an important role in the functioning of a household and its members. There are numerous reasons why people decide to save. Savings may be of general nature, i.e. have no particular purpose, or they may be accumulated for a particular purpose. In the latter case, one of the main reasons for saving money is to ensure

better living standards during retirement, considering that pension benefits paid under the mandatory pension programs have been decreasing substantially (Chybalski, 2016; Jedynak, 2016). Most often, literature references emphasize economic factors which affect saving. According to Cynamon and Fazzari (2017), they include income, owned wealth, level of consumption and household debt. Nonetheless, also of importance, and often decisive, are non-economic factors (van Erp, Vermeer, Vuuren, 2013). While economic and financial factors are significant, they are not sufficient determinants of retirement behavior (van Erp et al., 2013). One of the non-economic aspects, according to Sablosky (2014) and Su et al. (2011), is religiosity which impacts significantly on financial decisions. Gender is also of key importance in the decision-making regarding savings. Women are generally less likely to save extra for retirement than men (Fernández-López, 2015). Differences in saving behavior may also result from the so-called social learning process. Men and women, by observing behaviors of the same socialization agents (e.g. parents, peers) display different attitudes to financial issues (Sereetrakul, Wongveeravuti, Likitapiwad, 2013; Walczak, Pieńkowska-Kamieniecka, 2018). Another key factor affecting saving is also education level and knowledge (Chang, Tang, Liu, 2016; Ellen, Wiener, Fitzgerald, 2012; Lusardi, Mitchell, 2011).

Kapounek, Korab and Deltuvaite (2015) show that financial decisions of households, including those concerning old age savings, are largely influenced by marital status. Consistently married individuals with no record of marital break-up have a significantly higher level of wealth and savings than those divorced or who were not continuously married (Wilmoth, Koso, 2002). In addition, political views are one of social determinants, which have an effect on financial decisions. Individuals with liberal views opt for reducing the role of the State and therefore leaving the majority of decisions, including financial, to the citizens. As a result, in line with their views, they save for old age individually. On the other hand, persons with left-wing views claim that the State should guarantee a certain minimum standard of living to its citizens and, consequently, they save less often (Kollmorgen, 2013). Moreover, people satisfied with their lives make totally different decisions than those that are unsatisfied. Whole life satisfaction is a sum of biological, social, personality and economic conditions and has a multi-faceted dimension. However, current life satisfaction is usually connected with the desire to maintain it on a relatively high standard in the future. This, in turn, is reflected in owning more savings, including savings for old age, which facilitate retention of the status quo standard of living and health in the future (Parr, 2010). As a result, as indicated, saving decisions are determined mainly by the individual traits of each person.

The purpose of this paper is to demonstrate social determinants of retirement savings. It investigates the hypothesis which states that the level of a household's retirement savings is largely affected by the social determinants of its head.

Methodology

Participants

The research presented in the article comes from a representative nationwide research the Social Diagnosis conducted in Poland in 2015. In 2015 this study was conducted in 11,740 households within the whole area of Poland (Czapiński, Panek, 2015). The study subject in each household was its head who made key financial decisions concerning all its members.

Measure

Dependent variable (owning of old-age savings by household) in the model had a dichotomous character, i.e. zero-one. This variable took on the following form:

$$Y = \begin{cases} 1, & \text{in case that the event happened} \\ 0, & \text{otherwise} \end{cases}$$

The logit model for dichotomous variable Y is determined by the following dependence (Hosmer, Lemeshow, Sturdivant, 2013):

$$E(Y|x) = \pi(x) = \frac{e^{\beta_0 + \beta_1 x}}{1 + e^{\beta_0 + \beta_1 x}}$$

The independent variables used in the Model are presented in Table 1.

Table 1. Descriptive statistics for the independent variables

Variable	Variable description	Nature of the variables
Church	On average, how often in a month do you take part in a church service or other religious meetings?	Number
Gender	Gender	0 = Women 1 = Men
Education	Years of education	Years
Marriage	Do you think marriage is the most important condition of a happy life?	0 = No 1 = Yes
Health	Do you think health is the most important condition of a happy life?	0 = No 1 = Yes
Friends	How many people do you consider as friends?	Number
Marital status	Marital status	1 = Single 2 = Married 3 = Widow/widower 4 = Divorced/separated
		1 = Great 2 = Successful 3 = Pretty good 4 = Neither good nor bad 5 = Not successful 6 = Unhappy 7 = Terrible
Whole life	How do you evaluate your whole life, could you claim what it was like?	1 = Definitely yes 2 = Yes 3 = Rather yes 4 = Neither yes nor not 5 = Rather not 6 = No/not 7 = Definitely not
Inequality	We should aim at balancing the incomes of all people	0 = Pleasures 1 = The feeling of purpose

Source: own study based on Social diagnosis (2015).

Data Analysis

The analyses of the presented source data on saving, with the use of the IBM SPSS Statistics 24 software, were conducted with the use of the logistic regression model (Hosmer et al., 2013). It allowed the evaluation of the influence of particular traits of the head of the household, presented in Table 1, on the willingness to save for old age by this household.

Results

As men are more concerned than women about financial issues, they save for old age definitely more frequently (Taft, Hosein, Mehrizi, Roshan, 2013). Consequently, male-headed households are also more willing to save for old age.

Religious people who participate in a church service are more likely to save for old age. Increased participation in a church service of a household head once a month increases the odds of owning savings for old age by 2.2%.

According to other studies (Lusardi, 2016), and non-scientific assumptions, education boosts the willingness to save for old age. Higher education means greater knowledge, including financial competence, regarding the need to save for old age and in effect, as indicated by the research results, an actual decision to save. Every additional year of education that the head of a household has increases viable odds of owning such savings by 2.0%.

Moreover, the number of friends a household head has, has a positive impact on owning savings. Sociable individuals who make friends easily have a greater awareness of the need to save for old age. This results from the so-called social norms. The moment of retirement is a one-time event so it is not possible to rely on one's experience in this matter. Consequently, people observe behaviors of others, family members, friends, how they prepare financially for old age and, above all, how they manage after going into retirement (van Erp et al., 2013). The decision making process considered in the present study is also affected by marital status. Single people take into consideration old age to a small extent whereas married people are more aware of the need to save for old age. Nonetheless, people who are life-experienced and often left alone, i.e. divorced or widowed, save for old age most frequently.

Evidently married people, like divorced and widowed people are more financially literate, which in turn has an effect on financial decisions, including saving for old age (Taft et al., 2013). Moreover Gonzalez and Özcan (2013) claim that the increase in the probability of marital breakup increases the propensity to save by married individuals. Odds of owning savings in households headed by a married person are 8.8% higher than in those which are single-headed. Analogically, in households headed by a divorced or separated person these odds are higher by 51.9%, and in widow-headed by as much as 84.3% when compared to single-headed households.

Individuals who evaluate their life better as well as those who perceive marriage or health as important determinants of a happy life tend to save for old age more often. This can be justified by their desire to own financial resources which will be necessary to lead a happy life or maintain good health which is important to them. On the other hand, it needs to be stressed that people with excellent health need greater financial resources for old age as they have a projected longer time span during which they will be using savings collected during professional activity (Harlow, Brown, 2016). Health status and expectations towards its future condition are therefore significant societal determinants of savings.

As presented in the research, evaluation of current life also has an effect on owned savings. Odds of savings for old age by individuals who perceive their current life as not successful are 38.6% lower than among those who perceive their current life as great.

What is more, people who state that incomes of all people should not be balanced save more for retirement. They also claim that incomes should be varied and relate to liberal views which also signal that people should accumulate resources for retirement by themselves. Alternatively, households headed by those who opt for eliminating income inequality save evidently less. Such a view constitutes realization of the socialist ideals and is expressed in reference to the welfare state, i.e. a concept where the State should guarantee, inter alia, suitable pensions (Esping-Andersen, 2013). As a result, such individuals tend to save for old age more often.

Table 2. Estimates of logistic regression model after dropping out insignificant variables for “old-age savings”

Variable	B	S.E.	Wald	df	Sig.	Exp (B)	95% C.I. for Exp(B)	
							Lower	Upper
Church	0.022	0.009	6.004	1	0.014	1.022	1.004	1.040
Gender	0.191	0.076	6.341	1	0.012	1.211	1.043	1.405
Education	0.019	0.009	4.618	1	0.032	1.020	1.002	1.038
Marriage	0.268	0.065	16.771	1	0.000	1.307	1.150	1.486
Health	0.129	0.063	4.217	1	0.040	1.138	1.006	1.287
Friends	0.015	0.004	12.867	1	0.000	1.015	1.007	1.024
Marital status								
Single			37.180	3	0.000			
Married	0.084	0.111	0.581	1	0.446	1.088	0.876	1.352
Widow/widower	0.611	0.124	24.285	1	0.000	1.843	1.445	2.350
Divorced /separated	0.418	0.146	8.234	1	0.004	1.519	1.142	2.020
Whole life								
Great			14.717	6	0.023			
Successful	-0.103	0.146	0.495	1	0.482	0.902	0.678	1.201
Pretty good	-0.286	0.150	3.671	1	0.055	0.751	0.560	1.007
Neither good not bad	-0.315	0.165	3.662	1	0.056	0.730	0.528	1.008
Not successful	-0.488	0.229	4.550	1	0.033	0.614	0.392	0.961
Unhappy	-0.743	0.462	2.585	1	0.108	0.476	0.192	1.177
Terrible	-0.144	0.956	0.023	1	0.880	0.866	0.133	5.633
Inequality								
Definitely yes			29.186	6	0.000			
Yes	0.008	0.097	0.007	1	0.935	1.008	0.834	1.218
Rather yes	0.195	0.099	3.891	1	0.049	1.216	1.001	1.476
Neither yes nor not	0.266	0.104	6.493	1	0.011	1.304	1.063	1.600
Rather not	0.286	0.118	5.904	1	0.015	1.331	1.057	1.677
No/not	0.453	0.114	15.672	1	0.000	1.573	1.257	1.968
Definitely not	0.488	0.192	6.428	1	0.011	1.629	1.117	2.375
Const.	-1.698	0.243	48.999	1	0.000	0.183		

N = 5,957; Log likelihood = 7,317.726; Nagelkerke's R-squared = 0.031; Cox-Snell's R-squared = 0.022; Chi-square (21) = 133.755 (0.000); HL test = 7.819 (0.451).

Source: own study based on Social diagnosis (2015).

Discussion

Analysis of the conducted research results based on a representative Social Diagnosis 2015 study has indicated that social determinants affect saving for old age. Households headed by religious people who engage in religious practices tend to save more for old age. A similar positive impact on saving was observed for education and the number of friends a household head has. Sociable people initiate interpersonal contacts more often and they are undoubtedly open to new knowledge so they have a greater awareness of the need to save for old age.

The level of accumulated savings is also, if not mainly, affected by political-economic views. Households headed by those who support income inequality in society save for old age much more than households who opt for elimination of this inequality. People who see the role of the State in eliminating incomes of its citizens act in line with their views, i.e. they do not save individually for old age as they depend on benefits guaranteed by the State. Such a position is expressed mainly by people with a lower level of education. In fact, it appears that the level of economic knowledge, financial competence and willingness to save increase with the level of education.

Households headed by a single person save for old age much less. Often they do not have many duties and seize the day. As a consequence, saving for old age, or in fact even any saving, is postponed. Bearing that in mind, we may also observe that people who perceive their life as great and health as crucial in life save for old age in order to maintain both these aspects on a satisfactory level on retirement.

As a result, one cannot find any grounds for rejecting the research hypothesis which claims that social determinants have an impact on old-age saving decisions.

Conclusion

Households save money for various reasons. According to the theory of permanent income (Friedman, 1957), one of the key motives for saving is to accumulate resources in order to compensate for a possible relative decrease of the income after retirement (Niculescu-Aron, Mihăescu, 2012). Saving behavior may be influenced in different ways by various factors. It results from the research presented in this paper that social determinants of households' heads, such as gender, years of education, religiosity, marital status, whole life satisfaction, as well as political and economic views, have a significant impact on the decision-making process of saving for old age in Poland's households.

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COMMERCIALISATION OF PUBLIC HOSPITALS LOCATED IN THE SILESIA REGION – RESULTS OF OWN RESEARCH STUDIES

KAROLINA WIELICKA-GAŃCZARCZYK

Silesian University of Technology Faculty of Organization and Management, Zabrze, POLAND
e-mail: Karolina.Wielicka-Ganczarczyk@polsl.pl

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ABSTRACT

The article presents actions undertaken by public hospitals located in the Silesian Region during commercialisation, which is one element of hospital restructuring. The paper is divided into two parts. In the first one explained the differences between hospital commercialisation and privatisation. The second one presents selected results, which were part of more extensive research about the effectiveness of restructuring process in hospitals located in the Silesian Region. The above-quoted research studies were aimed to assess the effectiveness and its unsatisfactory reasons of restructuring processes taking place in hospitals. The research study was preceded by pilotage and conducted in three stages, for which was used triangulation of methods. At the first stage, the process of restructuring as perceived from public hospitals was analysed, at the second stage – their commercialization, the last one concentrated on restructuring process in commercialized hospitals. The results provided in the paper concerns the second stage and based on surveys conducted among managing staff of commercialised hospitals who participated in the and held managerial positions at the time. The results show the reasoning standing behind decisions made on the commercialisation of hospitals, planned actions in relation to project management and results of such actions after their implementation i.e. effectiveness of the whole process as well as all such actions undertaken in individual fields. The research was conducted in 2013 to 2015, on necessary sample size of 11 entities at 0.9 level of confidence and 0.15 for statistical error. The paper aim is to demonstrate selected results about planning and implementation of actions undertaken by public hospitals located in the Silesian Region under their commercialisation.

Introduction

Undoubtedly, the healthcare sector (in which, in particular, care treatment provided by hospitals makes the foundation of ensuring public health) is one of the basic elements in the economy. The issue of insufficient funds needed for the proper operation of hospitals has been tackled by reforms implemented for several decades and forcing their stepped restructuring.

Numerous scholarly publications combine a notion of 'commercialisation' with a concept of 'process'. It is customary to write and speak about a "restructuring process" in reference to some interrelated operations rather than their continuity, as in the case of continuous improvement in a company where such a process is uninterrupted. A scope of implemented changes (which, in principle, stand for a fundamental change in a company) makes the common denominator of some definitions. As for hospitals, this change undoubtedly refers to commercialisation, which itself is a legal-administrative process only but still can be also part of broader operations undertaken under restructurisation. Taking into consideration that an in-depth reconstruction is not a natural state for any organisation, it can be assumed that restructurisation stands for a transitional and exceptional operation with its starting and ending points. Bearing in mind the above, it should be stated that restructurisation has some characteristics of a project and thus actions undertaken within it should be planned, implemented and monitored in accordance with the standards adopted for project management. The research studies presented in this paper on planning operations under hospital commercialisation in the Silesian Region were analysed in project-management terms.

Commercialisation and privatisation

Propagation of misleading information by the media for years (commercialisation mistaken for privatisation) led to an increase in resistance of the Polish society towards the transformation of hospitals. The Polish society identifies commercialisation with privatisation (Wiercińska, 2015, p. 458), and, consequently, with elimination of free healthcare treatment and its replacement with commercial one.

So, in case of hospitals, commercialisation, in other words, stands for a transformation of a business entity which operates as an independent public health-care institution (pol. SPZOZ) into a capital company (Horosz, 2012, p. 22). With its scope it only refers to changes made to the organisational and legal form of an individual hospital, not to its ownership. It means that a business entity which establishes a public hospital once it is transformed becomes the key shareholder of a newly established company, thus its owner remains the same and the procedure itself can be called a cosmetic change. The adopted Act on healthcare treatment (the Act, 2011) permitted its establishing entity to select one of the following two options – liquidation or commercialisation of a given hospital in case its debts cannot be repaid. Taking into consideration that the first option could not be applied in practice, commercialisation was the primary solution to the issue of hospital over-indebtedness; all the more the Act itself applied mechanisms which favoured this solution (Marcinkowska, 2016, p. 426). The simplicity of this procedure (to implement commercialisation) was one of them. The prior Act on healthcare institutions (the Act, 1991) allowed to transform a public hospital into a commercial law company upon having undertaken the following actions: adoption of a resolution on the liquidation of a given hospital, setting-up a non-public health-care institution (pol. NZOZ), adoption of a resolution to manage assets of a liquidated hospital and appointing its liquidator, then liquidation, delegation of public service to provide health-care treatment to this non-public health-care institution (pol. NZOZ) and assets to the founding body and finally – adoption of a resolution on the completion of liquidation of a given hospital and dismissal of its social council. The Act on healthcare treatment significantly simplified the whole process by bringing it into a deed of transformation, which additionally contained a deed of incorporation of a given company itself. Upon its preparation, such a newly created entity was required to be entered into the register of entrepreneurs, which resulted in the deletion of public hospital from the National Court Register and completion of all transformation (Rabiega-Przyłęcka, 2013, p. 20). Taking into account the procedure and application of mechanisms which pressed for immediate debt relief, it can be stated that – in order to accelerate the process – the legislator

simplified it to a large extent. Nevertheless, the ownership of this newly established company did not change – its establishing entity became its principal owner.

The concept of privatisation can be applied twofold. The first approach incorporates a set of actions leading to a change in the structure of ownership of business entities in an individual country in favour of the private sector, while – at the same time – its reduced involvement in the economy. The second approach aims to transform what is owned by the state into non-state property (Stępnia-Kucharska, 2015, pp. 136–137), which could be done through sale or appropriation (Kocowski, 2012, pp. 38, 45). The concept of privatisation could be easily referred to public hospitals if there were no legal regulations limiting the freedom of direct privatisation of hospitals. In line with the Act on healthcare treatment (the Act, 2011), hospitals, apart from clinics, could be privatised only upon their commercialisation (Karkowski, 2014, p. 150). It means that it was the key shareholder (i.e. a business entity establishing such a transformed public hospital) which/who decided on its further transformation. Currently (since 2016) the current legislation has not allowed to privatise hospitals (the Act, 2016). Owners of commercialised hospitals are not allowed to sell hospital stocks or shares to private-sector entities if they lose their majority stake this way. Moreover, the Act lets to establish hospitals in the form of an independent public health-care institution (pol. SPZOZ) and settles responsibility for the financial standing (especially negative result) of a given hospital entrusting its settlement first to this hospital and then – in case of failure to cover losses – to its establishing entity.

Supporters for commercialisation believe that this is a good solution aimed to reduce operating costs incurred by hospitals and increase the quality of services they provide. Treatment of health care services and other services in the same manner (and a hospital itself like a free-market operator) is aimed to improve the competitiveness of healthcare providers, which, in turn, will lead to increased availability of their services and elimination of waste (Brzozowska-Woś, 2013, p. 35). Taking into account some reports on the commercialisation of hospitals published by the Supreme Chamber of Control (NIK, 2014, p. 8) and the Magellan Group (Magellan, 2014, p. 5) or the author's research results, it must be stated that this opinion is partially true only.

Specification on participation criteria and applied research methods

The results of the author's research studies included in this paper were based questionnaires taken from 12 hospitals which met the following participation criteria. Such hospitals:

- a) provided medical treatment in the form of stationary and all-day hospital services;
- b) held more than one multi-specialisation division in their organisational structure;
- c) were transformed from a hospital functioning as an independent public health-care institution (pol. SPZOZ) for which the Governor of the Silesian Region or any other local government unit located in the Silesian Region was their establishing entity;
- d) held no scientific and didactic facilities for any medical school;
- e) their medical activities were not leased (partially or wholly) to any another other business entity;
- f) held no ministerial entities in the capital structure;
- g) were not leased to any private business units;
- h) were not partially/fully privatised;
- i) held no divisions belonging to any external entities in their structure.

The questionnaire consisted of 42 questions, of which 4 covered respondents' particulars, 20 referred to the planning of commercialisation, 12 – to its implementation and 6 – to its results.

Selected research results for the Silesian region

In the survey took part 17 persons from 12 transformed hospitals. In the course of commercialisation they held managerial posts. Prior to the transformation process each of the surveyed entities held more than 8 multi-specialisation divisions. The smallest hospital participating in the survey consisted of 4 divisions while the largest one – 13. More than one in three (six respondents) held one- or four-person management. As for three of the respondents their management was made up of two people and as for the rest of the persons participating in the study – three people in the board.

Reasons for the commercialisation of public hospitals

According to most of the respondents (sixteen people) the major reason why hospitals were commercialised lies in that, it was necessary to re-condition them vulnerability (the need for repair). More than 1/3 of the respondents considered that their transformation was due to that they wanted to be independent from their establishing entity and adjust to changes taking place in the environment. Only five of the respondents regarded that hospitals were commercialised because they wished to get developed. The reasons specified above were a prerequisite to define the key goal of commercialisation. Two main goals for commercialization process were identified by six of the respondents (35.3%), five persons defined (29.4%) – three, four respondents – one and two specified four main objectives for the commercialization process. For most of the respondents, these goals were shown in a Figure 1 below.

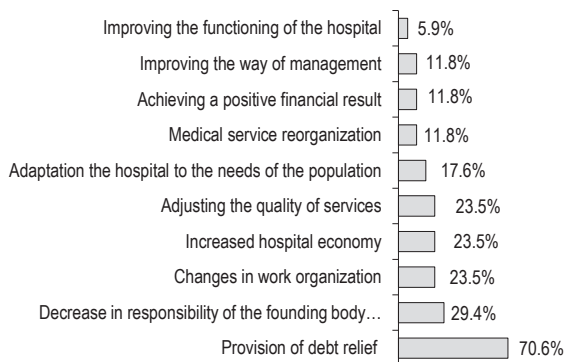


Figure 1. The main purpose of the commercialization process

Source: own elaboration.

The hospitals with 8 to 13 divisions as the main purpose of commercialization the most often adopted: increased hospital economy, improving the way of management and medical service reorganization. In turn, the hospitals with 4 to 7 divisions defined: changes in work organization, adaptation the hospital to the needs of populations and improving the functioning. For five respondents from hospitals with 8 to 13 divisions and seven from 4 to 7 health care divisions point at lack of debt as their main aim.

Actions undertaken by hospitals while planning commercialisation

According to the nine respondents (52.9%), no project team was set up to run restructuring operations covering commercialisation of a given hospital. The remaining respondents set up a project team with its members being appointed by management of their hospital or founding body (now the establishing entity) (four persons in both cases). The question on persons responsible for planning restructuring activities was answered by all the respondents, even the ones who in the previous question declared that no project team was appointed. In all the hospitals, their director (head) was a project team member. In three out of four hospitals, managers of administrative units took part in task planning, while in over 2/3 – heads of wards did. According to the respondents the following persons were accountable for planning: administrative staff – for half of the respondents, all hospital management – for nearly every fifth of them and non-managerial staff or technical staff – for one of respondents. An individual project team consisted of min. 1 person and max. 6 persons. The project team didn't participate in extra trainings/courses on the planning of restructuring activities in the opinion of seven respondents from nine, who answered this question. According to the remaining, project team members underwent trainings on the commercialization of hospitals and operation of commercial companies.

No pre-implementation analysis (in order to specify needs) was not performed in their hospitals by opinion of three respondents. Only one person admitted that such a pre-implementation analysis was prepared jointly with the founding body, and two persons – with a consulting company. As for the remaining, this pre-implementation analysis was prepared with no consultation with the other party of the commercialisation process. In opinion of seven responders pre-analysis was conducted only by founding body (public entity), according to four person only by hospital.

Hospitals didn't organise any meetings for staff involved in such hospital operations in opinion of ten respondents. According to the remaining four persons meetings were organised in half of their units by the founding body or consulting company. At the same time every fourth hospital organised meetings with staff on its own.

As stated by eight of the respondents, action-plans were prepared only by founding body. According to four of them, it was only the hospital which was accountable for their preparation; as declared two persons – action-plans developed to implement transformation actions were defined jointly with the consulting company. The rest responders stated that a consulting company accounted for action-plans. Six responders believed that no one defined resources needed to accomplish set tasks. Out of the remaining 65%, according to the majority of the respondents (81.8% – nine persons), their hospital accounted for resources needed to implement set tasks and two of the respondents declared that it was the founding body or consulting company.

In opinion of five respondents none of the entities (their hospital, founding body, consulting company or any other unit) didn't plan any budget for transformation. The remaining respondents (71%) believed that the founding body was responsible for the budget (eight persons) while five of the respondents indicated it was their hospital itself. For one of the respondents, the budget was defined jointly with the establishing entity and according to two persons – by the hospital and a consulting company. Most of the respondents (twelve persons) admitted that no risk analysis was developed under planning transformation operations. Out of the remaining, it was the hospital which was responsible for such analysis (according to three persons) and in other cases it was the founding body.

None of the hospitals involved in the research studies developed any analysis on stakeholders as required for commercialisation. However, in the previous question on the identification of stakeholders, two of the respondents said that it was done. The respondents considered Health Department and Ownership Supervision Department at the Council Authorities to be the stakeholders.

In case of all the respondents, planned actions get focused on the structure of debt where the primary task was to take over hospital debt by the establishing entity (by every responders). According to 94.1% of the respondents, planned actions also concerned the area of ownership (transformation). Operations in the structure of capital were planned by fourteen of the respondents, most often they (nine persons) pointed out to raising initial funds by their hospitals to appropriate levels. Changes in the field of services planned only five of respondents, most of which focused on expanding services which they provided and increasing their. In the field of ownership the key task was to acquire own assets by their hospitals (in the form of e.g. medical equipment or own buildings) – according to twelve respondents. In the area of work organisation, in which ten of the respondents planned activities, the most important issue was to reduce operating costs of their hospital (its divisions). In the area of staff changes were focused to adjust employment as required by their future company. Other areas such as sales, technical unit and management were marginal

In the course of the planning of restructuring operations, according to eight of the respondents there were problems with trade unions and in over 1/3 cases – with the establishing entity. Nearly 1/4 of the respondents declared that problems were due to unsatisfactory management of their hospitals, contracting issues and no financial resources to plan appropriate actions.

Effectiveness of commercialisation and actions undertaken within it

The effectiveness of commercialisation expressed in the form of the average degree of achievement of the primary target was calculated at a level of 82.4% for the first goal (reduction of debts), 55.8% for the second goal (reduction of liability for hospital funds incurred by the founding body) and 55% for the third goal (changes in work organisation, increase in economic and effective use of resources, adjustments in the quality of provided services to meet market requirements). The average success rate of planned actions in the area of debt structure was 100% – all the participating hospitals were converted into commercial companies. In the field of ownership the average success rate of implemented changes was assessed by the respondents at a level of 91.3%. Failure to achieve 100% was due to non-recovery of hospital own property, acquisition of the majority stake by another entity than the establishing entity and no recapitalisation of newly established companies. In the structure of capital the average success rate was at 88.6% and came from insufficient initial capital held by companies. In the area of services, the average success rate was at 56.7%, which was due to failure to expand services (add planned ones). In the area of property, the respondents rated it at 64.2%, which was mainly due to failure to hold own property in spite of transformation operations. In the area of organisation and employment, the average success rate was 56% and 83.5%, respectively. If it was possible to re-run restructuring of hospitals together with their commercialisation, the respondents would pay more attention to the following: needs analysis (62.5%), setting of clear implementation targets (37%), longer and more accurate preparation for changes (37.5%) and improved communication between hospital staff and management as well as between their hospital management and establishing entities.

Conclusions

Commercialisation in itself is a formal change of ownership, therefore this is often just one element of broader restructuring efforts. Taking into consideration that restructuring run in hospitals stands for a series of actions aimed to reach a given goal, they are provisional in their nature, involve complex and coordinated tasks from various areas as well as need resources to be implemented, they can be said to be project-specific operations. It means that

undertaken actions should be planned, implemented and evaluated on the basis of project management principles. When assessing actions undertaken by public hospitals in reference to project management, it should be stated that hospitals do not plan them on the grounds of the methodological guidelines of project management; some compliance of elements under restructuring plans with them is rather accidental than deliberate. It can be seen for example in: definition of goals which fails to use tools such as SMART, or failure to appoint a Steering Committee, faulty selection of project team members (e.g. heads of wards) and failure to conduct analyses on stakeholders and risks. A lack of standards in the field of planning and conducting restructuring operations in public entities leads to arbitrariness to manage such projects, and thus may increase risk due to failure to achieve their assumed level of effectiveness both at target and work-package levels.

The research studies and their results let to state that there are no top-down guidelines to plan the restructuring of public hospitals, so that each and every hospital approaches the process in a different manner. Nevertheless, it should be noted that the research studies were conducted in public hospitals located only in the Silesian Voivodeship, that successfully completed their commercialization process and operated now as commercial law companies. To be able to generalize conclusion and analyze exactly this phenomenon the research should be extended by a wider scope.

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STUDY OF THE QUALITY OF SERVICES ON THE EXAMPLE OF THE SELECTED CHAIN OF DISCOUNT STORES

ANNA E. WOLNOWSKA

Maritime University of Szczecin, POLAND

e-mail: a.wolnowska@am.szczecin.pl

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service quality, Servqual, customer satisfaction, discount store

ABSTRACT

The share of discount stores in the Polish retail trade, has had a strong trend upward for several years. Poles pay more and more attention to the quality of the services offered by the discount stores network. Hence the aim of the article is testing the quality of services in the selected network.

The research was conducted in years 2015–2017 on the basis of the case study using Servqual method. The use of this method allowed to determine customer satisfaction in Netto discount stores chain as the difference between customer perception and expectations. The five criteria: tangibles, reliability, responsiveness, assurance, empathy were taken into account for estimating the quality of services. The conducted research allowed to state which of the mentioned areas is on a satisfactory quality level and which one is not, what weaknesses and strengths of the service offered by the studied discount stores chain are and what the relation between customer satisfaction and service quality is. The analysis of research results allows to state that retail chains should examine the quality level of their services systematically in order to be able to conduct expansive policy on Polish market regarding the growth of customer requirements.

Introduction

The subject of the research was the Netto shops chain located in Szczecin, West Pomeranian Voivodeship. The company possesses more than 360 shops in Poland, of which approximately 6% is located just in Szczecin. Moreover, this company possesses three distributive warehouses for its disposal and employs more than 5 thousand

persons. Such a state of possession gives the Danish retailer the third position in the Polish discount store market. (www.wiadomoscihandlowe.pl, 2017).

Discount stores are the shops that sell the standard articles at the discounted prices, accepting the lower profit margins and selling more products in this way. The assortment they have to their disposal is narrowed down to between 1,000 and 2,000 basic products (sjp.pl, 2017). The discounts often provide the lower prices themselves by creating their own brands, minimised supply chains and the faster rotation of goods (dobryslownik.pl, 2017).

In 2016, the dynamics of the increase in the number of all discount stores in Poland, was 2.1%. This is slightly more than in 2015 – 2.8% but much less than in the previous years. In 2010, the number of the discounts in Poland increased by 12.1%, in 2011 – 12.8%, in 2012 – 13.2%. From 2013 the increase of the number of discounts in Poland was not so intensive – 12.8%, in 2012 – 13.2%. From 2013 the increase of the number of discounts was not as intensive as it used to be – 11.7%, in 2014 – 9%. In this issue the discount stores of the Biedronka chain are the front runner – their percentage among in Poland is higher than 70% (www.portalspozywczy.pl, 2017).

Pursuant to the above data it may be assessed that the owners of the discount store chains are still fighting for the market against supermarkets and other forms of the trade.

Because of this reason, the discount stores have started to put a bigger impact on the quality of the services provided by introducing a more attractive interior design, new services for customers and opened new divisions and subsidiaries in the suburbs.

The aim of the research was to analyse the quality of services provided by the Netto discounts on the basis of the case study by means of the Servqual method and demonstration that the area customer satisfaction rating reflects the quality of services provided in more clear way and allows to improve them successively.

Literature review

The survey of the quality of services is a complex process (Bukowska-Pięstrzyńska, 2017) and, according to A. Jonas, it should be considered from three perspectives: customer, company marketing concept and competition (Czubała, Jonas, Smoleń, Wiktor, 2006). As it is specified by K.M. Staszyńska (1998) in such cases two phases should be also extracted: explorative and diagnostic.

The mentioned principles and phases may be found in the most of methods that serve to research the quality of services (Malati, Maheshwari, Jain, 2012). The methods used the most often are: Mystery shopping, Servqual, Servperv, Critical Incident Technique (CIT), Customer Satisfaction Index (CSI), Servsess (Landrum, Prybutok, Kappelman, Zhang, 2008).

The choice of methods depends on the needs and type of the activities conducted by a given company, the sector and know-how and abilities of the persons, who arrange the research of customer satisfaction.

Mystery Shopping is a process to measure the quality with feedback, it comes true the best in the services – in their part related to the direct interactions of personnel with consumer.

This method allows to execute the research in a continuous method, but is quite laborious, as it requires to prepare a precise questionnaire so as to use it to register facts not the subjective researcher's assessments. The choice of a mysterious customer is not incidental, but strongly connected with the research area. It should remind a typical customer using the service that is assessed (Dziadkowiec, 2004).

The Servqual method was developed at the end of eighties by a team of American scientists: A. Parasuraman, V.A. Zeithalm and L.L. Berry (1991) and was used initially to measure the banking services. Currently it is used

to the issues of the qualitative processes connected with external and internal customers, i.e. to the production processes of not only services but products too. It consists in the measurement of differences that are present between the quality perceived by customer and the quality expected by this customer. This is one of the most popular quality meters (Roslana, Wahabb, Abdullahc, 2015). To determine the mentioned difference, this is to research simultaneously the customer expectations concerning a given service and its implementation in case of a specific subject. In the Servqual method it is necessary to research five the most important dimensions of service (Qadri, 2015) that are evaluated and compared mutually (Wolnowska, 2009a). Using such a basis, a given company is able to determine its level of implementation of service towards customer and also acquire the more precise information related to the sources of problems related to the quality of service processes (Orel, Kara, 2014). The following may be included to the dimensions mentioned above:

- tangibles – appearance of physical facilities, equipment, personnel, communication materials,
- reliability – ability to provide in agreed time limit and of the adequate quality,
- responsiveness – quick reaction on current customer requirements,
- assurance – know-how and good manners of personnel and ability to inspire trust and confidence of customers,
- empathy – personalised and caring attention assured by the company to customers, identification with customers' needs.

To evaluate the service quality level in the scope of each of mentioned dimensions are to be designed two questionnaires, each consisting of 22 questions that relate to customers' expectations and the same questions related to way to perceive the service related to the company the service of which a respondent uses.

Each question is related to one of five Servqual areas. In the Servqual method, the seven point Likert's scale is used. It allows to assign the particular statements the value from I agree entirely to I disagree entirely. The bigger is the difference between the expected and perceived values, the bigger is purchaser's dissatisfaction. And if the difference is zero or the quality perceived is higher than the expected, then we may recognise a given element as fulfilling customer's expectations or even exceeding these expectations.

Also the third questionnaire is used in the method. This third questionnaire is related to the importance of the particular quality dimensions. It is made by the method of the constant sum used. Customer receives 100 points that he/she should distribute among the dimensions. There are present various interpretations of customer's expectations, which, of course, make the measurements much more complicated (Charles, Kumar, 2014). They may be interpreted as the service expected, as the perfect pattern or as the essential variable. Servqual is based on the gap between expectations and service execution, not on the service validity and execution (Wolnowska, 2009b). Trying to solve the problem related to expectations, in 1994 Parasuraman, Zeithaml and Berry divided expectations into two areas: the first to measure the services desirable, the second on the other hand to measure what services constitute a minimum to accept (Parasuraman et al., 1994). However, in 2000 Caruana, Ewing and Ramaseshan questioned the usefulness of measuring of different levels of expectations, claiming that the minimum expectations do not bring much value do not bring much value to quality service measurement, but to the contrary, cause additional problems in the interpretation of expectations (Caruana, Ewing, Ramaseshan, 2000).

The next known method of the research of the customer's satisfaction, in the form of a questionnaire interview, is CIT. In this method, there are taken into consideration the events, so called critical events related to customer's

satisfaction or extreme dissatisfaction. The critical events are as the elements that contribute in a significant way or reduce the result of the action taken (Wolnowska, Komorowska, Wardal, 2010).

Simpler in relation to Servqual is the Servperv method (Kucińska, Kołosowski, 2009). In this method, the customers' expectations are not taken into consideration but only their subjective evaluation of their observations. The quality of services Q is equated to the customer's perception P. The basis for assessment is five dimensions:

- perception of the key products features,
- reliability,
- reaction to customer's needs,
- confidence in implementation,
- company's consolidation with customer.

As in the case of the Servqual method, the respondents speak out on the subject of the validity of particular dimensions by distributing 100 points among them in the form of the questionnaire. The criteria are evaluated in the seven point Likert scale. The number of the criteria of evaluation taken into consideration in this method may be bigger than in the Servqual method (Trinh Thuy Anh, Phan Minh Tai, 2013).

The Customer Indication Index (CSI) is also treated as a tool to measure the effectiveness of marketing activities and allow to measure the level of customer satisfaction in relation to previously determined categories approved by the purchasers as the most important (Witkowska, 2007).

Mentioned methods, are also used as the questionnaire methods for customer satisfaction research. The full description of the customer's satisfaction are described by R.B. Woodruff and S.F. Gardial who determine that this is a positive or negative customer's feel in relation to the value received as a result of use the determined product offer in the specific situation (Woodruff, Gardial, 1996). This feel may also have a character of the direct reaction or a series of experiences in the determined frequency. The satisfaction level depends, among others on the level of wealth, experience, age and personality (Dziekoński, 2004). The relation between the quality of services and satisfaction was aptly captured by M.J. Bittner and A.R. Hubbert. They took into consideration that the quality of services includes the overall impression on the service provider and the services provided by this provider, whilst the satisfaction may refer to one event only. Pursuant to them, the quality of services provided is a broader concept and includes satisfaction as a transitional phenomenon (Bittner, Hubbert, 1994).

Summing up the above considerations, it may be concluded that despite differences between the quality of services and satisfaction of them they are closely connected one with another. That is why in the first and second cases the above mentioned methods may be used.

Method

The research was executed between 2015–2017 basing on the case study by means of the Servqual method. The following research order was accepted:

- development of questionnaire surveys,
- selection of the test sample,
- execution of questionnaire research,
- calculation of the Servqual values for particular areas,
- calculation of the unqualified Servqual value,
- calculation of the weighted Servqual value,

- determination of the standard deviation for the weighted Servqual value,
- analysis of results.

Results

The research was executed on the group of 340 respondents in the direct way with 100% return rate. The respondents were divided into two groups, which is shown on Figure 1. It may be noted that the largest group of Netto company customers is included within the age of 18–30 years old customers and a little less within the age 45–60 and 30–45 years old.

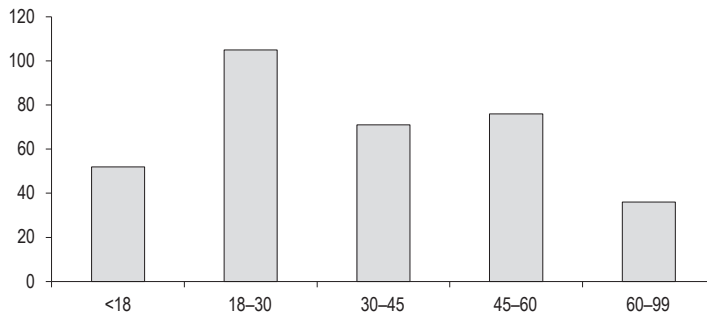


Figure 1. Respondents' age

Source: own elaboration.

The respondents made their purchases in the chosen discount network with the determined frequency shown on Figure 2. The research results manifest that the respondents made their purchases the most often every two weeks what may manifest they treated discounts equally to hypermarkets. Therefore, this is the information that the respondents perform in those places the purchases of the bigger volume, so called weekly.

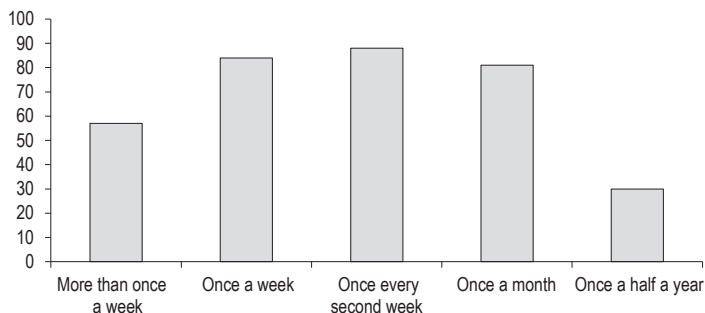


Figure 2. The frequency of purchases executed

Source: own elaboration.

The respondents determined the validity of particular areas, dividing 100 points among them. This is shown on Figure 3. The most important dimension for respondents is reliability, whilst the less important area is the empathy.

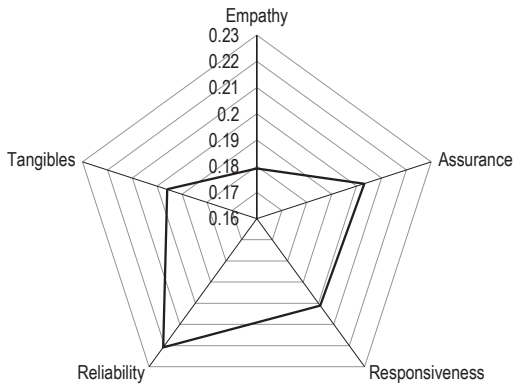


Figure 3. The values of particular qualitative features of particular quality features of the researched services

Source: own elaboration.

The respondents' answers demonstrated the existence of a considerable gap between expectations and perception of the services provided. The biggest discrepancy was noted in the question 11 concerning the reaction speed of the company to customers' needs and the question 12 concerning remunerate customers for service delays. The least gap was noted in the area of the material providing the service, concerning the transparency, timeliness and reliability of promotional newsletters. The gap values to the particular questions are shown on Figure 4.

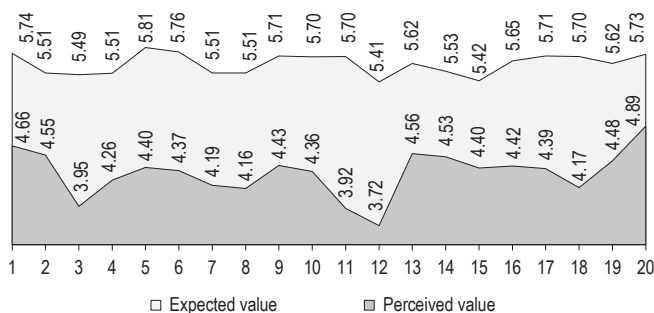


Figure 4. Comparison of expectations and perception of the Netto discount chain customers

Source: own elaboration.

The Servqual weighted and non-weighted result was determined on the basis of the data collected, in which there were taken into consideration the evaluations of particular dimensions by respondents. The research results are shown on Figure 5.

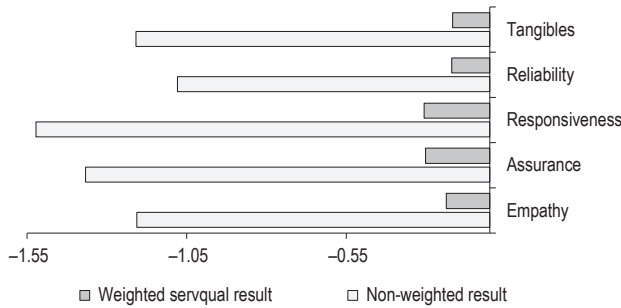


Figure 5. Weighted and non-weighted Servqual result

Source: own elaboration.

The evaluation of the importance of individual dimensions did not produce surprising results. However, it is an indication to the Netto company, which of the researched areas are particularly important to the discount customers and necessary to develop. Such information may also suggest the discount's strategic activities, spreaded over a specified time period.

It was determined on the basis the collected results and calculations of the weighted Servqual value, the standard deviation was determined for the each of dimensions that is shown on Figure 6. The most differentiated population refers to the areas: tangibles – 0.052, empathy – 0.05 and responsiveness – 0.049. The respondents gave the extreme answers in these areas. There is the opposite situation in the case of the assurance and reliability criteria. Here, the respondents' answers were not so varied and deviated one from another.

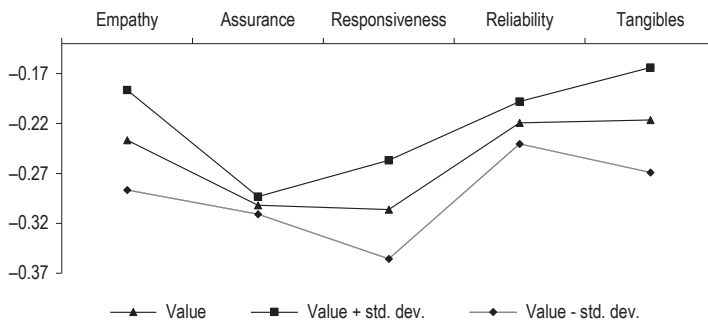


Figure 6. Comparison of the weighted Servqual result with the standard deviation taken or not into consideration

Source: own elaboration.

Limitations

The survey was conducted among Netto discounts in Western Pomerania, so the test results may or may not necessarily represent the views of Netto discounts throughout the country.

Conclusions

Customer's satisfaction cannot be omitted in the quality service research. It should be used these methods that take the customer's needs and expectations into consideration. And, although we may use the Servperv method in improving the service quality, assuming the customers' expectations on the highest level, however, the Servqual method is more advantageous to the research customers' needs in a detailed way. This method allows to:

- determine the quality service level related to each of five basic dimensions,
- calculation of the weighted quality level,
- determination of the average level of discrepancy between the expectations
- of respondents and their perception of the service provided with the area validity taken into consideration,
- identification of customers' expectations and experience and monitoring
- these changes in time,
- comparison of received research results with other, competitive companies
- of the sector,
- tracing the strengths and weaknesses the services offered by a company,
- determination of the level of service provided by one organisational units for the benefit of others within one company.

The quality measurement methods have the operational value only when in their result we are able to determine the areas or places in which the service fulfilled or not fulfilled the customer's expectations.

In the future, the analysis might be extended by determination of customers' preferences concerning the validity of particular areas taking into consideration the age groups and frequency of purchases in the researched discount chain. The result of such an analysis could serve a given trade company to formulate the marketing and strategic activities.

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CSR AS A MARKETING COMMUNICATION TOOL FOR COMPANIES IN THE FINANCIAL SERVICES SECTOR

MARIUSZ WOŹNIAKOWSKI

University of Lodz, POLAND
e-mail: m.wozniakowski@uni.lodz.pl

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ABSTRACT The article focuses on the identification of the concept and the role that corporate social responsibility may play in marketing communication of the companies of the financial services sector. The reflections start with an overview of the essence of corporate social responsibility, and move on to illustrate the relations between CSR and marketing communication. The author's own research is the key part. For the purposes of this publication, an analysis of the website contents of the financial sector companies (operating on the Polish market) was conducted. The companies come from the compilation „Lista 500” of the largest Polish enterprises, published by „Rzeczpospolita” daily in April 2017 (the entities whose PKD classification – Polish Statistical Classification of Economic Activities – was specified predominantly as: financial and insurance activity, were selected). The article describes how the listed entities communicate their CSR activities via the company website. It illustrates selected areas of engagement (5 were highlighted) as well as the relationship between activities of pro-social nature and the activity in the area of marketing communication in a given industry. Moreover, it emphasises the differences in the mode of communication and the area of employing CSR activities between two dominating groups of entities on the financial market – banks and insurance companies.

Introduction

Today's strongly competitive market presents companies with increasingly more challenges related to gaining and retaining clients. In order to stand out and project a good image, companies have started considering social interests, relations with various groups of stakeholders or natural environment protection at an early stage of

developing strategies, which translates to active participation in the area of corporate social responsibility (CSR) as well as (indirectly) to the way these activities are communicated to the surroundings (Woźniakowski, 2015).

Currently, companies' participation in corporate social responsibility is largely unrelated to strictly philanthropic activities of an entity. CSR has become the right approach required by most stakeholders towards the society in which the activity is conducted. These days, most marketing measures are based on interpersonal relations, which entails human emotions. This fact encourages marketers to make the most of pro-social activities. Therefore, supporting activities from the area of CSR may also be aimed at the development of good relations with the environment and the creation of a company's positive image or its improvement (Gontarczyk, 2003) This in turn is used in PR activities. Thus, it can be assumed that the CSR policies, including the financial sector entities, is primarily dependent on financial results and the role of the CSR activities in the hierarchy of communication strategies of these units (Woźniakowski, 2015).

This article will focus on how the companies in the financial services sector communicate their CSR activities via their company websites. It will discuss selected areas of engagement and the relationship between pro-social activity and marketing communication activity, particularly in the area of these entities' public relations.

The Essence of Corporate Social Responsibility

The CSR research offers rich empirical and theoretical materials that explain the origin and development of this concept. CSR emerged in the USA in response to certain institutional gaps (Carroll, 1999), which resulted in a shortage of goods and public services rendered by the government for the benefit of its citizens. Initially, the concept of social responsibility translated to various private persons' and companies' investments into medicare, education, libraries or elementary systems of employee protection, offered to the society (Husted, 2015). Today, the concept of CSR involves numerous corporate activities, such as: employee rights, natural environment protection, human rights, health protection, local communities' development, or the development of Third World countries (Jenkins, 2005).

Social responsibility, as a concept in management sciences, exhibited for the purposes of today's business, is gaining popularity also in practical terms, regardless of the disputes about its actual role in business (Kuźbik, 2016). According to S.P. Sethi (1975), an organisation considering responsibility may act in three ways, which are: social duty, social responsibility and social sensitivity. According to this distinction of attitudes towards responsibility, organisations must first meet the precondition, which is operation that complies with the law and market requirements. In other words, they must follow the law and provide added value to the environment in general. An organisation is socially-responsible if it meets the precondition, and simultaneously, respects common standards, values or social expectations towards its existence. The highest level of responsibility, according to Sethi, is social sensitivity. At this level, an organisation is ready to actively participate in social problem-solving or concentrate on the needs of a given society.

In 1971, Ph. Kotler and G. Zaltman used the term „social marketing” in reference to solving general social problems via commercial marketing tools (Wieczorkowska, 2003). At the same time, M. Friedman (1970) took a rather different approach, claiming that „the only corporate social responsibility is towards shareholders, CSR activities should not take place as they lower a company's profits.” Today, it seems that the discussed concept is most frequently identified with the approach represented by the European Commission, which defines CSR as „a company's voluntary consideration of social and ecologic aspects while conducting commerce and contacting stakeholders” (Krukowska, 2015).

Despite differences in the interpretation of the CSR concept, one aspect should be agreed upon – a company that plans on implementing activities from this area should be aware that it faces a challenge because it is a path from which there is no return. In a situation where a company wishes to back out of CSR activities, it opens itself up to negative comments on the side of clients, damaging its image and credibility in the eyes of market co-operatives.

The Relationship between CSR and Marketing Communication

Ph. Kotler defines marketing communication as „various ways in which companies attempt to inform and convince consumers as well as remind them – directly or indirectly – about their products and brands which they offer. In a sense, marketing communication is the voice of a company and its brands; a way, in which a company may establish a dialog and develop relations with consumers” (Kotler, Keller, 2012). Analysing the quoted definition of marketing communication and earlier definitions of CSR, it could be assumed that corporate social responsibility is inscribed in the communication trend described above. However, marketing communication (traditionally speaking) is made up of several tools: advertisements, sales promotion, public relations, direct marketing and personal sales. Looking through the lens of individual tools' specification, it appears that CSR shares the most features with public relations.

Practically speaking, public relations is about the creation and development of good contacts with the environment via communication. This process is defined by mutual social interactions via communiques that are aimed at mutual understanding of specific contents, which influences the opinion and approach of the audience towards the issued communiques. Therefore, „public relations is a process of communication between an organisation and its surrounding which is to achieve planned objectives while using appropriately selected means and methods” (Piasta, 1996). As such, public relations may be understood as a complex of specifically organised activities which ensure that a company systematically communicates with its surrounding, and aim at provoking desirable approaches and activities (Gasparski, Rutkowski, Wrzosek, 1992), for instance, creating an image of a socially-responsible company through activities performed in this area.

The relations between corporate social responsibility and public relations have not been entirely examined, which leaves room for questions and controversies. For some marketers, CSR is one of PR's tools. Others believe that CSR should be a distinctive form of activity. It should be noted that in many cases, the areas of CSR and public relations overlap. CSR is often viewed with suspicion – not as a genuine need to help others, but only a means to creating a positive image. Therefore, public relations should be the main communication tool for the CSR programmes. It is worth remembering that PR's mission should not be proving that helping is a company's fundamental value and making profit is only a side effect (Okoń, 2009).

In defined strategies for social engagement the following support forms can be considered: donating products or services; employee volunteer work; financial support (e.g. patronage, sponsorship); using a company's influence on the environment; social engagement marketing campaigns (e.g. Share Your Meal); sharing an office/space; purchases on local markets. The cooperation mechanisms include: corporate foundations (e.g. PKO BP Foundation); programmes supported by a corporate trademark (e.g. „Grasz o staż” – play for an internship); companies' and NGO's strategic partnerships (e.g. the financial service of the Great Orchestra of Christmas Charity by Bank Pekao); company coalitions that combine social activities with a brand's interests and/or companies' profits (e.g. „Nie robisz tego w realu? Nie rób tego w sieci!” – if you don't do it in real life, don't do it on-line – mBank's campaign to protect against cybercriminals); local inter-sectorial coalitions (Greszta, Kozakiewicz, 2009). All the above-mentioned

activities may be used in communication operations in the area of a company's public relations. Some of them may be treated primarily as PR tools (e.g. patronage and sponsorship) and not CSR.

Surely, an increased role of CSR in the activity of the financial sector companies will raise more questions about its role in an organisation. Regardless of the position towards public relations, there is no doubt that social engagement activity intensifies PR's effects. The advantages of CSR in the area of corporate activity include, among others: the creation of a company's positive image; legitimising a company's mission in the eyes of clients, suppliers, cooperatives, etc.; gaining, or maintaining trust and loyalty of both current and potential clients; gaining local community's acceptance; contribution to improving internal situation in a company (e.g. increased satisfaction and happiness of employees, or an increase in their loyalty and willingness to identify with the company).

Research Methodology – Analysis of the Contents of Websites

According to the data of the KNF – Financial Supervision Authority (2018), at the end of the year 2017, 35 commercial banks and 533 cooperative banks operated in Poland. According to data published by GUS – Central Statistical Office (2017) at the end of the year 2016, the licence to conduct insurance business had 62 insurance companies, out of which 61 establishments were operating.

Due to the volume restraints, only the scope of using csr by the largest companies in the financial services sector has been verified for the purposes of this study. It analyzes the contents of websites of the companies from the compilation of „Lista 500,” the largest Polish enterprises published by „Rzeczpospolita” daily in April 2017 (the entities whose PKD classification – Polish Statistical Classification of Economic Activities – was specified predominantly as: financial and insurance activity, were selected). This particular ranking was employed as it is mostly large companies that pioneer the implementation of CSR activities and have adequate resources to conduct pro-social, large-scale operations. A total of 48 entities from the financial industry have been classified, including 20 banks, 25 insurance companies, and 3 companies engaged in a different kind of financial activity (on-line currency exchange office, short-term loans, leasing and managing company car fleet). Further analysis focused on 10 top entities from the first two groups, and all the others.

An audit of the contents of the websites was divided into 5 areas which verified:

1. Does the website present the company's mission, vision and values? If one of the elements was present, it was analysed whether its content included references to the role of social responsibility in everyday operations of a given entity (e.g. a fragment of PKO BP's mission: „We wish to continue having a positive influence on Poland – the people, companies, culture and natural environment. As one of the largest banks in Central and Eastern Europe, we handle responsibly the interests of our shareholders, clients, employees and local communities”).
2. Does the company have a corporate foundation and does it provide information about it on its website?
3. Where can information on potential CSR be found in the layout of the website? Is it contained in a separate tab on the website's menu or is it a direct link dedicated to the website's CSR content (e.g. corporate foundation)? Is the information on CSR located in the website's section devoted to news and/or pressroom?
4. Does the given entity publish information about CSR in other places on-line that are hyperlinked on the company website, e.g. profiles on social media, hyperlinked pages of social campaigns, etc.?
5. Does the company publish up-to-date social reports (not older than two years)?

Communication about Social Engagement of the Companies of the Financial Services Sector via Websites – Analysis Results

The conducted analysis illustrated that 14 out of 23 researched companies presented their mission, vision and values on their website (the details are found in Table 1). In 11 cases, their contents included a direct reference to corporate social responsibility. It is noteworthy that in two cases, despite a lack of reference to CSR in the mission, vision or values, it could be found in other places. In the case of Millenium Bank, the tab devoted to CSR included a position „influence of Millenium Bank on the society and natural environment”. On the other hand, Bank

Table 1. Communication about Social Engagement of the Companies of the Financial Sector via Websites

No.	Rank on „Lista 500”	Name of the company	Website's address	Mission/Vision/ Values	Mission/Vision/ Values – in reference to CSR	Corporate foundation	Placement of the information about CSR on the website		Publications about CSR in other places on-line	Social report
							CSR – a tab on the website or a link to the foundation	CSR in the news and/or pressroom		
Banks										
1	13	PKO BP	pkobp.pl	yes	yes	yes	yes	yes	yes	yes
2	34	BZ WBK	bzwbk.pl	yes	yes	yes	yes	yes	yes	yes
3	38	Bank Pekao	pekao.com.pl	yes	yes	yes	yes	yes	yes	yes
4	61	mBank	mbank.pl	yes	yes	yes	yes	yes	yes	yes
5	63	ING Bank Śląski	ingbank.pl	yes	yes	yes	yes	yes	yes	yes
6	92	Alior Bank	aliorbank.pl	–	–	–	–	yes	yes	–
7	94	Bank Millenium	bankmillenium.pl	yes	–	yes	yes	yes	yes	yes
8	106	Getin Noble Bank	gnb.pl	–	–	yes	yes	yes	–	–
9	108	Bank BGŻ BNP Paribas	bgzbnpparibas.pl	yes	yes	yes	yes	yes	yes	yes
10	142	Bank Handlowy w Warszawie	citibank.pl	yes	–	yes	yes	yes	yes	yes
A total of “yes” for banks				8	6	9	9	10	9	8
Insurance companies										
1	5	PZU	pzu.pl	–	–	yes	yes	yes	yes	yes
2	60	Grupa Warta	warta.pl	–	–	–	–	–	–	–
3	62	Grupa Ergo Hestia	ergohestia.pl	–	–	yes	yes	yes	yes	yes
4	169	Aviva TUnŻ	aviva.pl	–	–	yes	yes	yes	yes	–
5	179	Open Life TUŻ	openlife.pl	–	–	–	yes	yes	–	–
6	184	TUIR Allianz Polska	allianz.pl	–	–	–	yes	yes	yes	–
7	186	MetLife TUnŻiR	metlife.pl	yes	yes	–	yes	yes	yes	–
8	222	Generali TU	generali.pl	yes	yes	–	–	yes	–	–
9	230	Nationale-Nederlanden TUnŻ	nn.pl	yes	yes	–	–	yes	–	–
10	251	TUnŻ Compensa	compensa.pl	yes	–	–	–	yes	yes	–
A total of “yes” for insurance companies				4	3	3	6	9	6	2
Other financial activity										
1	11	Cinkciarz.pl	cinkciarz.pl	yes	yes	–	yes	yes	yes	–
2	220	Provident Polska	provident.pl	yes	yes	–	yes	yes	yes	yes
3	450	Prime Car Management	primecar.pl	–	–	–	–	–	–	–
A total of “yes” for other entities				2	2	0	2	2	2	1
A total of “yes” for all entities				14	11	12	17	21	17	11

Source: own work.

Handlowy in Warsaw had its reference to CSR in the tab „the rules of conducting the sponsorship programme” of the following content: „the bank conducts a sponsorship programme which constitutes an element of its business mission”, however, a similar indication could not be found in the mission itself.

Among the researched institutions, 12 conducted their own foundation. In the case of ING Bank Śląski, there were two: Foundation ING for Children and Foundation ING for Polish Art, which suggested the scope of their activity in their names. Thus, it can be concluded that the researched financial institutions communicated via their websites about 12 conducted corporate foundations.

In terms of the place of the information about CSR activities on the website, in 17 cases they were separate, dedicated subpages that were named differently in the menu of the page (foundation, CSR, social responsibility, sponsorship, patronage, etc.). In some cases, there were more subpages devoted to pro-social activities. For instance, on the main page, BZ WBK had 4 visible links to social activity: Foundation BZ WBK, Sponsorship, Responsible business, and Santander Universities. The last element is an interesting programme supporting university education and research programmes. In 21 cases, the information about CSR activities appeared in various sections of the company website, most frequently in the news and/or pressroom (the section dedicated primarily to journalists).

Another analysed area, that is the publication of CSR information in other places on-line which was hyperlinked on the company website, was an element that was evaluated positively in 17 cases. Most often, the information about social engagement was communicated via social media profiles (mainly Facebook) and/or company blogs. The last verified activity established that 11 entities published their own social report (at times related to the report on the corporate foundation’s activity), most often in the form of a downloadable file.

The analysis of CSR activities communicated via company websites, faired interestingly when 10 banks were compared with 10 insurance companies. In each area, banks had more notes confirming a given activity. 8 banks and 4 insurance companies provided information about their mission, vision or values on their website. 9 banks conducted their own corporate foundation, about which they communicated on their website. In contrast, only 3 foundations were conducted by insurance companies. Also, 9 banks had a tab (or several tabs) in the layout of the menu that was dedicated to social responsibility, compared with 6 insurers. An identical numerical structure recurred in the case of publishing information about CSR in other places on-line, which were hyperlinked on the company website. The last area – publishing social reports, as before, was in favour of banks in the ratio 8 to 2.

Conclusions

An increased pressure put on companies to elicit socially responsible behaviour illustrates the changing role of economic entities in our society. CSR as a concept should be understood and analysed as a function of numerous socio-economic and political processes, such as: technological progress, globalisation, liberalisation of the trade, growing pressure and expectations of the media and consumers as well as the emergence of CSR promoting instruments

Following the observation of the largest companies of the financial services sector on the Polish market, it can be concluded that the idea of social responsibility is gaining influence on the creation of brands. However, there are still a number of defects in the way CSR activities are communicated and the activity itself at times does not seem well thought-through or cohesive with the rest of the company’s marketing communication strategy. Based on this, it can be concluded that CSR is still an area that needs improvement among the companies of the financial

services sector. The comparison of banks with insurance companies (in favour of the latter) surprisingly shows how diverse communication about social engagement can be, considering the numerous capital interconnections between both kinds of institutions. CSR is an opportunity to build a positive, distinctive image, prove that the policy is coherent and clear to the recipients and that it is appropriately supported by the activities from the area of marketing communication, including public relations. Conducting CSR in this manner offers an edge over competition because recipients start associating a given company with a decent citizen.

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SAFETY AND SECURITY AS THE BASIC DETERMINANTS OF QUALITY OF HOTEL SERVICES

EWA WSZENDYBYŁ-SKULSKA,¹ MAREK ZAWARTKA²

Jagiellonian University, Kraków, POLAND

¹ e-mail: e.wszendybyl-skulska@uj.edu.pl

² e-mail: marek.zawartka@uj.edu.pl

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ABSTRACT

The ultimate goal of any hotel is to care about the quality of services. One of the key dimensions is to provide customers/guests with a sense of security. So far, the issue of security in the hotel industry has been the subject of few studies both in Poland and abroad which explains the reason why the problems have been talked over especially in the face of growing threats. The aim of the study is to present the selected security dimensions and threats experienced by hotel facilities and to present ways to improve processes of safety assurance in order to ensure the highest quality of hotel services. The conducted research based on the analysis of two aspects of security (crime and compliance with fire regulations) in hotel facilities allowed to identify major threats affecting a decrease in the level of guest/customer safety in Polish hotels and then to point out actions to be taken in order to reach an adequate and compliant with the requirements level of hotel service quality.

The research was conducted using critical analysis of the literature on the subject, legislation and internal documents of hotels nationwide and worldwide as well as methods of data analysis of the Police Headquarters and the Headquarters of the State Fire Services and in-depth interviews.

The results of the conducted analyzes allowed to indicate different ways to improve safety in hotel facilities where system solutions and involvement of many entities for shaping a quality hotel product of the region are required.

Introduction

Massively increasing demand for hospitality services causes more and more objects providing such services are being created. They must compete with each other and fight for the hospitality market becoming at the same time the driving force of economies. Undoubtedly, in this struggle hotels need to know the factors that may help support their competition with other market participants in order to obtain a sustainable competitive advantage.

Such a fundamental factor for competitiveness and success is quality (Rapacz, 2007) and essentially its continuous improvement.

One of the most important aspects of quality of hotel services is safety. It is also considered as one of the five forces along with technology, marketing, human resources, assets and capital that have a major global impact on the industry. However, only after the bombing attacks at the hotels in the Indian Mumbai, Marriott and Ritz-Carlton in Jakarta, Mumbai or terrorist attacks in Egypt, Iraq, the United States, the SARS epidemic, a tsunami, the need to ensure safety and security has become everyone's priority

The basis for assessing compliance with minimum quality standards became the accepted legal rules at hotels, activity of which is based on meeting technical requirements and maintaining safety and consumer protection. While accepting certain standards of hygiene of the offered services, fire regulations or gastronomy is a necessity imposed by the law, certain areas unregulated by the law where the level of the given services is dependent somewhat on the management goodwill still remains.

The aim of the study is to present the selected security dimensions and threats in hotel facilities as well as to present ways to improve safety assurance in order to ensure the highest level of hotel services. The authors of the work pointed to the dimensions of security (safety and security) in hotels both in macro and micro scale. However, particular attention was paid to its two dimensions at the micro level: fire protection (resulting from the provisions of law) and related to crimes committed within the area of hotels.

The concept of quality of hotel services and its dimensions

In today's world quality of hotel services is not just a fashion. It has become a standard. Increasingly, quality becomes the exclusive element influencing consumer choice.

Considering the fact that quality is by nature a relative category which does not exist in itself, it should be considered in conjunction with the objective of its provision. The main objective of hotel services is to meet the needs of visitors with regard to their stay at a certain hotel. Thus, one can say that one of the leading principles of hotel industry is hospitality understood as provision of comfort, standard, level of service, safety and security, a good atmosphere during a stay at the hotel and high professional and ethical and moral level of the staff (Witkowski, 2002).

At the same time when considering the above, it is clear that failure to provide safety and security has an impact on failing to provide the remaining elements, i.e.: comfort, standard, atmosphere, etc. Unless the hotel provides one of the basic needs of every human being (security), there is no possibility to satisfy the higher needs, i.e.: the need for respect or acknowledgement that is clearly expected by hotel guests (Borkowski, Wszendybył, 2007).

Thus, assurance (among others: safety and security), along with tangibility, reliability, responsiveness and empathy, is one of the key dimensions of hotel service quality, which is considered by numerous researchers (Parasuraman, Zeithaml, Berry, 1985; Borkowski, Wszendybył, 2007; Panasiuk, 2007).

Although most authors define quality as a primary demand of a customer that must be met, the key issue is the need to consider and reconcile the interests of guests and the hotel itself. Both of these groups of stakeholders have indeed different requirements. However, the importance of the safety aspect (one of primary dimensions of quality of hotel services) for both parties seem to be a priority (Chan, Lam, 2013).

Essence of safety and security in hotels

Providing hotel security is not a simple and easy process. Specificity of hotel industry makes each participant of the hotel market understand the aspect of safety and security differently (Jedlińska, 2008). In addition, it is multidimensional. The concept of security in hospitality operations has many times been addressed in tandem with that of safety, even though the general thrust of each term is somewhat different.

Today, the concept of safety applies to disasters, fire protection, conditions which guarantee freedom from injury and damage to property. In contrast, security is a concept used to determine the need for freedom from anxiety, fear as well as protection and defense against stealing guests'/customers', employees', companies' possessions and theft from customers/ guests and employees.

Although the two concepts of safety and security are often used interchangeably, they describe, however, two different phenomena as it is pointed out by Enz and Masaco (2002) who claim that safety involves protecting employees and customers within the hotel property from a potential injury or death, while hotel security deals with preserving guests' possessions and hotel property. There is a close relation between these two concepts: weakening of security increases the risk of reduction of safety. As a result, safety and security are directly proportional, but both are inversely proportional to the risks.

Safety and security value may be difficult to measure and quantify (Walsh, 2015). Therefore, the importance of hotel safety and security should not be underestimated at the design stage of a facility and services it offers before "something" happens.

Hotel safety and security are complex issues as much as how complex a hotel product is. Safety and security are the functions of a building construction and adopted architectural solutions, security system and monitoring. They are also a result of the procedures and operations performed by the staff equipped with appropriate knowledge and skills.

The presented issue of ensuring safety and security in the hotel industry shows a broad field of threats that objects, their guests/customers, employees and partners are facing. The following part of the work is focused on two dimensions of micro safety, that is: fire safety, and the one associated with crime committed in hotels. It is due to the fact that those are the most common problems faced by hotel managers on a daily basis.

Fire safety in hotel facilities

Hotels are classified as objects vulnerable to fire, so there is a constant tendency to tighten rigor in the obedience to all formal and legal regulations in this regard.

According to current regulations, there is an obligation to install fire detection systems in hotels, whose mission is to detect the risk of fire as soon as possible, to ensure safety of persons residing in these facilities, and in particular to allow rapid evacuation. It is also advisable to install these devices in hotels that are not subject to the above rules.

The data presented in the two tables below shows in what extent the systems are used and fire protection regulations respected by hoteliers in Poland.

Table 1. Results of monitoring of compliance with fire safety regulations in Poland between 2009 and 2016

	2009	2010	2011	2012	2013	2014	2015	2016
Objects checked	1,531	1,492	1,804	2,012	1,462	1,598	1,783	2,012
Objects with identified irregularities in total	856	794	1,044	908	585	631	710	749
Irregularities in total	3,980	3,283	4,739	3,845	2,474	2,496	2,725	2,509
Fires	109	85	123	112	120	132	151	140

Source: Headquarters of the State Fire Service of Poland.

The data presented in the table above shows that between 2009 and 2016 irregularities were found in every second hotel facility controlled by fire services (approx. 2 per each object). They referred mainly to evacuation, poor condition or incorrect use of utility installations, water supply and fire protection ones as well as lack or poor legibility of fire safety instructions. Positive aspects are a decrease in the number of hotel facilities in which irregularities occurred (from 57.8% in 2011 to 37.2% in 2016) and a decrease in the total number of irregularities within the objects (from 4739 in 2011 to 2509 in 2016). Nonetheless, the number of found irregularities is still large. Equally, the data showing the number of fires in hotels triggered by faulty installations is alarming.

The number of objects where irregularities were found as well as the number of irregularities alone have been decreasing and so has, since 2012, the number of decisions by the Fire Service on the removal of irregularities. There was also a slight increase in building acceptance testing by fire services although surprisingly 30% of all objects received a negative decision. It may be the evidence of stringent inspections by the Fire Brigade or lack of knowledge on the threats that may arise from non-compliance of regulations (Headquarters of the State Fire Service of Poland).

Fire safety depends mainly on compliance with requirements and regulations. However, it is also dependent on managers' awareness and knowledge in this field. Therefore, unless hoteliers are going to comply with fire regulations and realize how meaningful these are for proper functioning of hotel facilities, it probably will be difficult to convince them to introduce other procedures, staff training in negotiation techniques, observation of the environment and to draw appropriate conclusions. The problem can be seen by analyzing another safety aspect related to crimes committed within the hotel premises.

Crimes committed in hotel premises

A hotel's "everyday crime" does not mean terrorists, but theft and burglary instead. According to the residual statistics, the number of such crimes in hotels usually increases during recession. Statistics are rudimentary and incomplete since hotels are trying hard to care about their image and good name, and many of them do not report crimes to the police. Some hotels, according to their capabilities and skills to protect themselves are trying to detect the perpetrators, and if they succeed, they adverse consequences to the guilty. When the culprit turns out to be an employee, he or she is usually dismissed, and when it comes to hotel guests, they are banned from entering the hotel. A hotel located in a large city experiences at least one offense per day. Most often it is theft.

In Poland theft and burglary account for 90% of hotel crimes recorded in police statistics (Table 2).

Table 2. Number of offenses committed (recorded) in the area of hotel facilities in Poland between 2009 and 2016

Year	Assassination	Injury	Fight or assaults	Rape	Theft	Burglary	Extortion crimes
2016	5	56	25	11	952	299	9
2015	1	48	23	12	928	287	23
2014	1	43	23	12	1,047	264	16
2013	1	51	31	5	1,108	252	24
2012	1	44	26	14	1,041	228	14
2011	3	36	34	15	1,010	282	29
2010	2	36	31	15	1,152	384	32
2009	2	47	54	12	1,149	444	25

Source: Police Headquarters of Poland.

According to the table, minor offenses, i.e. : theft and larceny of not very high values are the biggest problem. The greatest detriment for both guests and hotels is an invasion of privacy and loss of trust.

Analyzing the data presented in the above table, one can see a very positive trend, i.e. over 20% decrease in the number of crimes committed on a hotel territory in Poland in 2016 (1,357) compared with 2009 (1,733). Were it not for the fact that, as it has already been indicated, hoteliers in order to care for the image and reputation of their facilities, relatively rarely report on crimes committed within their properties to the police.

Improvement actions in the field of safety and security in hotels to ensure a higher level of quality of hotel services

Given the above considerations, it is clear that there is no chance to offer a quality service unless one of the basic needs, i.e. safety and security, is met. It is therefore essential to take up improvement activities that not only help hoteliers provide an adequate level of safety and security in accordance with the requirements (both customers and various institutions) but also boost service quality and its continuous improvement.

Taking the specifics of the hotel industry into account and facing the necessity of making a variety of decisions by employees, often without possibility of consulting the manager, it is worth protecting any possible areas of a hotel facility, preparing appropriate procedures and implementing a program to help employees' daily responsibilities in order to provide the highest level of services. However, to make it happen, it is necessary to educate owners and managers of hotel facilities on proper understanding of the concepts of safety and security and their importance in proper shaping of quality of services offered and thereby functioning of a hotel. Security is the part of hotel operation which is usually least invested in assuming that such investments do not translate into a financial result. It is a big mistake as the inclusion of certain security solutions at the design stage of the building often saves expenses during an operation.

It means that already at the design stage of the building and its construction or adaptation, cooperation between designers, conservators, owners, managers with the institutions supervising compliance with the provisions for safety insurance is fundamental. This cooperation may take place in various forms, including the one based on the creation of joint advisory or initiative teams (Szymańska, 2017), or initiatives related to hotel certification in terms of security. The "Safety Certificate-Safe Karpacz" program, which is an initiative of a number of entities, whose aim is to motivate owners and users of facilities to take greater care of their clients' safety, as well

as to free up initiatives and creativity in the process of improving safety on the premises, is worth mentioning as an example of such cooperation (*Certyfikaty bezpieczeństwa...*, 2018). The Police, representatives of government and self – government administration and social partners interested in improving public safety and order are involved in the program.

In this regard, a big role should be also played by government institutions and economic administration by organizing training sessions and meetings aimed at increasing hoteliers' knowledge and awareness on safety and the impact of the aspect not only on quality and efficiency of a single object but also on the entire branch of industry in the region.

All employees of a hotel facility should also be subject to trainings, no matter a department they work at bell boys, to front desk staff, to housekeepers to others, they are responsible for creation of culture of safety and professionalism in order to keep everybody safe and secure.

It is definitely easier for net hotels to realize the assumption as they have centralized services responsible for security that monitor the security system and conditions in all facilities that belong to the network, have defined specific procedures and standards compliance with which is required by their employees. Managers of independent objects experience even more serious difficulties. Nonetheless, it is them who should pay special attention to development of cooperation between hotels and mobilize local governments to it in order to reach common solutions for training and counselling in the field of hotel securing.

In addition, it is worth educating guests. It is due to cultural differences of guests/customers and employees of hotel facilities that result in different approaches to security issues.

Therefore, there is a justified need to develop a large-scale cooperation between hoteliers as well as between hoteliers and the local government, fire services, police and media that aim at a common concern for safety and security in hotels which are essential for shaping quality of a hotel product.

Conclusions

Providing safety and security means more than peace, not only in the form of hotelier's and guests' safety, but also easier hotel management, improvement of employees' efficiency, finding and eliminating inefficiencies in the operation of the object (Arbelo-Pérez, Arbelo, Pérez-Gómez, 2017).

A safety level depends mainly on compliance with the requirements and regulations of hotel facilities as well as on managers' and employees' awareness and knowledge in the field.

Managers of hotel facilities should build long-term trust of their customers and improve quality services by providing them with a sense of security in many areas (not only those required by the law).

The issue of safety and security in hotels is broad and refers to more and more aspects. There are new threats hotels will face and learn in the near future. The problem of safety and security in hotels is complex as it must be seen in a wider context of cause-and-effect relationship, noting the elimination of complex factors. The issue of ensuring safety and security is not of responsibility of hoteliers only. It requires systemic solutions and involvement of many actors in order to shape a quality hotel product in the region.

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THE FINANCIAL SECTOR TOWARDS EFFICIENCY OF SUSTAINABLE DEVELOPMENT FINANCING IN THE LIGHT OF LITERATURE REVIEW

MAGDALENA ZIOŁO

University of Szczecin, Faculty of Economics and Management, POLAND
e-mail: magdalena.ziolo@usz.edu.pl

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ABSTRACT

The paper reveals that the relation between finance and sustainable development (SD) is a relatively novel area. The paper aims to draw attention to the significant gap in the existing research, along with the issues of SD. The concept of SD requires a lot of attention, but seeing the cognitive category from the perspective of the discipline of finance, the latter is unsatisfactory. At the same time, the rank problem, its strategic dimension and the amount of financial resources allocated and disbursed for the purposes of focusing around sustainable development, identification of financial phenomena accompanying this category is seen as a priority. The research methods compose of critical analysis of literature, induction, deduction and reduction, desk research and dependencies and causal analysis. The time of analysis is 2017/2018. The manuscript deals with two main research questions that have been formulated as follows: 1. How to include multidimensional, holistic and long-term perspectives of SD into finance? 2. How SF impacts on efficiency of financing of sustainable development? A few conclusions/suggestions can be made to solve the research problem and include the SD perspective into finance: 1) internalization of externalities in the calculation of an investment (i.e. in a company's present value); 2) assigning a long-term horizon to investments, also as a necessity for maintaining the prospect of safeguarding financial capital for the future; 3) progressive substitution of financial ratios with sustainability ratios; 4) a changing perspective on the connotation of financial profits.

Introduction

Sustainable development, when seen from an economic point of view, along with the research problem, has been widely described in literature. Despite numerous publications on this subject, it remains under recognized with a definitional standpoint, of the impact and the impact on the economy and stakeholders. This diagnosis applies in particular to the issue of financing of sustainable development. The interpretation of sustainability concept and

its meaning is particularly important from the point of view of discipline and finances, for which sustainable means, among others, the financial sustainability of results, or balance in the context of managing deficits and debt, which is shaping financial balance/the budget at state level, local government, the financial system etc. In addition, the complexity of the category, which is sustainable development parallel to the economic, social and environmental causes, that the scale of relationships, interactions and interdependencies of this phenomenon is very broad and difficult to diagnose and research. It brings forth the cognitive difficulties, resulting mainly from limitations in measuring the phenomenon and difficulty in the same interpretation of the results (including its multifaceted phenomenon interdisciplinary).

Research on sustainable development and its financing are desirable and also justified by the fact that this is one of the strategic concepts implemented at community level, which is to counteract and mitigate the impact of negative externalities on the economy, society and the environment, and to provide comparable dynamics of development (but the growth as well) to all its beneficiaries. At this point, it is worth noting the special role of sustainable development in tackling the wider and socially harmful phenomena, namely the exclusion and increase of inequality. Theoretical and empirical dimension of sustainable development as a phenomenon of the research, the volume of public and private funds allocated to the funding, the scale of the expected impact on the economy and society and the strategic dimension of the concept of being reflected in the public to public policy, which makes this issue require in-depth research and, above all, an analysis for identification reasons, conditions and efficiency of its financing. The legitimacy of research on the financing of sustainable development is determined by the fact that the provision of funding is a prerequisite for the implementation of this concept and has an impact on its results, and effective management of funds directed to the realization of the principles of sustainable development. This determines the efficiency of sustainable development in itself, because it displays the efficiency and effectiveness of spending of funds for this purpose.

Comparing framework financial sector versus sustainable development

An effective financial sector, allocating capital and managing associated risk, is essential for a well-functioning economy. The conventional logic of the financial sector is the one-dimensional goal of maximising profits. The neoclassical approach to finance, based on private property theory, discounts environmental and social considerations. A strict neoclassical finance perspective as advocated by Friedman (1970), Modigliani and Miller (1958), Jensen and Meckling (1976) holds that social responsibility is outside the duties of directors of corporations and should be solely the concern of the government.

The traditional approach to finance based on the efficient market hypothesis and the maximization of cash-flow generating process, tends to neglect an interface between the field and sustainable development ('SD'). Conventional finance protocol offers no room for the environment, society, including employees and other third parties who are not privy to the contract. There is also no room for unselfish and so-called irrational behaviour and related external effects for third parties.

Yet in recent years, there has been an awareness of the need for a multidimensional and holistic understanding of SD. A balance among environmental protection, social equity and economic development deserves to be pursued (Pisano, Martinuzzi, Bruckner, 2012). The approach based on conventional finance fails to be valid as governments decentralise. There is a desire and an expectation that contemporary companies are human agents satisfying economic, environmental and social needs. In line, qualitative factors, including behavioural considerations and

seeking trades – off between expected rate of return and risk impact on financial markets. Sustainable finance ('SF') needs to provide an alternative to the paradigm of shareholders as only stakeholder.

SF should be directed towards ensuring the wellbeing of all stakeholders actors in the short and long terms. One among the major factors of success is taking into account the needs and expectations of the stakeholders (Freeman, 1984; Harrison, Freeman, 1999). Employees, regulators, and society can each have significant impact on the overall performance of a financial system, and should be included (Rebai, Azaiez, Saidane, 2015). Yet according to Pissano et al. (2012), a vast gap remains between SD and the actions of most financial markets (Table 1).

Table 1. Financial sector versus sustainable development

Sustainable development	Financial sector
Balancing SD dimensions: environment preservation, social equity, economic development	One dimensional logic; maximisation of profits and return on investment
Long timeframes and intergenerational equity	Short-term perspective; discounting; present value calculation
Environment preservation, limits to growth, and planetary boundaries	Little to no consideration of environmental effects
Equal opportunities, access, and intra-generational equity	Little to no consideration of social effects
Inclusion and participation	Highly complex; not inclusive, nor open to participation
Governance for SD	Efficiency oriented; shortage of transparency and accountability

Source: Pisano et al. (2012), p. 27.

The challenges include: balancing SD dimensions which are typically long-term focused with the typically short-term profit focus of conventional finance. The difference is crucial for efficiency of financing of SD as there is a need to identify and evaluate negative externalities such as air pollution from industry (Pisano et al., 2012). The emerging field of sustainable funding, largely driven by physicians, provides an opportunity to build a more general theory of finance that takes account of such realities while demonstrating that traditional financial theory is only a case of more general theory (Fullwiler, 2015). Another problem pointed out by Werner (2012) is that, leading economic theories and models, as well as influential advanced textbooks in macroeconomics and monetary economics, did not feature money (Van Egmond, De Vries, 2015).

Efficiency of financing sustainable development

The question of the efficiency of financing sustainable development has not been solved satisfactorily on the basis of the national and international literature. The authors of the studies (inter alia G. Borys, T. Borys, Z. Wysockińska, J. Witkowska, L. Dziawgo, B. Fiedor, L. Mierzejewska, E. Sobczak, B. Guziejewska, M. Burchardt-Dziubińska and others) focus primarily on identifying complex issues relating to sustainable development (inter alia environmental policy and environmental protection, social policy and the issues of exclusion and inequality, sustainable development and the quality of human capital, etc.) from the perspective of the European Union states and local governments or in terms of the sectoral issues (inter alia transport, environment, etc.) or in the context of corporate social responsibility (CSR). Efficiency issues and financing for development are presented in the context of the characteristics of the EU funds aimed at financing sustainable development, or evaluation of projects supporting the objectives of this development and the development usually has the nature of industry reports or case studies. There are also elaborate facts that, in a comprehensive way and on the macro level-without being

able to present the relationship between finance and growth, and development of financial markets and economic growth and development (inter alia S. Owsiak). The issue of the efficiency of financing sustainable development is very rare, and if it is considered, on the occasion of the discussion of financial efficiency of projects, not focusing on the aspect of sustainability is key. Foreign literature shows a wide explanation of the definition, the methodological and conceptual relating wholes to sustainability (inter alia Enders, Remig, 2015; Mawhinney, 2002; Lawn, 2006; Grober, 2015; Jeucken, 2001; Hargreaves, Fink, 2004; Emerson, 2003; Soppe, 2004, and others). The financial aspect focuses primarily on issues in the field of sustainable finance (Soppe, 2004) and environmental finance or impact assessment of the financial system on the growth and development (Arestis, 2006; Wright, 2002; Todaro, Smith, 2012; King, Levine, 1993; Acemoğlu, Johnson, Robinson, 2005 and others) does not have papers, which attributes to the study on the efficiency of financing sustainable development of financial variables affecting this performance.

Finance paradigm towards efficiency of financing sustainable development

The financial sphere and sustainable development are interrelated and collaborative research categories. Sustainable development as an economic category and as a research problem has been widely described in the literature of the subject. Despite numerous publications devoted to this issue, this area of research remains underdeveloped from a definitive point of view, impact assessment, and impact on the economy and stakeholders. This concerns in particular the insufficiently researched issue of sustainable development financing, which on the basis of the current publication acronym focuses on almost exclusively a narrow section, namely the characteristics of the sources of financing. Crisis 2008 has revealed the imperfections of a traditional approach to finance, particularly the mechanisms used so far by financial markets, and has become the impetus for creating new dedicated financial solutions, especially in the context of ensuring long-term financial stability and security. In this context, the role of finances that are sustainable in stabilizing financial markets, after the crisis, appears to be significant.

Effective financing of sustainable development requires a holistic approach in finance, which means the need to include economic and non-economic finance models that correspond to the three dimensions of sustainable development and mapping the links between the financial system, the economy and the state. The three-dimensionality of the sustainable finance model eliminates traditional financial model constraints that result in distorted pricing of risks, costs, capital, and value, influencing individual and institutional motives for financial managers. An additional element that enhances the financial sphere's adaptability to sustainability financing is the inclusion of a behavioral financing model relevant for understanding the motivations of ESG (Environmental, Social, Governance) risk management managers in sustainable risk and risk conditions in the traditional financial model.

Effective financing of sustainable development requires therefore an extension of the perception of the financial system to two of the other dimensions, social and environmental, and thus the design of sustainable financial systems, in line with the sustainable finance paradigm, in harmony with the three dimensions of sustainability. The theoretical achievements in finance are lacking of a comprehensive definitional and methodological approach that allows for in-depth research into the effectiveness of sustainable development financing.

Conclusion

Financing of sustainable development and assessment of efficiency of this financing is an important problem regarding decision-making. Efficiency is a category that can be managed and therefore, defining the efficiency and

its determinants is the premise of priority from the point of view of measures to support the decision-making process in this field and, based on the results given, to control efficiency.

Sustainable development is a special kind of public good whose effective financing is cognitively important because of the social, economic and environmental consequences it determines. Effective financing of public goods, due to their specificity, faces many limitations. In the case of sustainable development, an additional element affecting the efficiency of finalization is the mismatch of the financial sphere to the financing of the specifics of sustainable development.

Regarding the research questions raised in the introduction it is worth mentioning that under the influence of financially sustainable adjustment processes, a new sustainable finance paradigm emerges. Taking into account the economic, social and environmental perspectives that characterize sustainable finance allows for a more appropriate adaptation of the financial sphere to financing requirements determined by the specific nature of sustainable development.

Conventional finance is based on the economic factor in risk, cost and value valuation, which means that this kind of finance does not have the mechanism to fully perceive the three dimensions of sustainable development. This results in an inadequate transfer of risk and capital in the financial system and inefficient financing of development. Increasing in efficiency of sustainable development financing requires a change of the financial paradigm towards sustainable finance and a holistic approach to finance by including in the financial model the noneconomic variables that are representative of the three pillars of sustainable development.

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