

PLEASE NOTE! THIS IS SELF-ARCHIVED VERSION OF THE ORIGINAL ARTICLE

To cite this Article: Karppinen, K. ; Kataja, K. ; Tallgren, T. & Uusitalo, T. (2016) Fostering Business with Efficient Project Management. In. (Anna Swirska & Katarzyna Wasowska, Eds.) Effectiveness of management: micro and macro level, 154-166.

Scientific editing
ANNA ŚWIRSKA
KATARZYNA WĄSOWSKA

EFFECTIVENESS OF MANAGEMENT: MICRO AND MACRO LEVEL



Siedlce University of Natural Sciences and Humanities
Publishing House

Siedlce 2016

Scientific editing:

Ph.D. Anna Świrska, Ph.D. Katarzyna Wąsowska
Siedlce University of Natural Sciences and Humanities, Faculty of Economic and Legal Sciences

Reviewed by:

Prof. dr hab. Aneta Wysokińska-Senkus, War Studies University, Poland
Dr Habil. Judit Sagi, Budapest Business School University of Applied Sciences, Hungary

Text editing: Katarzyna Sarnowska

Proofreading: William O'Sullivan

All laws, inclusive with the right to the reproduction of texts in full or in part in any form – reserved.

Copyright

© Siedlce University of Natural Sciences and Humanities, Siedlce 2016

ISBN 978-83-7051-822-6



This project has been funded with support from the European Commission. This publication reflects the views only the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Siedlce University of Natural Sciences and Humanities Publishing House

Żytnia 17/19, 08-110 Siedlce, Poland

tel. +48 25 643 15 20

wydawnictwo@uph.edu.pl

www.wydawnictwo.uph.edu.pl

Printing and binding: Zapol, Szczecin

CONTENTS

Preface	5
<i>Anna Świrska, Katarzyna Wąsowska</i>	

PART 1

EFFECTIVENESS OF MANAGEMENT AT REGIONAL LEVEL

1. The Balance of Payments as a Tool to Assess the Efficiency of the Country's Foreign Economic Activity.....	9
<i>Natallia Bandarenka</i>	
2. Effectiveness in the management of local government finances.....	22
<i>Monika Wakula</i>	
3. Innovation as a condition of effectiveness of Polish local communities. Case study: Central & East Macro-region of Poland.....	33
<i>Iwona Koza</i>	
4. Public enterprises in Croatia: The difference in effectiveness between public and private companies	54
<i>Karlo Kostanjevec</i>	
5. Multidimensionality of management efficiency – measurement proposal in public administration	68
<i>Beata Detyna, Jerzy Detyna</i>	
6. Oil Saving in Air Transport	80
<i>Katarzyna Wąsowska, Radosław Korneć</i>	
7. The Crossroads of Praxeology in the Second Half of the 20th Century T. Kotarbiński – P. Bourdieu	92
<i>Jerzy Kolarzowski</i>	

PART 2

EFFECTIVE MANAGEMENT IN ORGANIZATION

8. Organizational effectiveness in the new economy –
the theoretical considerations and practical recommendations 105
Adam Skrzypek
9. Measuring the effectiveness of human capital
management in the knowledge-based economy 113
Edyta Bombiak, Anna Świrska
10. Trust and organizational effectiveness..... 125
Anna Pietruszka-Ortyl
11. Efficiency – a key feature of the performance audit. The Romanian experience
of auditing the medical waste management in public hospitals..... 141
Anda Gheorghiu
12. Fostering Business with Efficient Project Management..... 154
Konsta Karppinen, Katja Kataja, Taru Tallgren, Tero Uusitalo
13. Investment project profitability analysis on the example of an investment
in a biogas power plant 167
Agnieszka Przesmycka, Marian Podstawka
14. The market and work conditions under the pressure
of foreign capital. The case of “Biedronka”..... 185
J. Paweł Georgica
15. Foresight as a tool to identify key factors of the level of life quality 200
Marcin Olkiewicz, Benedykt Bober
16. Pipelines, platforms and high performance organisations 215
Ian Hipkin
17. The conundrum of cause-related marketing 226
Alexandra Zbucea
- Bibliography 236**

Preface

*Efficiency is the foundation for survival.
Effectiveness is the foundation for success.*

John C. Maxwell

The XXI century is the time of highly educated employees, who, thanks to effective work in different occupations skillfully interact with other people managing the entrusted resources. In today's rapidly changing environment Managers are faced with new tasks that require mastery of their skills in order to be successful and effective.

Effective management is a field in which changes occur constantly. Therefore, it should be understood as a continuous process that never stops. The key to effective management is permanent awareness of the ceaseless changes, whose scale is the largest in history, and sustainable development in the economy. Due to this new situation, during the last several years, companies introduced changes, both in managerial structures, flattening them and reducing employment, as well as increasing the level of employees' qualifications. As a result the efficiency of work has risen. This, consequently, has required changes in managerial models, tools and methods. In order to face up to current economy challenges there is a need to create management as effective as possible.

Companies acting in the global market have been constantly increasing the role of strategic management mainly to make the appropriate decisions about the company's future position. Tremendous changes in technology also significantly contributed to the effective management of enterprises. With the availability of new technologies, a lot of changes in the structure of the organization were introduced to achieve greater flexibility and to adapt to market trends.

Not only has the private sector experienced the changes that resulted in creating new models of management, but also the public area. The public entities, benchmarked the functioning the private companies have introduced to the New Public Management which allows to convert the administration of public resources to their successful management. Both, at central and local level, managing has become more and more efficient due to the implemented tools and methods.

The purpose of this monograph is to present the most important issues concerning effective management in the private and public sectors as well as to provoke a broad discussion on the problems that faced today's businesses and organizations at regional and local level, starting with the effective management of the organization through financial efficiency and ending with the effective management of human capital.

To accomplish these tasks we invited academics and business representatives from various scientific and practical centres. The book *Effectiveness of management: micro and macro level*, as the result of this collaboration and cooperation, presents a fairly broad overview of current issues related to effective management.

This book consists of two major parts: Effectiveness of management at regional level and Effective management in organization. The first part of the book allows to examine how effective the management can be at local level or in public entities. It presents the results of scientific research as well as the theoretical assumptions on it. The second part describes the effectiveness in the organization as an entity, where the human research management plays a crucial role. In this part the reader may find the proposals of methods and measures essential to better management in private companies.

However, analysis of the above mentioned issues does not exhaust all methods and solutions for effective management in a currently changeable environment. We believe that this book is a good beginning for further consideration of the issues presented.

We are honoured to express particular words of acknowledgement and are profoundly grateful to all co-authors and those that reviewed the book for their effort and contribution towards this international publication.

*Anna Świrska
Katarzyna Wąsowska*

Part 1.

**EFFECTIVENESS OF MANAGEMENT
AT REGIONAL LEVEL**

Natallia Bandarenka¹

1. The Balance of Payments as a Tool to Assess the Efficiency of the Country's Foreign Economic Activity

1.1. Introduction

Today the assessment of the efficiency of the country's foreign economic activity is actual for many countries of the world. Theoretically the concept of foreign economic activity is based on a category of international economic relations. According to this concept the main forms of external economic cooperation are:

- trade cooperation (includes different forms of international trade not only in goods and services, but also in intellectual property, information);
- monetary cooperation (including banking operations, crediting, insurance);
- investment cooperation (business, real estate, investment of capital into securities, etc.);
- production cooperation (joint business, franchizing, cooperation, etc.);
- scientific and technical cooperation (joint scientific projects, implementation of research and development operations, exchange of knowledge and technologies, etc.).

Therefore, increasing the efficiency of the country's foreign economic activity is achieved not by one direction in the sphere of the international cooperation but a whole set of them.

The results of the country's foreign economic activity and sources of its financing are displayed in the balance of payments.

The balance of payments is an important tool of macroeconomic analysis and forecasting. Balance of payments data reflect the development of foreign trade for a reported period. It reflects development of other foreign economic activities which influences the exchange rate of the national currency, the level of production, employment and consumption. It reflects in what forms and volumes foreign investments were carried out, whether the repayment of the country's external debt was done in due time, etc.

In other words, changes of a state's separate item of the balance of

¹ Ph. D., State Institute of Management and Social Technologies of the Belarusian State University, bondata@mail.ru

payments reflect the principal tendencies of the economic development of the country. It allows one to judge the efficiency of the foreign economic activity and serves as an important source of the information for decision-making in the field of the state economic policy.

From a practical and analytical point of view the most important part of the balance of payments is the current account balance which includes operations in goods, services and also the movement of primary and secondary income. The analysis of the current account can be supplemented by the analysis of capital and financial accounts as well as the overall result of the work of the national economy which is characterized by the balance of payments as a whole.

1.2. The analysis of the current operations in goods and services in the Republic of Belarus for 2009-2014

International trade plays a leading role in the foreign economic activity. Today the following tendencies in the modern world trade are: the advancing growth rates of trade in services, increase in export-import transactions of a share of finished goods in comparison to a raw materials share, etc. At the same time the country's export growth proportionally increases the cumulative expenditures of the national economy and volume of the gross domestic product. Import purchase is followed by the growth of costs for foreign goods and services. Therefore, the balance of the foreign trade of the country depends directly on dynamics of the gross domestic product in the countries which are trade partners and depends inversely on dynamics of the national GDP volume. Besides, the competitiveness of the foreign trade reflecting an economy involvement level into world economic communications is one of the most often used indices of the general competitiveness of all countries.

For the Republic of Belarus, export earnings are the main resource of receipt of foreign currency to the country. Meanwhile, in recent years, only in 2012 the balance of goods had positive value (Table 1.1).

The critical level of the negative trade balance in 2010 led to the currency crisis of 2011 and resulted in devaluation of the Belarusian ruble. The positive effect of the Belarusian national currency devaluation was expressed in stimulating export and the considerable shortage of the negative balance in goods trade. Thus, according to the results of 2011 the export of the country increased in comparison to the crisis 2010 by 67%, while the growth of the import of goods reached only 31%. It allowed reducing the negative trade balance to 3.5 billion US dollars and in 2012t even had a positive result.

In 2012 the export of goods was 45.4 million dollars (72% of GDP) which

exceeded the value of 2011 by 11.2%. Thus, the physical volume of export was increased by 10.6% at constant average prices. 13.2% of the growth of the Belarusian export in 2012 is created by the increase of cost volumes of mineral products deliveries (which occupy 31.6% of the total exports), 15.7% – by the increase in the production of the chemical industry (share in the total export is 16.6%), and 23% – by the growth of agricultural production and food cost (share in export is 10.6%). In this case, the volumes of import of the mineral products which occupy about 40% of the total Belarusian import, decreased in 2012 in comparison with 2011 by 4.1%².

Table 1.1
The current account balance of the Republic of Belarus for 2009-2014

Items	2009	2010	2011	2012	2013	2014
The current account balance:						
Million dollars	-6 132.6	-8 280.1	-5 052.5	-1 862.2	-7 567.3	-5 094.0
As a percent of GDP (%)	-12.5%	-15.0%	-8.6%	-2.9%	-10.4%	-6.7%
<i>Balance of goods, million dollars, including</i>						
Export of goods	20 595.4	24 506.1	40 927.6	45 574.3	36 540.1	35 735.8
Import of goods	27 700.3	33 794.8	44 394.4	45 008.9	41 133.5	38 334.2
<i>Balance of services, including:</i>						
Export of services	3714.9	4 795.6	5 609.5	6 311.7	7 506.0	7 819.8
Import of services	2 218.0	3 007.0	3 351.6	4 043.1	5 253.5	5 620.9

Source: own study based on *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

In general, during the period under review the export of goods increased by 1.7 times, 2.4 times compared to 2005. It is based on mineral products (40%), foodstuff and agricultural raw materials (15%), production of the chemical industry (12%), machinery and equipment (7%)³.

According to the National statistical committee of the Republic of Belarus in 2014, the export of Belarusian goods was delivered to the markets of 161 states. At the same time 42.2% of Belarusian export goes to Russia

² The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

³ Motorina O. The State of the Economy of Belarus According to the Balance of Payments. Magazine Bank Bulletin, Minsk, 2015, p.4

(generally foodstuff and agricultural raw materials (29.8%), vehicles, machines and equipment (25.3%)). About 30% of the total amount of export of goods was delivered to EU countries; at the same time the share of mineral products in export to these countries made 68.8%⁴.

For many years the main reason for a negative foreign trade balance was the import of intermediate goods, the escalating cost of which is a serious problem for ensuring effective functioning of the real sector in the Republic of Belarus (Table 1.2).

Table 1.2

The structure of the import of goods in the Republic of Belarus for the period from 2009 to 2014 by grouping of goods (%)

Items	2009	2010	2011	2012	2013	2014
Import of goods, including:	100.0	100.0	100.0	100.0	100.0	100.0
- consumer goods	16.1	16.1	15.4	13.1	17.8	20.1
- investment goods	9.9	10.0	8.7	10.5	12.4	12.1
- intermediate goods	72.9	72.9	75.2	75.1	68.8	66.6
share of power goods in the total value of the intermedia goods	39.6	34.7	42.0	39.5	30.2	35.6
- other goods	1.1	1.0	0.7	1.2	1.0	1.2

Source: own study based on *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

The high specific weight of intermediate goods in the Belarusian import is caused, first of all, by dependence on domestic production from foreign sources of fuel and the majority of types of industrial raw materials. It is also created by the necessity of receiving semi-finished products and components for finishing productions from the outside. The specifics of the commodity structure of Belarus, which does not have its energy resources, influence the fact that about 40% of the total volume of intermediate goods is the share of energy carriers. In turn, the main components in a group of energy carriers are crude oil and natural gas which totally arrive from Russia.

The negative balance of the external economic operations with goods is leveled by the positive balance under the article "services" (Table 1.1). The service trade compensates for the deficiency of the trade in goods by approximately a quarter. In other words, the active result in the balance of services supplements the currency means earned by the export of goods that, in turn, reduces the need for research of the means lacking to cover import expenses.

During the analyzed period the positive balance of the international

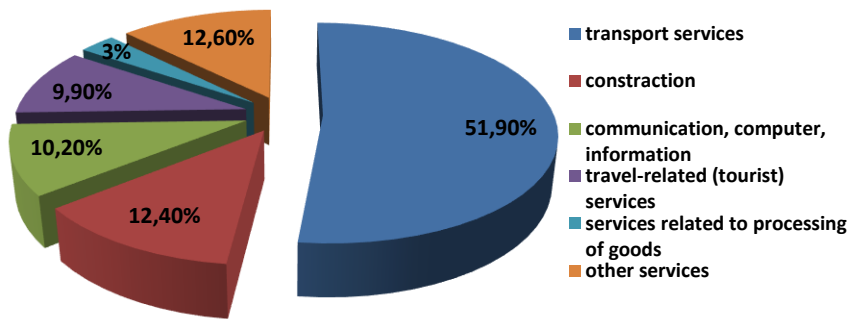
⁴ Ibidem.

trade in services increased almost one and a half times (from 1496.9 million dollars in 2009 to 2 176.7 million dollars in 2014).

The main types of services providing an active balance are transport services (Figure 1.1). Belarus possesses a high transit potential and Belarusian partners actively use it for external relations: the share of the transport services accounts for almost half of the total volume of the Belarusian export of services. At the same time the share of the transport services in world export of services makes only 20.2%, and in export of the CIS countries it is 36.6%⁵.

Figure 1.1

The structure of the export in services of the Republic of Belarus in 2014



Source: own study based on *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

More than 90% of the net earnings of transport services provide freight transportation by rail transport, motor transport and pipeline transportation. Only with air transportation the opposite situation is observed: the greatest share of proceeds from export is the share of passenger traffic and rendering support services.

As opposed to an active balance under the article "transport services" in the balance of payments of the Republic of Belarus the balance under the article "trips" has traditionally a negative value. Expenditure abroad by the resident of the country systematically exceed the return payments from abroad that leads to an additional expenditure of freely convertible currency⁶. Another type of service the import of which considerably exceeds its export, is the

⁵ Balashevich M, Kudzevich D. The International Trade in Services of the Republic of Belarus in the Context of Association to the WTO // Belarusian Economic Magazine, Minsk, 2014, p.1

⁶ Borisov S. The balance of Payments of Belarus. Magazine Money and the Credit, Minsk, 2010, no. 8.

construction service. In 2014 there was a significant construction services import growth in comparison to the previous year (20.6%).

Thus, a peculiar feature of the Republic of Belarus in the service sector is the fact that labour-consuming services are mainly developed in the country: transport (generally cargo transportation), services in oil refining, etc. At the same time the growth of the capital-intensive and high-tech services developed in the European countries (credit and financial, insurance, consulting, scientific and technical, etc.) lags considerably behind. It is created by the imperfection of the necessary infrastructure, lack of financing, lack of skills to sales of research products on foreign markets, etc.

1.3. The tendency of primary income and secondary income in the Republic of Belarus for 2009-2014

Besides the external economic operations with goods and services, operations with primary and secondary income also belong to the current account balance of the balance of payments. These operations include the compensation employees received from abroad (or paid to abroad), the investment income from all types of investments, and also current transfers.

In recent years the negative balance both under the article primary income, and under the article secondary income is characteristic for the Republic of Belarus (Table 1.3).

Table 1.3

Primary income and secondary income in the Republic of Belarus for the period from 2009 to 2014 (million dollars)

Items	2009	2010	2011	2012	2013	2014
<i>Balance on primary income, including:</i>	-1113.9	-1162.8	-1361.4	-14733.0	-2684.8	-2398.9
- compensation of employee	92.7	341.4	482.7	578.7	568.9	650.3
- investment income	-1206.6	-1504.2	-1844.1	-2052.0	-3310.0	-3094.1
<i>Balance on secondary income, including:</i>	242.0	343.7	-2240.9	-3223.0	-2576.1	-2295.6
- general government sector	91.7	164.9	-2755.1	-3458.6	-3004.4	-2621.0
- other sectors	150.3	178.8	514.2	235.6	428.3	325.4

Source: own study based on *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

The balance of primary income is formed negatively as a result of the excess of net payments of the investment income over the net inflow of the income from temporary employees. The negative size of the balance under the article "investment income" is caused, mostly, by payments for the credits of the government sector, corporations sector and banking sector of the economy. In other words, it is payments to nonresidents for the investments earlier invested into the economy of the Republic of Belarus and also cancellation of earlier taken credits and loans. Thus, the greatest influence on the size and orientation of the flows of the investment income renders the income from direct investments. It should be noted that payment to nonresidents of the investment income is the most important type of the movement of cost from the country. Unlike the export of the capital which was earlier imported by nonresidents into the country, the extracted size of profit, percent and dividends represent part of the gross domestic product created in the country. In other words, the attraction of foreign investments is effective for the country only in the case it exceeds the export of the income from it or slightly concedes to it (in crisis years).

Except the investment income the income from rents, the income from work of temporary employees abroad, the item "investment income" also includes the percent connected to debt servicing of the country the share of which considerably increased in recent years. So, for the period from January to September 2010 the share of percent in the investment income to payment made 30%; for the period from January to September 2014 their amount increased 2.5 times and made already more than 38% of the volume of the investment income calculated in payment⁷. At the same time the share of the reinvested income fell (by 27% in 2014 in comparison to 2013) that demonstrates the unwillingness of investors to develop business in Belarus.

Untill 2011 the positive balance on secondary income was formed generally due to receipts from the payment of taxes, penalties and other payments by nonresidents and also due to receiving money transfers from abroad by actual residents of the Republic of Belarus (Table 1.3). And more than half of the total amount of the money transfers was received from the Russian Federation. Since 2011 the negative balance on secondary income to the greatest measure is formed due to the payments of current transfers by the Government of the Republic of Belarus within distribution of the import customs duties between the member states of the Customs Union, and also within the bilateral agreement on the payment of the import customs duties on oil products in favour of Russia.

⁷ Motorina O. The State of the Economy of Belarus According to the Balance of Payments. Magazine Bank Bulletin, Minsk, 2015, no. 4.

The total value of the balance of the external economic operations with goods, services, primary and secondary income forms a current account balance which has a paramount analytical value. It is often interpreted as the balance of real economic value exchange between residents of the country and the rest of the world. The positive balance of the current operations (surplus) means that in the reporting period residents of this country provided for nonresidents of real economic values more than nonresidents did for themselves (and vice versa). In other words, this indicator reflects the difference between the outflow of values abroad and their inflow to the country in addition to the gross domestic product, and shows whether the country lives "according to the income".

The negative current account balance is common for the Republic of Belarus (Table 1.1). In the history of the balance of payments in Belarus only in 2005 the balance of the current operations had positive value. Considerable deficiency of the current operations (during the separate periods reaching 15% of gross domestic product) is caused by the domination of expenses on import, the expenses connected with the activity of the enterprises with direct foreign investments, and also payments on service of an external debt in the structure of payments for the current operations.

The country is considered to be "a debtor" to other countries of the world in the case of a negative current account balance of the balance of payment. At the same time the negative value of the current operations balance is a widespread phenomenon observed in many countries of the world. Thus, according to the IMF for 2013, the current account balance was negative in 79 countries from the 123 which provided information on the balance of payments. The current operations of Great Britain and the USA had the greatest negative value. Besides, this list includes Poland, Belgium, France, the Czech Republic, Finland⁸.

However, the size of the deficit of the current operations disturbs the Republic of Belarus more than the existence of it. According to the international standards the deficit of the current operations to the amount of 3% of GDP of the country is critical which is much less than the actual value of the balance of payments of Belarus (Table 1.1). It demonstrates the existence of a serious problem of shortage of financial means in the country.

⁸ Motorina O. The State of the Economy of Belarus According to the Balance of Payments. Magazine Bank Bulletin, Minsk, 2015, no. 4.

1.4. The analysis of the financial operations in the balance of payments of the Republic of Belarus for 2009-2014.

The financial account of the balance of payments reflects capital inflow and outflow of direct investment, portfolio investment and other investment, operations with derivative and also an increase (or reduction) of the international reserve assets of the country (Table 1.4).

Table 1.4

The financial account balance of the Republic of Belarus for 2009-2014 (analytical presentation, USD mln)

Items	2009	2010	2011	2012	2013	2014
<i>Net lending (+) / net borrowing (-)</i>	-5 699.0	-7 575.0	-4 014.0	-961.2	-8 492.3	-5 670.7
Direct investment	-1 774.2	-1 342.8	-3 876.9	-1 308.1	-1 983.9	-1 788.6
Portfolio investment	18.8	-1 185.6	-854.1	191.0	59.1	19.6
Financial derivatives	0.0	0.0	594.6	-51.2	-0.8	29.6
Other investment	6 348.9	-4 238.1	-2 668.2	126.1	-5 709.3	-2 521.0

Source: own study based on *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

According to Table 1.4 the greatest volume of funds comes to the country under such articles as "direct investment" and "other investment".

Throughout the studied period the direct investment balance has a negative sign that specifies exceeding direct investments inflow in the country over the investment directed by Belarusian residents abroad.

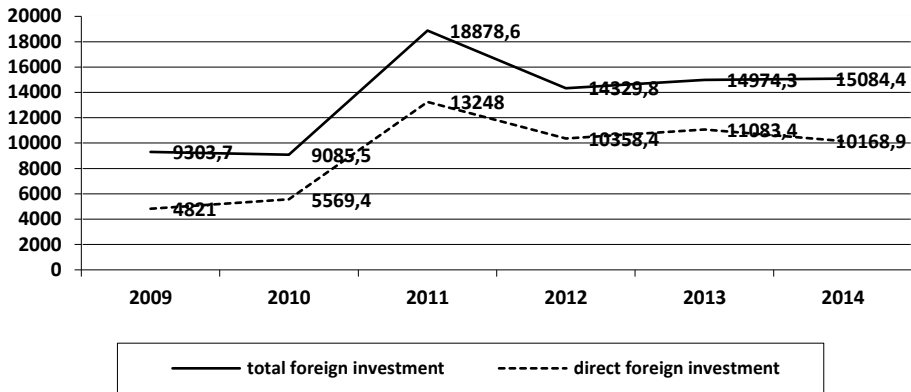
According to the National Statistical Committee of the Republic of Belarus the inflow of foreign investment to the country for the period from 2009 to 2014 has grown 1.6 times (from 9303.7 million US dollars in 2009 to 15084.4,8 million dollars in 2014) (Figure 1.2).

A sharp surge of foreign investments inflow is marked in 2011 when investments increased by 3 times compared to the previous year. The reason for this was the November 2011 deal to sell 50% of stocks of the Belarusian company "Beltransgaz" to the Russian company "Gazprom" for the amount of 2.5 billion USD.

At the same time there is a tendency of slowing growth in attracting investments into the country in recent years. In 2014 the inflow of direct foreign investment to the Republic of Belarus (taking into account outflow)

decreased by 18,4% in comparison to the previous period⁹. Moreover, the principal amount of the investments in the economy was the reinvested profit of Belarusian non-financial institutions rather than financing new investment projects.

Figure 1.2
Gross inflow of foreign investment into the Republic of Belarus for the period from 2009 to 2014 (million dollars)



Source: own study based on *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015

The negative fact is the decrease in the proportion of foreign investment to the value of GDP. In 2002 the volume of all arrived investment made only 4.9% of the gross domestic product; in 2012 it grew to 22.6% but it decreased to 19.9% in 2014. Also, there is a tendency in lowering the specific weight of direct investments in their total amount (from 74% in 2013 to 67.4% in 2014)¹⁰.

Operations with portfolio investments and derivatives in the financial account of the Republic of Belarus occupy an insignificant volume (Table 1.4). On the one hand, it indicates the backwardness of the Belarusian financial market that is an essential deficiency. On the other hand, economy analysts agree with the opinion that excessive concentration of financial means in the form of derivatives promotes instability in the country that was clearly demonstrated by the financial crisis of 2008. The financial means in the form

⁹ The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

¹⁰ Bandarenka N. Foreign Investments in Belarus: Trends and Challenges // Successful Management in Crunch Time. Scientific Editing: J.S. Kardas, A. Świrska. Siedlce, 2014, 312 pp. 275-287.

of portfolio investments and derivative "run away" from the country in the case of the slightest danger, worsens the situation in the financial market of the country¹¹.

The item "other investment" primarily reflects the movement of loan capital or operations on loans in various forms. The "minus" under this item means cash inflow into the country and the "plus" sign means outflow. The data in Table 1.4 shows significant revenue credit in the country which in turn has a significant impact on the formation of the external debt because funds coming under "other investments" have to be repaid with interest.

The increase of the external loans has had a negative impact on the debt stability of the Republic of Belarus in recent years. The Concept of the National Security of the Republic of Belarus approved the following threshold indicator values of external debt sustainability:

- gross external debt should not exceed 55% of GDP;
- gross external debt should not exceed 100% of the export;
- share of short-term external debt in the gross debt should be less than 50%;
- external public debt should not exceed 25% of GDP;
- external debt servicing should not exceed 10% of foreign exchange earnings.

The actual indicators of the country's external debt are not, in recent years, always in admissible boundaries (Table 1.5).

Table 1.5
Relative parameters of the Republic of Belarus Gross External debt for 2012-2015

Indicators	01.01.2012	01.01.2013	01.01.2014	01.01.2015
Gross external debt/GDP, percent	57.9	53.2	55.5	52.7
Long-term borrowing/gross external debt, percent	57.5	62.1	60.5	67.3
Gross external debt/export of goods and services, percent	73.1	65.1	90.3	92.4
External debt of General Government/GDP, percent	21.0	19.8	18.3	17.3
External debt service/export of goods and services, percent	13.8	16.3	14.6	25.6

Source: own study based on *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

¹¹ Motorina O. The State of the Economy of Belarus According to the Balance of Payments. Magazine Bank Bulletin, Minsk, 2015, no. 4.

Thus, according to the National Bank of the Republic of Belarus for January 1, 2014 the relation of the gross external debt to the gross domestic product exceeded the highest permitted level of 55%, as well as for the beginning of 2012 (compared to the beginning of 2006 this ratio made 17% of GDP)¹². The relation of the gross external debt to export also approached the critical level of 100% (for the beginning of 2015 it reached 92.4%). However, particular concern is caused by an index of the country's external debt service which gives an idea of what part of export earnings of the country will be used for the service of external debt. Therefore, it reflects how sensitive repayment of debt service obligations to an unexpected reduction in export earnings is.

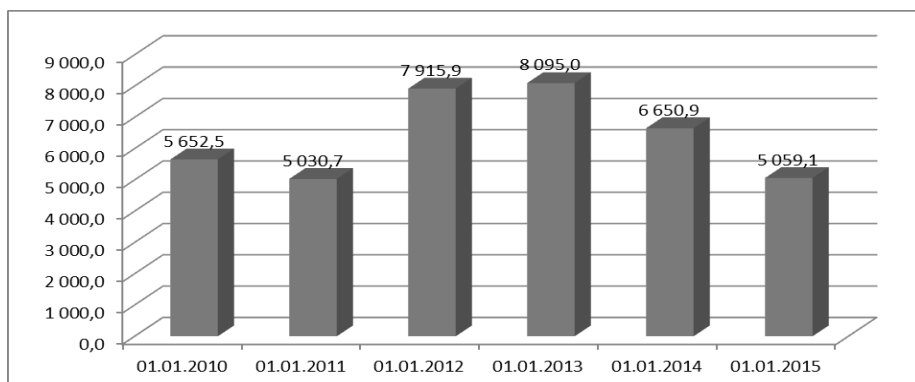
For the analyzed period the external debt service was 13-15% of export and at the beginning of 2015 was more than 25% while according to the Concept of National Security of the Republic of Belarus the expenditures on the external debt servicing shall not exceed 10% of export earnings. Exceeding this critical limit means that practically all export earnings in hard currency are sent for the repayment of previously obtained loans and interest on them and payment of the current import requires attracting new loans. In other words, further economic growth is impossible when a certain limit is achieved.

The alarm is also caused by lowering volumes of the international reserve assets of Belarus which is also reflected in the balance of payments. In recent years the country's reserve assets were reduced both in absolute terms (Figure 1.3), and relative terms (in months of import of goods and services). Thus, according to January 1, 2015, the reserve assets of the Republic of Belarus reached 5059.1 million US dollars that is comparable to the cost of import of goods and services of the country in 1.4 months. It is twice less than the internationally accepted level of reserve assets equal to a 3-month volume of import of goods and services.

Thus, lowering reserve assets volumes with the simultaneous growth of the external debt and major deficit on the current operations testifies to a low performance of the foreign economic activity of the Republic of Belarus.

¹² Motorina O. The State of the Economy of Belarus According to the Balance of Payments. Magazine Bank Bulletin, Minsk, 2015, no. 4.

Figure 1.3
The international reserve assets of the Republic of Belarus for 2010 to 2015 (million dollars)



Source: own study based on *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk, 2015.

1.5. Concluding remarks

Thus, the Republic of Belarus is among the countries where the financial inflows connected with the service of foreign trade predominate in a payment turn of the country while other operations take minor positions. In addition, for many years, in the structure of the foreign trade balance, the main deficiency is formed by operations with intermediate goods. The material capacity of Belarusian production still remains high [5]. For this reason extensive accumulation of the industrial capacity of the country in the conditions of high dependence of the economy of Belarus on import of intermediate goods and the escalating cost of import energy carriers creates problems with the realization of such production and ensuring a positive balance of foreign trade.

At the same time, along with high dependence on import of energy carriers and many types of raw materials, the production sphere traditionally is considerably focused on deliveries outside the borders of Belarus. In other words, the development of the national economy of the Republic of Belarus is predetermined by two factors: on the one hand, availability of the foreign markets to the sale of Belarusian production; on the other hand – optimum ensuring needs for fuel and raw materials for its production. They both reflect a condition of the trade balance of the country which state not only influences formation of the whole balance of payments, but also on the monetary positions of the country. The decisive influence of the trade balance on a monetary situation testifies to the rate of the current account balances in

most cases used to characterize the balance of payments as a whole, is always the same in the indication and almost identical to the trade balance in the volume¹³.

It is obvious that the income from foreign trade of the Republic of Belarus significantly depends on the economic situation of Russia as the main foreign trade partner. According to experts the Russian economy is expected to have a sharp decline due to the fall in oil prices, as well as the introduction of international sanctions in the coming years¹⁴. Taken this into consideration, Belarus is supposed to meet considerable difficulties in the implementation of export goods and attraction of foreign investments to the country.

Besides, the existence of a negative current operations balance means that the country cannot do without the attraction of external resources which are necessary for covering the deficit of the balance of payments and financing economic growth. Permanently increasing the size of external borrowing in the presence of inefficient economic management will only worsen the situation in the national economy. According to experts, the attraction of currency in the form of share capital on condition of the implementation of such investments into effective projects can become one of the possible solutions to this problem.

Monika Wakuła¹⁵

2. Effectiveness in the management of local government finances

2.1. Introduction

The subject of rationality and effectiveness of public finance expenditure by the state and units of territorial self-government aiming at carrying out set tasks is very stressed nowadays. It results from the fact that the level and structure of public spending are strictly connected with the financial condition of the state and affect the level of public deficit.

The lack of financial means for the execution of tasks set to local

¹³ Borisov S. *The balance of Payments of Belarus*. Magazine Money and the Credit, Minsk, 2010, no. 8.

¹⁴ Motorina O. *The State of the Economy of Belarus According to the Balance of Payments*. Magazine Bank Bulletin, Minsk, 2015, no. 4.

¹⁵ Ph. D., Siedlce University of Natural Sciences and Humanities, Poland, monikawakula@uph.edu.pl

governments forces their authorities to manage available public resources in such a way so as to achieve the biggest effects taking into account available expenditure. Managing public funds is exposed to evaluation both in terms of quality and effectiveness by the community burdened with public levies. To make the evaluation and verification objective, appropriate methods and tools for the measurement should be applied.

2.2. The core of the management of commune finance

The management of the finance of a unit of a local government is a part of managing the whole unit. Traditionally, management is considered as a process consisting of planning, organizing, conducting and controlling. This approach is the basis for treating it as a process, i.e. a sequence of useful activities characterised by their particular effectiveness as well as rationality aiming at, from a society point of view, a beneficial way of spending public resources.

Managing local finance is a very wide concept and due to that, requires to be defined. A financial potential combined with the proper finance management is the condition for the appropriate functioning and development of units of territorial government. The most important factors for a rational management of local finance are: expenditure and its structure, priorities of developmental projects, obtaining funds aimed at fulfilling tasks and undertakings as well as prioritizing them. Local finance is the area where all the consequences of improper management are clearly noticeable¹⁶.

In the process of management, finance allows us to provide answers to a number of questions:

- What level of a commune development can be achieved, taking into account all the provided goods and services?
- What specific assets can be maintained, and what new ones can be obtained?
- What is the total value of the capital that has to be used to fulfill tasks set by units of territorial governments?
- What funds should be obtained to fulfil the set goal?

The process of managing local finance is actually the process of making decisions concerning:

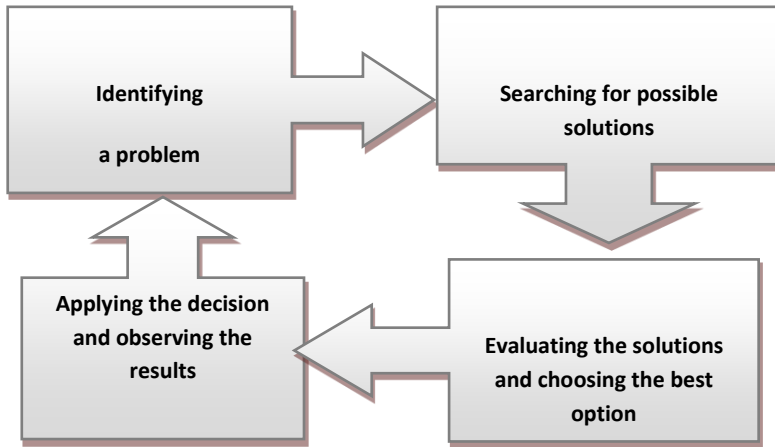
- management of the collection of the funds
- management of the ways of using available resources.

While taking decisions, it is necessary to use appropriate analytical tools and numerous financial instruments. To eliminate wrong financial decisions,

¹⁶ A. Kożuch, *Zmiany w zarządzaniu finansami lokalnymi*, *Ekonomika i Organizacja Gospodarki Żywnościowej*, SGGW, Warszawa 2008, nr 65, p. 122.

we can follow a rational model of making decisions (Figure 2.1). The model assumes that the most effective decisions are the result of applying a four-stage process of analysing the situation: working out alternatives of solutions, evaluating each possibility and choosing the best option, then applying the decision and observing the results¹⁷.

Fig. 2.1
Rational model of making decisions



Source: J.A.F. Stoner, R.E. Freeman, D.R Gilbert, Jr., *Kierowanie*, PWE, Warszawa 1999, p. 249.

The process of making decisions depends on economic and social factors, which determine the needs of the local community, on the resources available in a commune as well as on the organisational structure of local authorities which in turn is dependent on legal regulations.

Taking everything above into consideration, it can be stated that the main areas of finance management include:

- determining the size and structure of budgetary income by defining ways and sources of obtaining it,
- determining the size and structure of expenditure connected with conducted current and investment activities,
- determining relations between income and budgetary expenditure ensuring the maintenance of an economic and financial balance.

The subject literature indicates two models of finance management: a traditional model and an active one. Funds and providing units of territorial government with rules, processes and information necessary to ensure efficient and effective ways of using the resources and meeting legal

¹⁷ J.A.F. Stoner, R.E. Freeman, D.R Gilbert, Jr., *Kierowanie*, PWE, Warszawa 1999, p. 238.

requirements connected with the area of financial decisions are the core of the traditional model. It is also based on a one-year budget structure and one-year reporting. The model of active finance management looks at the process of finance management in a complex way and includes the total process of collecting and spending funds, and making decisions within the scope. It applies modern methods of budgetary procedure. In the model, budget income and expenditure are developed in a yearly and long-term cycle considering the calculation of costs and benefits with the use of strategic instruments of unit management.

Polish local governments, while managing finance, use the model similar to the administrative one with a few elements of strategic management. The model is evaluated as a negative one, taking into account an effective use of available resources and the goals achieved. More and more territorial governments are trying to include new mechanisms in the management process aimed at the rationalisation of the financial economy.

2.3. Effectiveness and its measurement barriers in units of local government

As far as the general economic understanding of effectiveness is concerned, it means optimization of relations between the expenditure and the effect. Such a definition of effectiveness is difficult to be linked to the activities of the public sector. The effect is connected with the goal of the steps taken, which will enforce qualitative or a quantitative approach to the measurement¹⁸.

The effectiveness of finances treated as a collection of economic relations in a form of cash flow between participants of a business activity greatly depends on the appropriateness of choice and correctness of the structure of financial instruments by means of which procedures, measurement processes and the exchange of produced goods and services are carried out¹⁹.

Subject literature emphasises that an important factor influencing the effectiveness of public finance including those of local governments is expenses²⁰. That is the reason why the definition of the effectiveness of the

¹⁸ B. Filipiak, *Efektywność w zarządzaniu finansami samorządowymi. Skutek kryzysu czy obiektywna konieczność?* Zeszyty Naukowe, Polskie Towarzystwo Ekonomiczne, Kraków 2011, p. 223.

¹⁹ H. Sochacka-Krysiak, *Niektóre problemy efektywności w gospodarce finansowej samorządu terytorialnego* [in:] S. Wieteska, M. Wypych (ed.) *W poszukiwaniu efektywności finansów publicznych*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2009, p. 192.

²⁰ S. Owsiak, *Programowanie budżetowe warunkiem racjonalizacji wydatków publicznych*, „Kontrola Państwowa” 2004, nr 1 specjalny, NIK, Warszawa, p.6; E. Kronberger-Sokołowska *Absorpcja środków Unii Europejskiej a racjonalizacja wydatków publicznych*, [in:] J. Głuchowski A. Pomorska, J. Szolno-Koguc (ed.) *Ekonomiczne i prawne problemy racjonalizacji wydatków publicznych*, UMCS, Lublin, p. 161.

system of finances suggested by B. Guziejewska may be appropriate. According to it, effectiveness means the condition in which public expenditure is shaped in such a way to achieve maximum social usefulness at a given level²¹.

Another factor increasing the effectiveness of local government finances is decentralisation. Patrzalek indicates the fact that collecting and spending public funds is more effective when administrators of the funds are more closely connected with local and regional communities²².

The effectiveness of public finances can be discussed when it is possible to determine expenditure and effects in a precise way, which is almost impossible to do in the sector of public finances. It results from the following points²³:

–difficulty or impossibility to determine the results of some of the spending particularly in a short period of time (f.e. expenses on national defense). Verification of the expenditure may be provided only in special situations, i.e. when a particular occurrence takes place,

–difficulty to establish a relationship between the level and the structure of public expenses and actual costs borne by the economy and society as a result of the spending.

The problem exists in education and health service. There aren't any problems to determine the relation between the amount of expenses and the number of services, f.e. the number of university graduates. However, it is more difficult to assess the relation between the expenditure and the level of knowledge of graduates.

A significant problem limiting the measurement of effectiveness is the lack of a theoretically established model level of goods and services provided by the territorial sector, which could be considered 100% effective at a particular level of expenses.

Another obstacle in measuring the effectiveness of territorial finances is the valuation of effects. The problem concerns prices that should be taken into the valuation as market prices for providing goods and services, are not always applied. Using different prices from the market ones precludes the measurement because they will not reflect the actual costs of producing particular goods or services.

²¹ B. Guziejewska, *Efektywność finansów samorządu terytorialnego*, „Gospodarka Narodowa”, 2008 nr 5-6, p. 71.

²² L. Patrzalek, *Finanse samorządu terytorialnego*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2010, p. 60.

²³ G. Kozuń-Cieślak, *Mierzenie wyników aktywności sektora publicznego – podejście teoretyczne*, [in:] B. Filipiak (ed.) *Ekonomiczne i organizacyjne instrumenty wspierania rozwoju lokalnego i regionalnego*, Zeszyty Naukowe No. 500, Uniwersytet Szczeciński, Szczecin 2008, p. 350.

2.4. Directions of the measurement of finance effectiveness in the territorial sector

The directions of spending public funds depend on the policy executed by the authorities of a self-governing unit. The core of public expenses is to fulfill the needs of the territorial community as well as to provide the proper development of a unit. The measurement of public expenses, including self-governing ones, is necessary due to the following reasons:

- the pool of public expenses is always limited by legal and macroeconomic factors. It means that all expenses are competitive with one another, thus each decision to spend a sum of money from the public revenue on a particular aim, automatically limits other expenses,
- not all expenses in areas regarded as key ones, lead to the improvement of the quality and accessibility of services provided by public institutions. The easiest way to eliminate such type of spending is to follow the rule, that justification of expenses should be provided in the form of pointing out rational effects, possible to observe by the recipient of these services.

Taking into account the activities of the local government sector, it is noticeable that there are easier and more difficult tasks to measure. We should not follow the pressure of ‘common immeasurability of public services and the effects of public expenses’²⁴.

The effectiveness of public finance including territorial ones can be measured at two levels:

- the macroeconomic level – looking for relations between the amount and structure of expenses and basic macroeconomic measures. The effects of public expenses are reflected by such indicators as: economic growth, inflation, unemployment²⁵,
- the microeconomic level – consisting of subject and object analysis. The former focuses on the way public funds are spent by particular administrators, whereas in the latter, the analysis concentrates on the amount and structure of public expenses. The achieved results of both analyses will allow us to determine whether the obtained public resources were used effectively by a particular administrator or a unit of the sector of a local government.

A new model of public management that is being introduced into the activity of the sector of public finance indicates the need to measure the

²⁴ W. Misiąg, *Mierzenie zadań publicznych jako podstawa planowania budżetowego*, [in:] Gluchowski J., Pomorska A., Szołno-Koguc J. (ed.) *Ekonomiczne i prawne problemy racjonalizacji wydatków publicznych*, UMCS, Lublin, p. 154.

²⁵ J. Tomkiewicz, *Jak mierzyć efektywność wydatków publicznych?*, „MBA”2003, nr 1, p. 38.

effectiveness of public finance, including the territorial one. Applying this model aims at guaranteeing economy effectiveness, efficiency of public organizations, the improvement of provided services and their better suitability to diverse and changeable social needs²⁶. The new model of public management shows the necessity to elaborate and use clearly set standards and measurements of activities and tasks execution as well as to use control tools. Thus, it is necessary, not only to make measurements but also to conduct the evaluation of their results. It forms the basis for the results evaluation, which can be connected with the effectiveness and efficiency of the actions taken. New public management promotes the idea of the 3 E's: economy, efficiency and effectiveness²⁷.

The challenge to measure the effectiveness of public finance was also taken up by a legislator on the basis of the concept of the new public management described above. On the one hand, he introduces instruments aimed at making measurements, on the other hand the legislator applies systemic and pro-effective solutions whose goal is to maximize the effects. In the Act on Public Finance of 27 August 2009²⁸, a rule of effectiveness of spending available public finance was kept. Art. 44 of the Act indicates that public expenditure should be done in a deliberate and economical way, taking into account the rules of achieving the best results from the conducted spending, an optimal choice of methods and means to achieve previously set goals as well as the amount and dates resulting from cash liabilities²⁹.

The legal act indicates the following instruments aimed at the measurement and growth of effectiveness:

- task budgeting,
- long-term financial planning (a long-term financial plan of the state, a long-term financial prognosis of a unit of the territorial government) ,
- managerial control.

The instruments mentioned above are based on conducted measurements and evaluation of the degree of execution of the set goal and the conducted programmes, tasks, sub-tasks and activities.

Subject literature as well as activities of the public sector indicate that evaluation and task budgeting are attributes of a modern state and they are the instruments that complement each other. It is also claimed that there is a necessity to introduce benchmarking into the activities of units of the public

²⁶ A. Zalewski, *Nowe zarządzanie publiczne w polskim samorządzie terytorialnym*, SGH, Warszawa 2005, p. 7.

²⁷ B. Filipiak, *Efektywność...*, op. cit. p. 225.

²⁸ *Ustawa o finansach publicznych z dnia 27.08.2009 roku*, Dz.U. nr 157, poz. 1240 z póź. zm.

²⁹ *Ibidem*.

sector. Consistent implementation and appropriate coordination of advisable instruments may lead to a growth in the effectiveness of the allocation of public resources, i.e. the effectiveness of the incurred expenses³⁰.

The core of the task budgeting is planning and managing an activity of an organization through changing activities into tasks. It is created on the basis of a detailed material and financial plan of intentions, i.e. tasks that are to be performed by administrators. It is a departure from the traditional budgetary method towards pro-effectively oriented project tasks. Task budgeting is created in such a way that after accepting budgetary assumptions indicating income and operating expenses, available funds and the level of liabilities for a given year, planning data for units and departments containing priorities resulting from long term developmental programmes is prepared³¹.

The implementation of a task budgeting system may bring a lot of benefits in the form of savings, as well as improving the quality of managing the potential of a unit of the territorial government.

As mentioned before, effectiveness of activities can be improved only when there is precise and unambiguous knowledge on the things we were to achieve by such activities and what, and at what cost, we have achieved. It means that it is possible, neither to measure the effectiveness, nor to require if the expected results and ways of measuring them are not defined³².

A basic instrument allowing us to make measurements in task budgeting is an indicator. It should be used to evaluate the task execution or functions, taking into account the significance of the task, efficiency, effectiveness, usefulness and durability.

Significance gives answers to the question to what extent the task goals are important in relation to the occurring needs and priorities of the development of the state, effectiveness – how financial and material resources have been used to produce goods or achieve the main and specific goals, usefulness – whether the programme or the function will have influence on the target group within the scope of fulfilling its needs. Durability means whether, and to what extent, changes are expected as a result of the programme closure³³.

³⁰ A. Haber, M. Szałaj, *Ewaluacja wobec wyzwań stojących przed sektorem finansów publicznych*, PARP, Warszawa 2009, p.11.

³¹ M. Wartalska, *Gospodarka finansowa miasta. Podstawy teoretyczne i studium przypadku*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2009, p. 114.

³² *Raport. Budżet zadaniowy. Tom I. Budżet zadaniowy na rok 2008*. Kancelaria Prezesa Rady Ministrów, Departament Budżetu zadaniowego, Warszawa 2007, p. 19.

³³ E. Markowska-Bzducha, *Budżet zadaniowy jako źródło mierników oceny działalności podmiotów sektora publicznego*, [in:] Filipiak B. (ed.), *Ekonomiczne i organizacyjne instrumenty wspierania rozwoju lokalnego i regionalnego*, Zeszyty Naukowe Nr 500, Uniwersytet Szczeciński, Szczecin 2008, p. 370.

Indicators should create a system that will allow us to evaluate the effects of the expenses paid. Such a system should be based on various types, and various levels of activities, processes, products and services. Indicators should directly unite the process, product, activity or services with the achieved results and incurred expenditure. Moreover, it should unite the programme, task, sub-task and activity. The system of indicators should also enable a collection of data concerning the execution of the process, activities, tasks, service or product supplying as well as their economic and social effects³⁴.

After the evaluation of the efficiency of the public task execution, indicators of effectiveness and efficiency are the most important. The former measure the relation between the expenditure and the achieved results. They may be applied at the task and programme level. Whereas, the latter measure the extent of the achievement of the set goals. The indicators should be³⁵:

- direct – should be created in such a way as to show the execution of tasks in a detailed way, i.e. a number of new work places is a direct measure of supporting resourcefulness,
- objective – while evaluating the indicator, there should not be ambivalence of what is being measured
- adequate – treated as a group, should measure the goal achievement, be strictly connected with the task goals,
- practical – when data can be obtained in due date and at reasonable costs,
- reliable – should provide data of proper quality, on the basis of which important decisions can be made.

Subject literature mentions one more way of dividing indicators: indicators of impact, result and product³⁶.

Indicators of impact allow us to evaluate the direct effects of a given programme, a task, a sub-task or an activity which occur sometime after supplying products or as a result of provided services or effect occurrence.

Indicators of results determine the results of the implementation of the execution of a programme, a task, a sub-task or an activity, therefore output effects directly after the programme closure. They occur in the form of indicators of both effectiveness and efficiency.

Indicators of a product show the extent to which a programme, a task, a sub-task or an activity has been completed in the short term. They allow us to measure effectiveness and efficiency.

³⁴ B. Filipiak, *Efektywność...*, op. cit., p. 231.

³⁵ *Budżet zadaniowy. Materiały szkoleniowe*. Kancelaria Prezesa Rady Ministrów, Warszawa 2007, p. 22.

³⁶ M. Dylewski, B. Filipiak, A. Guranowski, J. Hołub-Iwan, *Zarządzanie finansami projektu europejskiego*, C.H. Beck, Warszawa 2009, p. 224-225.

The person responsible for managing territorial finances should make up the indicators so that they could show³⁷:

- specific goals, quantified for the programme, the task, sub-task or activity and their mutual consistency,
- the achieved level of the implementation of the programme, the task, sub-task or activity in categories of physical advance, results and a fast impact at the appropriate level,
- the progress of the execution of a long term financial plan including programmes to complete and the budget.

The adopted indicators should also be both precise and easy to be calculated. It is also important for them to be comparable to past periods and able to be verified with similar indicators.

The instrument increasing the effectiveness in units of territorial governments is evaluation. It is connected with checking the level of the achieved goal and confirming the equity of the choice of instruments (in the case of a positive opinion) or finding causes and factors of the failure (in the case of a negative opinion). The use of evaluation allows us to assess the conducted activity in terms of³⁸:

- a close connection between the programme, the task, sub-task or activity and its financing (budget),
- a close connection between the budget and reporting,
- a profound analysis of relations between goals, measures and performance.

The evaluation may be conducted on the basis of specially developed methodology PART (The Programme Assessment Rating Tool). It is a highly specialized and standardized type of evaluation, also called performance audit. It includes asking 25 basic questions concerning each programme or task. The questions are divided into four categories. The first one refers to the programme purpose and design, whereas the second one is connected with strategic planning and assessment of the correctness of the formulation of annual and long term goals. The third section concerns programme management and the fourth one relates to the programme or task results, which can be shown in a clear and detailed way³⁹.

Performance audit should be executed in such a way as to enable objective assessment and the ability to formulate objective conclusions. They ought to be made up in the way that it would be possible not only to get to know the cause of the aberration from the set goal but also to be able to take

³⁷ Ibidem.

³⁸ B. Filipiak, *Efektywność...*, op. cit. p. 232.

³⁹ A. Haber, M. Szałaj, *Ewaluacja...*, op. cit. p.15.

action, allowing us to achieve the desired state and remove revealed irregularities during the audit.

Benchmarks, making comparisons with other units working in a close area, can also be used to assess effectiveness. Both qualitative and quantitative measurements are the basis for conducting benchmarking. Due to the lack of market conditions for the functioning of units of the sector of public finance, including the local ones, the described instrument may be an important element of the assessment of the achieved effects based on available funds in a given unit. Benchmarking is performed on the basis of comparable tasks, conducted by units of local government that are similar to each other as far as budget, location and inhabitants are concerned. Making comparisons of prices, the efficiency of undertaken activities, the efficiency of activities and prices and the effectiveness of another unit may introduce an element of competition and as a result lead to the improvement of the achieved results.

2.5. Summary

The problem with the measurement of effectiveness is becoming significant. It results from the changes that are being introduced into the sector of public finance. Effectiveness constitutes an attribute of a modern state and should be measured despite numerous obstacles. It is necessary not only to choose appropriate tools but also to conduct an evaluation of the achieved results and to determine the reasons for aberrations of the decisions made. It may be expected that the system of measuring the effects and results in the sector of territorial government will be developing. At first it will be a general approach effect to effect measurements, however, it will become more advanced with time and after gaining experience. Properly chosen instruments for the measurement of effectiveness and their consistent implementation will allow us to increase the quality of the functioning of the state and territorial government.

Iwona Koza⁴⁰

3. Innovation as a condition of effectiveness of Polish local communities.

Case study: Central & East Macro-region of Poland

3.1. Introduction

Innovation is a commercialized invention. The idea is that government innovation will evolve into a high operating profit. Innovative companies develop faster, employ more people and invest more money.

Claude Ponsard noted that from an economic point of view, space is not neutral, which means that economic processes associated with it should take part in it. The individual elements of the regional area have a specific value for investors, clients, residents, local authorities, i.e. the parties (stakeholders) that form relationships with each other. Relationships are bilateral and overlap between the investor and the municipality, the company and the municipality, the city and the region, the entrepreneur-manager and the region etc. The value of the elements of space is connected with benefits, which, to a greater or lesser extent, meet the expectations of the parties. The exchange of value between the parties leads, on the one hand, to a wide range of individual benefits for the manager, the investor looking for an attractive location for the proposed business venture and, on the other hand, to the benefits for the partner (e.g. the local unit) in the form of direct and indirect factors (e.g., funding, jobs, taxes, diffusion of innovation), giving a boost to the development of the entire region and its socio-economic structures⁴¹.

Also from the economic point of view, the actions rely on the effective organization of capital resources to carry out projects involving various degrees of risk in order to get benefits. The essence of effectiveness is, therefore, the use of the emerging opportunity and taking action to make a profit⁴².

Promoting the management efficiency is essential, both in the private and in the public sector. Stefan Marciniak writes in his manual that the main

⁴⁰ Iwona Koza PhD, State School of Higher Education in Chelm.

⁴¹ Ponsard C. (ed.), *Ekonomiczna analiza przestrzenna*, Wyd. AE w Poznaniu, Poznań 1992 and Broł R., Raszkowski A. (ed.), *Problemy rozwoju regionalnego*, Wydawnictwo Uniwersytetu Ekonomicznego, Wrocław 2011, p. 11 and n.

⁴² Comp. Makiela Z., *Przedsiębiorczość i innowacyjność terytorialna*, Wyd. C.H. Beck, Warszawa 2013, p. 25 and n.

assumption of the theory that growth and economic development are today important categories of the theory of sustainable development is simultaneous, harmonised development of four interrelated subsystems: natural, technological, economic and socio-cultural in order to meet the basic needs of society as a whole and preserve and strengthen democracy and social justice. It is not about any growth and economic development, but the one that better meets the needs of all members of society, and at the same time does not affect the natural properties and balance of the environment. Growth means, in fact, positive changes in the size and structure of the streams of finished goods and services produced and shared in the economy and in its stocks at any given time. As a rule, it improves relationships in the manufacturing processes of the goods and the provision of services, as well as their redistribution and ultimate destination. Economic development, however, means the process of positive change in the management, manufacturing operations and redistribution of goods and services, their exchange and end-use consumer targets, and increasing the economic potential. This process is expressed in the increase and change in the structure of the generating capacity of the economy, the actual production of goods and services, their redistribution, exchange and consumption. Economic development is also changing the scope, form and nature of economic relations. It increases the scope and importance of virtual economic relations, which allows for the widespread computerization of basic management entities. Thanks to the fact that the process of economic development is followed by the improvement of its underlying factors, such as, durable, tangible capital, working capital, human capital, infrastructure, technical, economic, social and ecological economy, a better base for future economic development is created⁴³.

The first innovation theorist was Joseph Schumpeter, who coined the phrase "creative destruction"⁴⁴. In the modern economy branches are needed that produce a lot and strive for a maximum low cost of the average product. But there is also a need for the branches which are experimenting. Meanwhile, the Polish economy recorded one of the lowest indicators of innovation in Europe. Polish entrepreneurs are very conservative – in business they are looking for a competitive advantage by reducing costs, and this is not conducive to innovative behaviour. Demanding customers, however, do not look for the product with the lowest price but with the highest quality. To achieve quality, you often need to look for innovation in production. In Poland

⁴³ Wider: Marciniak S., *Czynniki wzrostu i rozwoju gospodarczego*, [w]: Marciniak S., *Makro- i mikroekonomia. Podstawowe problemy współczesności*, WN PWN, Warszawa 2013, p. 372-376 and Markowski T., *Teoretyczne podstawy rozwoju regionalnego i lokalnego*, [in:]: Strzelecki Z., *Gospodarka regionalna i lokalna*, WN PWN, Warszawa 2008, p. 13-46.

⁴⁴ Comp. Zorska A. (ed.), *Chaos czy twórcza destrukcja? Ku nowym modelom w gospodarce i polityce*, Oficyna Wydawnicza SGH, Warszawa 2011, p. 21.

the best innovators are entrepreneurs. The state can help them but not replace them. It can become a model client, can support the search for customers somewhere in the world, can facilitate the transfer of knowledge in the case of knowledge-based efficiency and simplify taxation. Polish people are accustomed to EU funds or bank loans, but they do not increase innovation. The Government should rather take care of non-monetary support. Although Poland over the last decade has had the highest economic growth in the European Union, the growth reserves based on national resources, such as, clients, employees and knowledge, are ending. This is the last moment to seriously begin making innovations⁴⁵.

3.2. The specificity of the European Continent

Regional research, knowledge and innovative capacity depends on a range of factors – business culture, workforce skills, education and training institutions, innovation supporting services, technology transfer mechanisms, regional infrastructure, the mobility of researchers, sources of finance and creative potential⁴⁶.

One of the key objectives of the EU during the last decade has been to encourage increasing levels of investment in order to provide a stimulus to the EU's competitiveness. The Lisbon strategy set the EU an objective of devoting 3 % of its GDP to R & D activities by 2010.

After all, innovation forms a part of the Europe 2020 strategy for its role in creating job opportunities, making enterprises more competitive in the global market, improving the quality of life and contributing to a more sustainable growth. Encouraging and stimulating innovation is one of the main objectives of European policies. The Community Innovation Survey (CIS) provides statistics analysed by types of innovators, economic activities and size classes⁴⁷.

Europe has good conditions to benefit from the momentum boost growth opportunities. As the largest internal market in the world, it is home to many innovative enterprises belonging to the forefront and takes the leading position in many fields of knowledge and key technologies, such as health, food, renewable energy, environmental technologies and transport⁴⁸.

⁴⁵ Comp. Staniłko J. F., *Ostatni dzwonek*, „Gość niedzielny”, 7 II 2016, p. 62-63.

⁴⁶ Eurostat, Statistical books, *Eurostat regional yearbook 2015*, <http://ec.europa.eu/eurostat/documents/3217494/7018888/KS-HA-15-001-EN-N.pdf/6f0d4095-5e7a-4aab-af28-d255e2bcb395>, p. 158-174 [14.12.2015].

⁴⁷ Eurostat, Statistical books, *Key figures on Europe, 2015 edition*, <http://ec.europa.eu/eurostat/documents/3217494/7072644/KS-EI-15-001-EN-N.pdf/318ee884-50d6-48f0-b086-4410da85d6b6>, p. 134-147 [14.12.2015].

⁴⁸ *Sprawozdanie z 2013 r. na temat konkurencyjności Unii innowacji*, SWD(2013) 505.

It has extremely valuable resources created by a highly qualified workforce and outstanding talents in the creative and cultural activities. However, efforts are necessary to ensure the smooth functioning of the single market, to improve the conditions for innovation in enterprises and accelerate the investment in ground-breaking technologies in fast-developing areas⁴⁹. Now, when Europe comes out of the crisis, more and more you will see, that the promotion of strategies to stimulate growth eventually came to fruition. There is evidence that the recent rise in productivity is owed largely to technological innovations⁵⁰, and that often those countries that had invested more in research and innovation before the crisis and during it, turned out to be the most resistant to the effects of the economic collapse⁵¹.

3.3. The specificity of the Polish Regions

The transformation that has occurred in the system and in each of the dimensions of the socio-economic life in Poland after 1989, represents the effect of the different activities over a period of 25 years, resulting from the processes of convergence of the organisation and operation of the internal and external environment of the country to conditions of the highly developed countries of Western Europe, in particular in the European Union. As a result, the return of democracy and the introduction of economic freedom has been opening up Poland to foreign markets, which, in turn, led to the transfer of capital, information and knowledge (internal and external), restructuring of the economy, technological and technical progress, and an actual civilization change⁵².

The unique constitutional transformation initiated in Poland at the turn of the eighties and nineties of the 20th century led to changes in socio-

⁴⁹ Komunikat Komisji do Parlamentu Europejskiego, Rady Europejskiej, Europejskiego Komitetu Ekonomiczno-Społecznego i Komitetu Regionów, *For a European Industrial Renaissance / COM/2014/014 final*, <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52014DC0014> [11.01.2016].

⁵⁰ GDP growth in the OECD countries in the years 1985-2009 was largely the result of increased capital resources and productivity growth, which were the driving force behind multivariate results in the research and innovation systems. See: *Productivity and growth accounting*, OECD Report, 2011.

⁵¹ Comp. Strahl D. (ed.), *Metody oceny rozwoju regionalnego*, Wydawnictwo Akademii Ekonomicznej im. Oskara Łangego, Wrocław 2006, p. 49 and n. and Komunikat Komisji do Parlamentu Europejskiego, Rady Europejskiej, Europejskiego Komitetu Ekonomiczno-Społecznego i Komitetu Regionów, *Badania naukowe i Innowacje jako źródło ponownego wzrostu gospodarczego /SWD/2014/181 final*, <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1432400330995&uri=CELEX:52014DC0339> [11.01.2016].

⁵² *Biała księga obszarów metropolitalnych*, Ministerstwo Administracji i Cyfryzacji, Warszawa 2013, p. 3 and Edwarczyk B., *Rozwój obszarów metropolitalnych w świetle transformacji samorządu terytorialnego w Polsce w latach 1990-2014*, [w]: *Polska – 25 lat samorządu terytorialnego*, Ruch prawniczy, ekonomiczny i socjologiczny, z. 3, 2015, p. 303-305, 314-317.

economic conditions. The introduction of the freedom of activity of citizens both in the field of social activities, as well as an open, free market economy, resulted in the intensification of democratisation and commercialization processes. Transformation of the Polish State regime allowed for its inclusion in the circulation of the global economy, which in turn, affected not only the exchange processes at the level of the country territory, but also at a global level. Processes, which occurred in Poland as a result of the ongoing social and economic interactions, resulted in the emergence of phenomena such as globalization, technological and technical progress, reorganization of sectors of activity and an increase in the importance of services, in particular, liberalisation of social policy, political and economic integration or realignment of culture and demographic structures⁵³.

The major challenges related to the management of public space in Poland in the upcoming years were diagnosed on the basis of the analysis carried out for the purposes of the preparation of the country's strategy papers⁵⁴, using the conclusions drawn from already prepared reports. As a result of the description of the problems, the ways to impact on the environment and tools for the conscious evolution of a Polish socio-economic space structure were defined so as to assist the processes of automatic spreading factors of development. One of the development policies will be a concentration, including management of the development of metropolitan areas⁵⁵.

3.4. Efficiency and innovation and territorial management

Efficiency, as a result⁵⁶ of measures taken to achieve the best results in production, distribution, sale or promotion constitutes a condition for innovation. There is, indeed, a need for constant surveillance and evaluation of changes in the economic, social and political phenomena occurring in the distant and close surroundings of each of the sectors concerned. This allows you to turn on the effective implementation of the objectives by competent decision-making and organizational control⁵⁷.

Modern society looks for efficiency in all the elements included in the

⁵³ Liszewski S. (ed.), *Geografia urbanistyczna*, WN PWN, Warszawa 2012, p. 164.

⁵⁴ Comp. *Raport Polska 2011. Gospodarka - Społeczeństwo — Regiony czy Raport o stanie przestrzennego zagospodarowania kraju „Polska przestrzeń”* (2007).

⁵⁵ Wider: Fedan R. (ed.), *Budowanie strategii wzrostu wartości przedsiębiorstw i regionów*, Wydawnictwo Uniwersytetu Rzeszowskiego, Rzeszów 2013, p. 6 and n. and *Koncepcja przestrzennego zagospodarowania kraju 2030*, p. 14.

⁵⁶ The result is a derived effects incurred expenditure.

⁵⁷ Comp. Sierpińska M., Jachna T., *Ocena przedsiębiorstwa według standardów światowych*, WN PWN, Warszawa, 1997, p. 9.

social system. From the point of view of the public interest, the most important is the creation of good conditions for social initiatives, in which the basic factor is a creative attitude. Favourable circumstances triggering such behavior appear in the organization of social order, which is defined in sociology as localism. This indicates the primacy of social and economic life in local communities over the global society. One of the parts of the social system are public finances, whose proper use is expressed by the best use of public funds, that is satisfying in the best way local, regional and national needs⁵⁸.

The theory and practice of public finances both confirm that the use of public funds is more effective when the administrators of funds and implementers of public tasks are closer to the communities for which they work. This is due to better diagnosis of needs and better allocation of financial resources. Decentralization of expenditure financed from the resources of the public favours their rational use. Meeting the needs is the most efficient in a decentralized system (closest to the citizen) and triggers initiative and entrepreneurship. An important factor is also a greater ability to control financial spending by local communities, because the decision maker is less anonymous⁵⁹.

For the subject of the article presented above, the hypothesis is put that there is a low rate of innovation introduction in the Polish economy.

3.5. Research engine

The main sources of innovation, also referred to as regional development capital, are research and development activities and scientific institutions, the production of knowledge in the form of patents and licences and the production of technically advanced machinery and equipment, the provision of a new quality of service. The literature says that the gauges for determining the level of innovation in the region are, among others, the level of expenditure on research and development in the private and public sectors, their share in the GDP, the structure of the funding of R & D activities, the number of patents submitted by regional universities and R & D institutes, the number of patent implementations, the level of employment in the R & D sector (private and public), the share of innovative products in the total sales and the export of the region, the level of education of the inhabitants⁶⁰.

⁵⁸ Wider: Owsiak S., *Finanse publiczne. Teoria i praktyka*, WN PWN, Warszawa 2005, p. 112 and Gonet W., *Kredyty, pożyczki, obligacje w gospodarce finansowej samorządu terytorialnego*, Monografie i opracowania 543, Of. Wyd. SGH, Warszawa, 2006, p. 30.

⁵⁹ Wider: *ibidem*, p. 112

⁶⁰ Comp. Makieła Z., *op. cit.*, p. 11 and n.

Measuring the effectiveness is made by using partial synthetic productivity pointers of resources (labour, capital). Efficiency can be identified ex post or ex ante. Calculating the effectiveness ex-ante we estimate the predicted effects taking into account specific measures and time. Ex post effectiveness relates to the determination of results of specific activities. Measurement and study of effectiveness is the main subject of the economical account.

The analysis of the aspects outlined above and the conclusions of the study will be the contents of this publication. The research area of this article will be the central macro-region and the east macro-region. Their situation will be shown on the background of the results achieved by the countries of the European Union.

The study of economic development will start from the calculation of gross domestic product per capita, which in the regional context may be used to measure macroeconomic activity and growth, as well as providing the possibility of comparison between the regions⁶¹.

The value of GDP for Polish and selected European countries will be shown. Then, an appropriate research tool, consisting of a set of statistical indexes, will be selected. For the complete content analysis, examples of major cities in the test area will be presented. Development strategies of the selected cities will serve as a source of information here⁶².

The culmination of the body of the chapter will be applications, the application which can be used for further regional policy in the communities surveyed.

The last part of the main body of the article will be applications, which can be used for further regional policy in the communities surveyed.

The test will involve a period of the last 10 years of operation of the local authorities, i.e. 2005-2014. Taking into account the period of time that the analysis will concern, it will be a retrospective analysis (ex post), containing an assessment of the results of the actions taken in the past, and which is the starting point for the current objectives and projects related to the future⁶³.

The database information will be both Eurostat⁶⁴ and the Local Data Bank of the Main Statistical Office⁶⁵. The last part of the statistical characteristics will be the information taken from the development strategies of Polish city boroughs.

⁶¹ Wider: Eurostat, Statistical books, *op. cit.*, p. 122 [14.12.2015].

⁶² It is interesting to note that the value of statistical indexes achieved by Warsaw, due to its specific characteristics, in each year, and in all respects, far exceed the value of the indexes by other cities.

⁶³ Wider: Sierpińska M. Jachna T., *op. cit.*, p. 17.

⁶⁴ <http://ec.europa.eu/eurostat> [02.12.2015].

⁶⁵ http://stat.gov.pl/bdl/app/miejsc_w.dims?p_id=25282&p_token=1662301702 [01.12.2015].

All data will be used to compare the situation of the Polish regions with the situation in the EU-27. The characteristics adopted in the research are the following:

1. Research and development expenditure – all sectors,
2. Gross domestic expenditure on R&D - business enterprise sector,
3. Share of government budget appropriations or outlays on research and development,
4. Human resources in science and technology (HRST),

Data at the disposal of the Local Data Bank of the Main Statistical Office will allow for the following specific characteristics relating to innovation:

1. Companies that have sustained investment in innovation activities:
 - a. companies:
 - companies from the service sector,
 - industrial enterprises,
 - b. expenditure on innovation activities:
 - total,
 - companies from the service sector,
 - industrial enterprises,
2. Expenditure on innovation activities of enterprises by type of innovation:
 - a. companies from the service sector:
 - total,
 - research and development (R + D),
 - buying knowledge from external sources,
 - purchase software
 - investment on fixed assets
 - training of personnel directly related to the implementation of the process or product innovations,
 - marketing associated with the introduction of new or significantly improved products,
 - b. industrial enterprises:
 - total,
 - research and development (R + D),
 - buying knowledge from external sources,
 - purchase software
 - investment on fixed assets
 - training of personnel directly related to the implementation of the process or product innovations,
 - marketing associated with the introduction of new or significantly improved products.

To describe the statistical structure of the above characteristics we will use such measures as the arithmetic means of *the values achieved in

individual years and chain dynamic indexes calculated year-on-year and geometric means showing the value increase in the last year as compared to the first year⁶⁶.

For verification of the above arguments, the forecast made will be discussed in these values, extended for the next three years⁶⁷.

The effects of analysis will be presented in figures.

3.6. Characteristics

*GDP per capita*⁶⁸

The index of GDP per capita expressed in purchasing power parity (PPS/purchasing power standard) shows the amount of the GDP of the country in relation to the EU average, which is assumed to be equal to 100. It is calculated taking account of the differences in price levels between countries. Values less than or greater than 100 means respectively lower or higher than the EU average level of GDP.

Poland in terms of the value of GDP per capita expressed in purchasing power parity, and calculated for the years 2005-2014 was ranked 10th among the 28 countries belonging to the European Union. The last place was taken by Albania, and the first one by Luxembourg- far ahead of other countries of the community- and Norway. However, among these countries, during the period, the best improvement was seen in the result of Poland (Albania) (Figure 3.1) Among all the countries of the European Union, a better result in this field was achieved only by Lithuania and Romania.

Further characterisation shall be carried out on the basis of a comparison of the values achieved in the above EU countries selected for comparison⁶⁹.

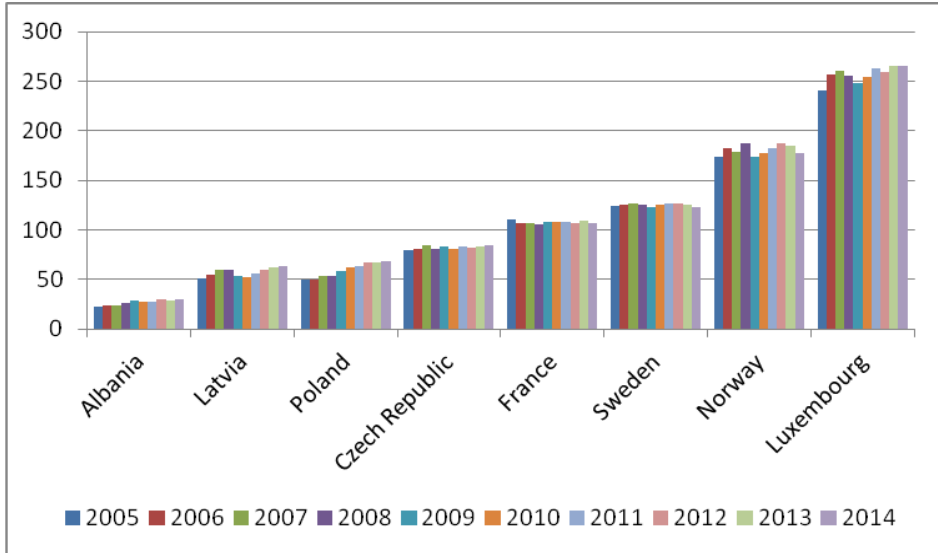
⁶⁶ Wider: Forlicz S. (ed.), *Metody ilościowe w ekonomii*, Wyd. Wyższej Szkoły Bankowej, Poznań 2008, p. 219-232 and Zeliaś A., *Metody statystyczne*, Państwowe Wydawnictwo Ekonomiczne, Warszawa 2000, p. 37-77.

⁶⁷ Comp. Cieślak M., *Prognozowanie gospodarcze. Metody i zastosowania*, WN PWN, Warszawa 1997, p. 51 and n.

⁶⁸ Source: <http://ec.europa.eu/eurostat/web/products-datasets/-/tec00114> [19.02.2016].

⁶⁹ Excluding Albania, Norway and Luxembourg, which will improve the readability of figures.

Figure 3.1
PKB per capita expressed in purchasing power parity



Source: own elaboration.

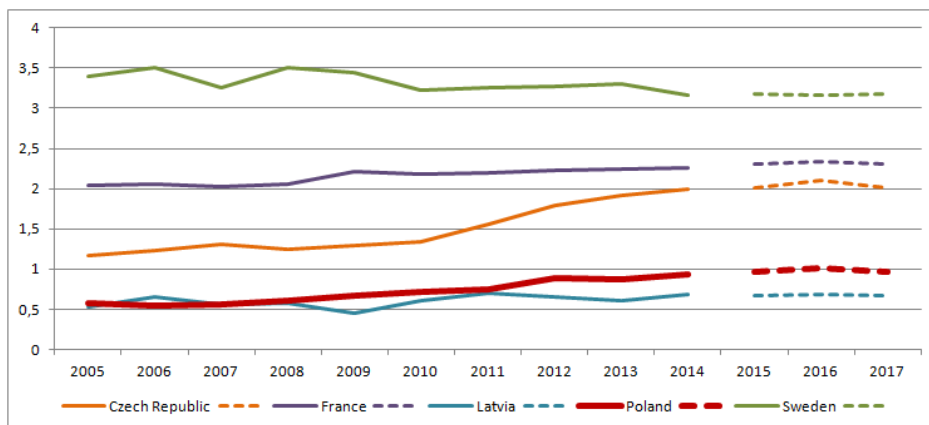
*Research and development expenditure*⁷⁰

Innovative activity is the overall of scientific, technical, organizational, financial and commercial activities that are actually carried out or are intended to lead to the implementation of innovation. Some of these activities are innovative themselves, while others are not new but are necessary for the implementation of the innovation. Innovative activity also includes research and development (R & D), which is not directly related to the creation of a specific innovation⁷¹.

⁷⁰ Source: <http://ec.europa.eu/eurostat> [02.12.2015].

⁷¹ http://stat.gov.pl/bdl/app/miejsc_w.dims?p_id=25282&p_token=1662301702 [01.12.2015]

Figure 3.2
Research and development expenditure – all sectors



Source: own elaboration.

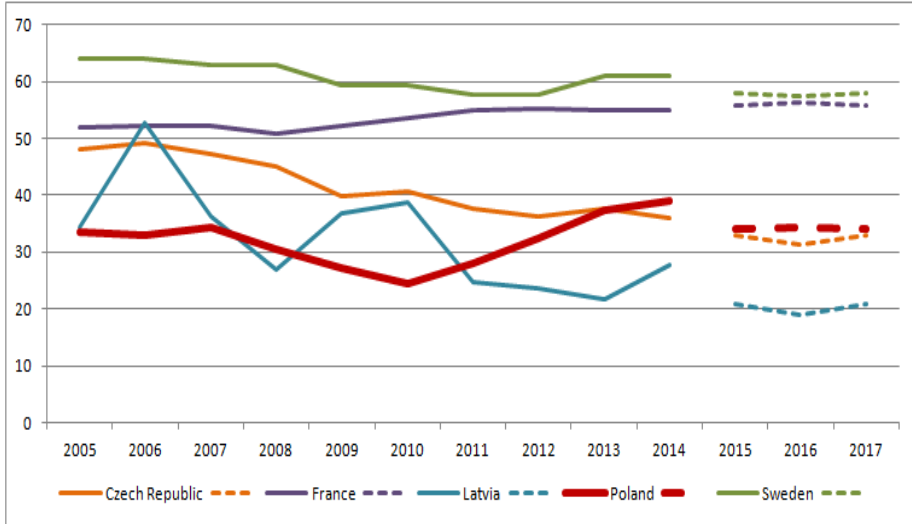
During the period, expenditure in most countries for research and development had an increasing tendency. The exception was Sweden (Figure 3.2). However, in this country projections also showed an increase in value of this characterisation. The best results were reached by Sweden, the worst by Latvia. Polish results were one of the weaker. When it comes to the national gross expenditure on research and development, in the corporate sector in all countries, both in actual and planned projects, a growing trend remained (Figure 3.3). Like the earlier characteristics, the best results were reached by Sweden, and the worst by Latvia. Polish results were among the weaker.

Sweden also reached the best results in the participation of government budget appropriations on research and development. Here all countries maintained a downward trend (Figure 3.4). As before, Poland was one of the most vulnerable countries, and the results were nearly the worst.

In contrast to the previous characteristics, the quantity of the human resources in the field of science and technology in all countries have a strongly growing trend. Sweden was the best, and the worst were Poland and the Czech Republic (Figure 3.5).

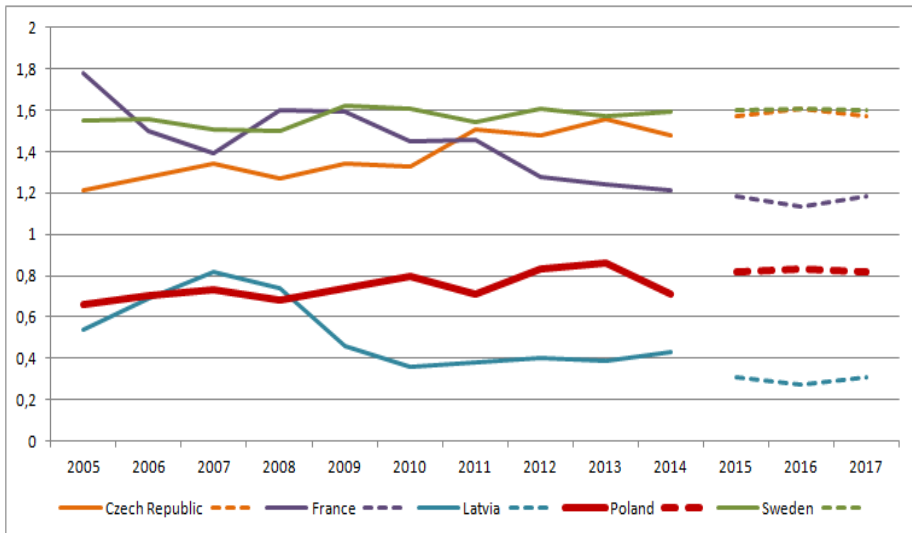
Part 1. EFFECTIVENESS OF MANAGEMENT AT REGIONAL LEVEL

Figure 3.3
Gross domestic expenditure on R&D - business enterprise sector



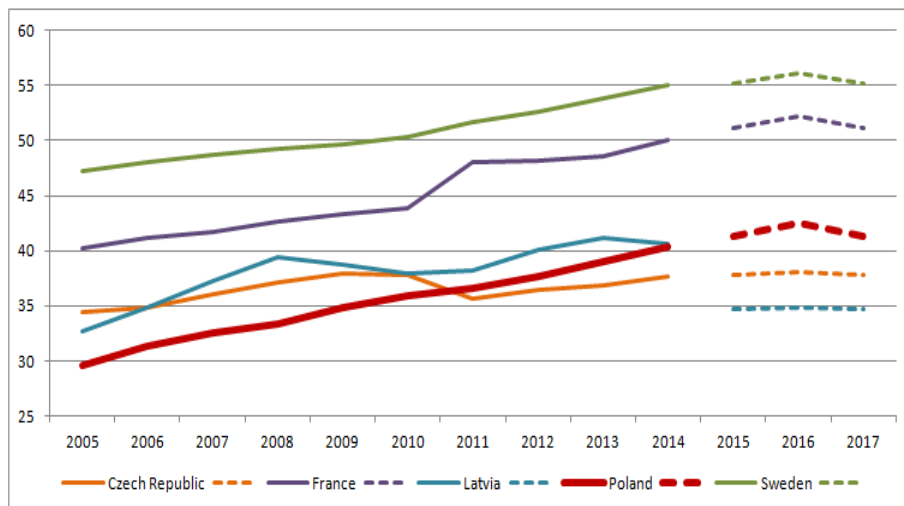
Source: own elaboration.

Figure 3.4
Share of government budget appropriations or outlays on research and development



Source: own elaboration.

Figure 3.5
Human resources in science and technology (HRST)



Source: own elaboration.

Supplementary details of the above characteristics are based on analysis of data at the disposal of the Local Data Bank of the Main Statistical Office⁷².

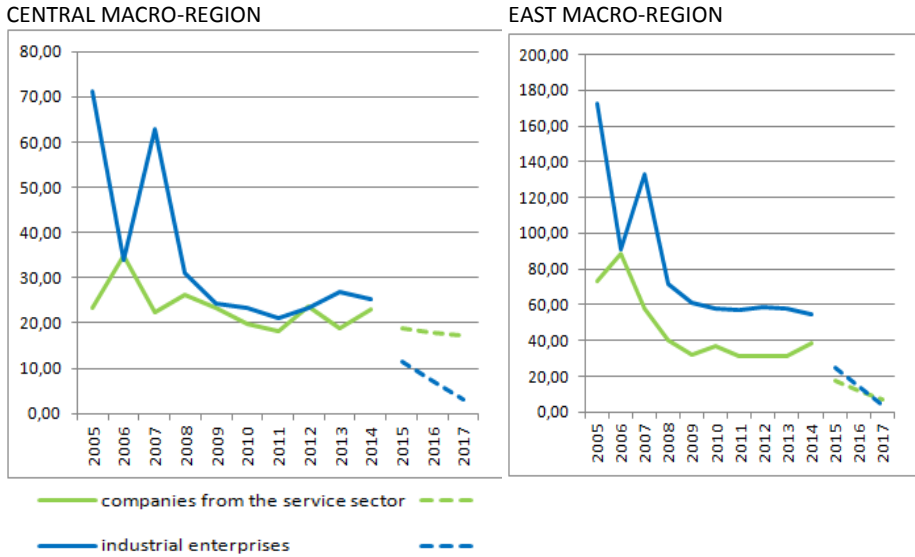
When it comes to the amount of Polish businesses which have invested in innovation activities, both in the service sector and in the sector of industrial enterprises in the real and planned projects a downward trend continued. However, the same expenditure on innovation activities grew from year to year, both in the Central macro-region and Eastern macro-region, with similar dynamics in both of them. (Figure 3.6 & 3.7) In addition, in the Center of the investment value was higher and the leaders were the companies from the service sector. In the East, the services sector was much weaker than the industrial sector.

In detail, when it comes to investment in the innovation activities of enterprises by type of innovation, both in the service sector and in the industrial sector, expenditure for research and development (R & D) prevailed. In the services sector (especially in the Central macro-region) large expenditures were incurred for the purchase of software and the purchase of buying knowledge from external sources, as well as for marketing related to the introduction of new or significantly improved products (Figure 3.8. & 3.9).

⁷² Source: http://stat.gov.pl/bdl/app/miejsc_w.dims?p_id=25282&p_token=1662301702 [01.12.2015].

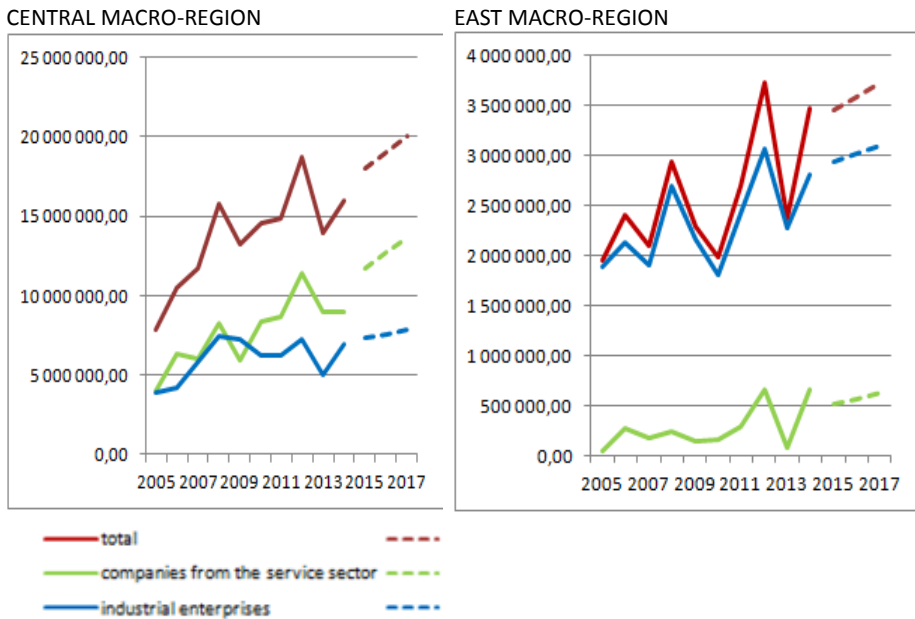
Part 1. EFFECTIVENESS OF MANAGEMENT AT REGIONAL LEVEL

Figure 3.6
Companies that have sustained investment in innovation activities – companies



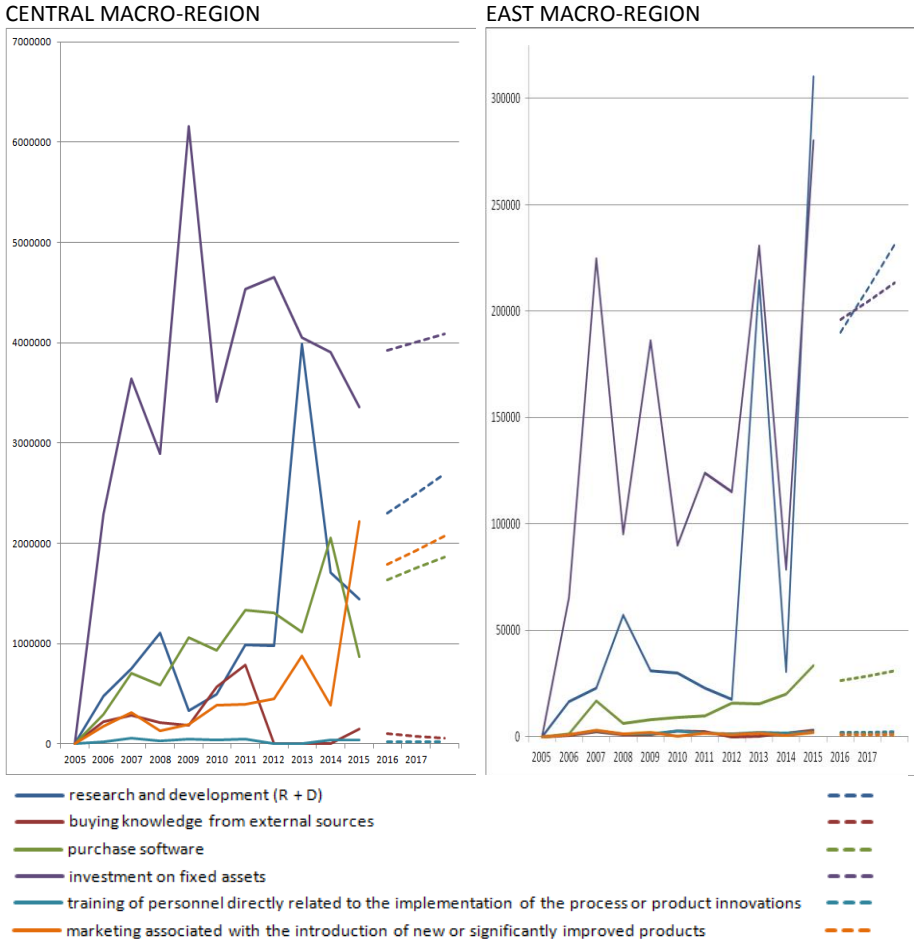
Source: own elaboration.

Figure 3.7
Companies that have sustained investment in innovation activities - expenditure on innovation activities



Source: own elaboration.

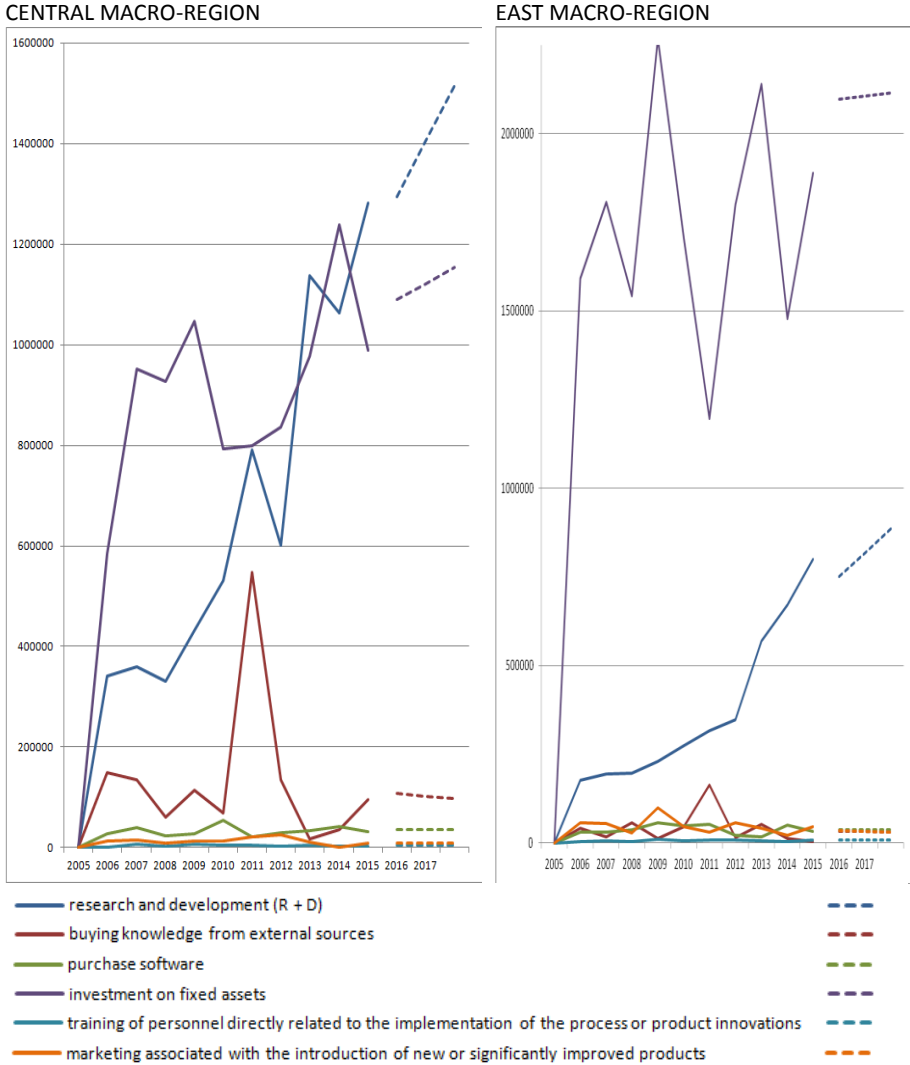
Figure 3.8
Expenditure on innovation activities of enterprises by type of innovation – companies from the service sector



Source: own elaboration.

Part 1. EFFECTIVENESS OF MANAGEMENT AT REGIONAL LEVEL

Figure 3.9
Expenditure on innovation activities of enterprises by type of innovation – industrial enterprises



Source: own elaboration.

Development strategies

The success of cities is determined not only by their expansiveness and strength, but also flexibility and ability to adapt. Provincial cities located in the Central and the East are: Warsaw⁷³, Lodz⁷⁴, Bialystok⁷⁵, Kielce⁷⁶, Lublin⁷⁷ and Rzeszow⁷⁸.

Warsaw is the capital city, the driving force of the development of Polish municipalities and an unsurpassed model for them. Knowledge is currently in the capital the most important factor of economic growth. Warsaw is a modern industry and focused on innovation. Warsaw owes new solutions mainly to companies with foreign capital and the importation of ready-made solutions, machinery and equipment. Currently, the share of funding for research and development of 40% comes from economic entities. In order to improve the potential of the scientific research, scientific and technological parks must be established to enable the transfer of knowledge from science to practice and business.

The City Council of Lodz has the departments responsible for the investment support and promotion of entrepreneurship. However, at the same time, the trend is to outsource these activities as more effective and more flexible for this city. The priority is to provide the human resources for job-investors in the city of Lodz and its agglomeration, and hence the introduction of the monitoring of the Lodz labour market in order to anticipate the demand for jobs and investments in at least a 2-year horizon and be prepared in advance for the needs of investors. It is also important to create a flexible agglomeration educational base in the field of vocational education for new investments and investors on the basis of an agglomeration labour market analyses system.

Also in Bialystok, a strategic objective in the area of economic development is the long-term growth of the knowledge-based economy and, consequently, a greater number of qualitatively better jobs. The priorities in this town are: enhancing the competitiveness of the non-local SME sector companies, the development of an innovative economy, the acquisition of

⁷³ *Development strategy of Warsaw*: https://www.um.warszawa.pl/sites/default/files/Strategia_Rozwoju_m.st._Warszawy_do_2020_r..pdf [29.02.2016].

⁷⁴ *Development strategy of Łódź*: uml.lodz.pl/get.php?id=2771 [29.02.2016].

⁷⁵ *Development strategy of Białystok*: http://www.bialystok.pl/pl/dla_biznesu/rozwoj_miasta/ [29.02.2016].

⁷⁶ *Development strategy of Kielce*: <http://www.bip.kielce.eu/73> [29.02.2016].

⁷⁷ *Development strategy of Lublin*: strategia2020.lublin.eu/ [29.02.2016].

⁷⁸ *The main and detailed strategic objectives for the development of Rzeszow*: <http://bip.ereszow.pl/plany-i-programy/940,strategia-rozwoju-miasta-rzeszowa-i-studium-uwarunkowa-i-kierunk-w-zagospodarowania-przestrzennego.html> [29.02.2016].

external investors, domestic and foreign as well as the development of economic links with the eastern neighbours of Poland and the EU.

The strategic objectives of Kielce are providing local entrepreneurs with tools for their development and the construction of a knowledge-based economy to stimulate the development of the Kielce economy by exploiting the existing potential and competitive advantages of the city and link the city of Kielce and other municipalities in the Kielce metropolitan area into a coherent, clean and functional whole, at the same time preserving environmental and planning values. Analysis of the structure of the Kielce business shows that still the dominant group of companies are traders, who are flexible in the market but cannot become a driving force that can propel the economy of the city and the region.

Looking at the development of the city of Lublin in the context of the needs and talents of stakeholders allows you to see the main concern of local and regional authorities, which is the liquidation of local shortages and the use of existing resources. In this two-fold way, the city tries to ensure that, as far as possible, its stakeholders have become its beneficiaries, because then they will want to be involved with and contribute to the prosperity of the local community. The attractiveness of Lublin for investors depends on a number of factors presented in other strategic areas. An important element of this policy is to promote the city's economic cluster and network initiatives. Multi-specialization is now one of the most promising strategies for the economic development of Lublin. Its effectiveness is due to the Interprofessional Relations, generating additional synergies. A key element in this process is to diagnose the economic potential of the city.

Rzeszow main strategic objectives for the development of the city are: the creation of favourable conditions for the development of the metropolitan area as an attractive place for doing business and the development of higher education, science and culture, the improvement of the living conditions of the residents and the state of public security, as well as the development and improvement of the functioning of the system of communication and technical infrastructure and intensification of efforts to exploit the development opportunities arising from the position of Poland in relation to the economic activity band in Europe, including in particular the Leipzig – Kiev band, by creating conditions for the development of trade with the countries of Central and Eastern Europe and the countries of Southern Europe.

As the development strategies of six provincial cities show, development of the sectors of the knowledge-based economy and modern communication technology and the development of a comprehensive system of support for small and medium-sized enterprises, in the context of innovation, are the main challenges Polish local authorities must face.

3.7. Conclusions

To sum up, new opportunities for growth are associated with the delivery of new products and services, which are the result of technological breakthroughs, new processes and business models, non-technological innovation and innovation in the service sector, together with a driving force in the form of creativity, skills and talents, in other words, as a result of broader innovation. To develop these capabilities we should put a strong emphasis on them in the economic policy and strategy, whose goal is to meet the challenges, such as ageing, energy security, climate change, including the management of the risks associated with natural disasters, as well as social inclusion, which would require finding a breakthrough innovation. To take full advantage of these favourable conditions to achieve economic prosperity and a high quality of life, governments across Europe have to actively engage in promoting strategies for stimulating economic growth, especially the research and innovation strategy. A gradual improvement in the economic situation now allows Europe to focus on stimulating growth while maintaining the pace of reform in order to ensure a sustainable economic recovery⁷⁹.

In Poland, in the next few years, it is planned to accelerate changes in the Polish area related to the development and modernization of the socio-economic environment, among others increasing concentration of the functions of national and European centres situated in the basic network of centres of growth and intensification of functional links between them, or populating developing regions with people leaving rural areas and small urban centres⁸⁰.

It is worth to put emphasis on the ways to use as much as possible the potential of research and innovation as a driving force to restart economic growth by improving the quality of investment under the favorable economic growth budgetary consolidation strategy adopted in the member states of the EU⁸¹.

Understanding, learning and creating new social or economic values are innovations⁸². They are the result of a common internal feeling across society

⁷⁹ Wider: Conte A., *Efficiency of R&D spending at national and regional level*, (Efektywność wydatków na szczeblu krajowym i regionalnym przeznaczonych na badania naukowe i rozwój), Wspólne Centrum Badawcze, Komisja Europejska Europejska, 2014, w *przygotowaniu*; Ciriaci D., Moncada P., Castello P., Voigt P., *Innovation and job creation: a sustainable relation?; Dokumenty robocze IPTS o działalności w zakresie badań naukowych, rozwoju i innowacji prowadzonej przez korporacje*, seria nr 1/2013, Komisja Europejska.

⁸⁰ Comp. *Koncepcja Przestrzennego Zagospodarowania Kraju 2030*, Ministerstwo Rozwoju Regionalnego, Warszawa 2012, p. 10.

⁸¹ Comp. Komunikat (...), op. cit.

⁸² Wider: Gollin M. A., *Driving innovation*, Cambridge University Press, Londyn 2008, p. 115-128.

and the need to change the world for the better⁸³. What is more, from the point of view of the theory of management, the collection of information by the entity (as well as the financial, physical and human resources) belongs to the power supply, together with planning as well as organizing, leadership and control⁸⁴.

Because budget conditions continue to be hard, it is crucial to distribute public expenditure in such a way as to produce the best results, which can be achieved by improving their quality. Public investment must, therefore, go hand in hand with large scale reforms, research and innovation systems, which can be used, among others, to increase the role of public expenditure as a catalyst for private investment. Increasing the efficiency of expenditure on research and innovation will contribute to the improvement of the overall quality of public funding. It will enable a better use of scarce resources, and thus will also bring long-term improvements, allowing for the increase in the value of the results of activities in the field of research and innovation. Cross-cutting activities undertaken in order to improve the efficiency of the policy include the regular review of public expenditure or budgeting forces aimed at improving results. From the analysis of individual countries (France, Austria, Sweden and the Netherlands), it appears that the member states that have adopted such an approach were able to achieve significant and measurable success in terms of transparency, efficiency and budget savings without reducing the quality of public services and even by its increase⁸⁵.

For the above presented topic of the article, the hypothesis has been put that the pace of innovation in Polish economy is low. Having performed the analyses it can be claimed that our country in European comparisons compares quite well. After all, Poland, in terms of the value of GDP per capita expressed in purchasing power parity, in the researched period was in 10th place among 28 countries belonging to the European Union. However, if it comes to the internal situation in our country there are clear imbalances, especially comparing Warsaw with other cities. The capital is the driving force of the development – economic results on its territory are several times higher than in other cities. This creates a definitely better situation when it comes to innovation. However, even the Eastern Polish cities are trying to deal in a creative and flexible way with historical and natural problems.

Co-operation between the entities in the context of a specific

⁸³ Wider: Rogoziński K., Panasiuk A. (ed.), *Zarządzanie organizacjami usługowymi*, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań 2012, p. 207-217.

⁸⁴ Wider: Błaszczuk D.J., *Zarządzanie ryzykiem w świetle teorii kierowania*, *Zarządzanie Ryzykiem* Nr 26 (2008), p. 95-105.

⁸⁵ Comp. Komunikat (...), op. cit.

community would be the impulse to the formation of *local governance*, i.e. local communities involving different entities of the territory⁸⁶. According to Jerzy Stepien, the Western paradigm of territorial self-government stresses – in accordance with the European Charter of Local Government – the sense of belonging to one community and the participation of citizens in the life of this community, where political strategic decisions are taken collectively, with a clear distinction between the political (election) and administrative level (civil service). In contrast, the Eastern model of public authority prefers primarily single decision-making bodies, without distinction between the political and administrative sphere. Our local government stays on the verge of a civilization division, on the one hand, the city fathers rule paradigm, and, on the other hand, a vision of the rule of one person as the host. Western elements still include the legal entity of the community and the category of municipal property, different from the national state property. Moreover, local budgets are separate from state budgets and there is a rule of legal supervision over it although some people have already claimed that sometimes the central government should interfere if the decisions of local authorities are not appropriate⁸⁷.

Local government's tendency to innovation means the ability of the community to come closer to more mature governments and adapt their development mechanisms. It would be beneficial to confront Polish communities with communities of other European countries. The effectiveness of the functioning of the economic entity depends on the quality of human capital. In the case of local government units, the innovative attitude among residents and educational institutions results in new ideas, solutions which build a sustainable competitive advantage. It will be worth, therefore, by means of appropriate measures, to constantly diagnose the focus on efficiency in Polish local communities.

⁸⁶ Wider: Ostrom E., *Governing the commons: the evolution of institutions for collective action*, Cambridge University Press, Cambridge, New York 2008, p. 61-110; Porras J.I., Collins J., *Building your company's vision*, Harvard Business Review, wrzesień - październik 1996; Dolnicki B (p.r.), *Partycypacja społeczna w samorządzie terytorialnym*, Wydawnictwo LEX, Warszawa 2014, p. 44-57.

⁸⁷ Wider: Stępień J., *W poszukiwaniu współczesnego kształtu samorządu terytorialnego*, [in]: *Polska – 25 lat samorządu terytorialnego*, Ruch prawniczy, ekonomiczny i socjologiczny, z. 3, 2015, p. 60-63 and Gawroński H., *Zarządzanie publiczne w polskich samorządach terytorialnych*, Wydawnictwo Państwowej Wyższej Szkoły Zawodowej, Elbląg 2014, p. 11-45.

Karlo Kostanjevec⁸⁸

4. Public enterprises in Croatia: The difference in effectiveness between public and private companies

Introduction

The role and importance of state ownership and public enterprises⁸⁹ have changed throughout history. Historically, public enterprises began to play an active role since 1929 (the Great Depression), as an active instrument of the economic recovery. This trend still continued during and after the Second World War, when in many countries public companies were the foundation of the post-war reconstruction. In the 1970s, due to raising awareness about their inefficiency⁹⁰, large proportions of state-owned enterprises were privatized. This privatization trend was particularly visible after the fall of communism in former socialist countries⁹¹. In addition to political and ideological motivation for the establishment of state-owned enterprises, according to Toninelli⁹², there are three key reasons for their existence: market failure, promoting economic growth based on long-term planning, and industrial-financial rehabilitation as a consequence of the economic crisis.

The public sector in Croatia is composed of general government and public enterprises (see Figure 4.1)⁹³. This demarcation of the public sector follows the definitions of the United Nations' System of National Accounts⁹⁴. The general government includes: (i) all units of central, regional and local governments; (ii) all funds of social security at all levels of government; (iii) all

⁸⁸ MA in Public Policy, Central European University, Budapest. European Commission, DG Regio, e-mail: kkostanjevec7@gmail.com

⁸⁹ In this chapter the term "public enterprises" will be used interchangeably with the terms "public companies" or "state (owned) enterprises".

⁹⁰ World Bank (2010) states that the problems of public enterprises often include unclear ownership objectives, weak governing institutions, low levels of transparency and disclosure, unprofessional boards of directors and poor relations among share and stakeholders.

⁹¹ Crnković, Boris, Požega, Željko, Sučić, Goran, State ownership and corporate governance of enterprises in Croatia, Faculty of Economics in Osijek, 2014, p. 624.

⁹² Toninelli, P., The rise and fall of state-owned enterprise in the western world, Cambridge University Press, 2000.

⁹³ Bejaković, Predrag, Vukšić, Goran, Bratić, Vjekoslav, Veličina javnog sektora u Hrvatskoj. Sustavi javne uprave, 2010; and Bajo, Anto, D. Jurlina Alibegović: Javne financije lokalnih jedinica vlasti. Institut za javne financije, Školska knjiga, Ekonomski institut, 2008.

⁹⁴ United Nations (UN): The System of National Accounts (SNA), UN, 2016.

non market and non-profit institutions controlled and mainly financed by government units. On the other hand, public enterprises are defined as "resident corporations and quasi-corporations controlled by government units, where control is defined as the ability to determine the general corporate policy by choosing appropriate directors, if necessary"⁹⁵.

This chapter is focused on Croatian public enterprises. Public enterprises in Croatia are performing various state tasks and implementing financial transactions on the demand of the owner (the state and its units). According to the Budget Law⁹⁶ they are defined as legal entities in majority direct or indirect state ownership. This general definition is too ambiguous and does not clearly state the objectives of the companies or responsibilities of the state as an owner. Moreover, some public companies (such as the Zagreb stock exchange d.d., or the Money market d.d.) are considered public by some authors, disciplines (legal as opposed to economic views) and state institutions while other see them as private⁹⁷. As seen in Figure 4.1, public companies in Croatia include: financial public companies (which include monetary and non-monetary companies) and non-financial public companies⁹⁸.

Financial monetary public companies include all state-owned financial companies, quasi-financial companies and commercial non-profit institutions with the main task of financial intermediation. Examples include the Croatian National Bank (HNB) and the Croatian Bank for Reconstruction and Development (HBOR). Non-monetary financial public companies are all state-owned financial companies performing supplementary activities related to financial assets and the liabilities or transformation of financial assets. Examples include the Croatian agency for supervision of financial services (HANFA) and the Financial agency (FINA). Non-financial public companies in Croatia are providing services of special state interest and importance for implementing the social-economic policy of the government. These public enterprises are present in various sectors, such as: traffic, infrastructure, energy and other services of wider economic and social interest. Examples of non-financial public companies include the Croatian Post, Jadrolinija, the Croatian Electric Company (HEP) and the Transmitters and Connections company.

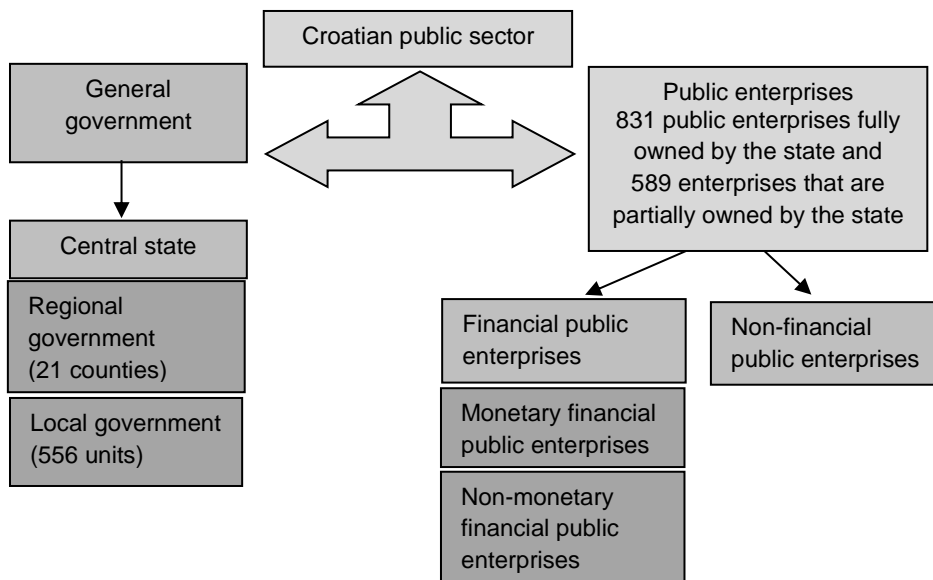
⁹⁵ UN: SNA, 2016.

⁹⁶ Budget Law, 2015.

⁹⁷ Bejaković, Vukšić, Bratić, Veličina javnog sektora, 2010.

⁹⁸ Bejaković, Vukšić, Bratić, Veličina javnog sektora, 2010; Bajo, Alibegović, Javne financije, 2008.

Figure 4.1
Croatian public sector



Source: Bejaković, Vukšić, Bratić, Veličina javnog sektora, 2010.

4.1. Public enterprises in Croatia

After the fall of socialism and the collapse of Yugoslavia, the privatization process in Croatia started in the early 1990s through transformation and privatization. The privatization process was complex due to the fact that it took place in a transitional and war environment and it also had to take into account political, social and economic goals. In other words, Croatia went through a complicated transition, dominated by state- and nation-building, the war for independence and the building of market economy. The model of privatization in Croatia was mostly privatization “from case to case”⁹⁹. Very often the process had a role of a social programme, for example, through free allocation of shares to social groups that had suffered most through privatization and in war (war veterans, unemployed, refugees)¹⁰⁰. From 1991 until now, the process of transformation and privatization covered slightly less than 3000 of the former socially-owned enterprises. However, Crnković et al. conclude that “despite the large number of companies included in the transformation and privatization, the overall progress of the Republic of Croatia in the entire process is extremely

⁹⁹ Crnković, Požega, Sučić, State ownership and corporate governance of enterprises in Croatia, 2014.

¹⁰⁰ Crnković, Požega, Sučić, State ownership and corporate governance of enterprises in Croatia, 2014.

weak”¹⁰¹. Vizek also mentions the problem of limited and never finished privatization of loss-making public companies which was planned since the Stabilization programme in 1993¹⁰².

More than two decades since the beginning of the privatization in Croatia, the private sector share in the Croatian GDP is still too small. The Croatian economy is still marked by a poor business climate, low competitiveness of the economy and a pervasive role of the state in the economy¹⁰³. The Croatian economy is less competitive than its peers, which is especially visible in the fact that in the 2007-2013 period, Croatia’s private sector share of GDP remained at 70% - lower than its EU peers¹⁰⁴. One of the main factors contributing to this excessive role of the state in the economy is the large number of enterprises that have remained in state ownership¹⁰⁵.

Despite the fact that the data on the number of state-owned enterprises changes very frequently and it seems that the state itself is not sure in how many enterprises it has a share¹⁰⁶, some data on the number of fully or partially state-owned enterprises in Croatia is available. According to the data provided by the Croatian Financial Agency (Fina), Croatia has as many as 1420 public companies in total¹⁰⁷, which represents 1,5% of all enterprises in Croatia. There are 831 public companies/enterprises fully owned by the state and 589 companies that are partially owned by the state (out of this 589, 191 are in majority ownership of the state)¹⁰⁸. Public enterprises in Croatia are most often large enterprises, with the position of natural monopoly and most often in the non-tradable sector. Moreover, they are usually excluded from the open international economy and competition; and with the tendency to

¹⁰¹ Crnković, Požega, Sučić, State ownership and corporate governance of enterprises in Croatia, 2014, p. 628.

¹⁰² Vizek, Maruška: Poslovanje javnih poduzeća i njihov značaj za ekonomsku aktivnost u RH. Skup u organizaciji Lipe-udruga poreznih obveznika, 2015.

¹⁰³ World Bank, Country Overview: Croatia, 2015

¹⁰⁴ World Bank, Country Overview: Croatia, 2015

¹⁰⁵ Crnković, Požega, Sučić, State ownership and corporate governance of enterprises in Croatia, 2014.

¹⁰⁶ As will be obvious later in the text, various sources often claim a different number of state companies and employed people in those companies.

¹⁰⁷ Vizek, Poslovanje javnih poduzeća u RH, 2015.

¹⁰⁸ Another state source mentions different numbers of the public enterprises in Croatia for approximately the same time period. According to the data from Strategy of state assets in 2013 quoted in Crnković, Požega, Sučić (2014, p. 628) “in the portfolio of the Republic of Croatia there were 631 enterprises. Out of these 631 enterprises, 555 of these is in the minority state ownership (up to 49.99% of shares), 61 enterprise is in majority state ownership (over 50% of shares), while 15 companies are not active”. On the other hand, Bajo and Primorac (2015, p.6) mention that there are more than 1000 public enterprises in Croatia. Therefore, it seems that the state and academia are not sure how many public enterprises there are in the Croatian economy.

decrease in competitiveness and decrease in export¹⁰⁹.

Instead of decreasing in recent years, the number of companies with partial or full state ownership even increased due to the replacement of debt for ownership in the framework of a bankruptcy settlement. It is clear that “in Croatia, state-owned enterprises represent a significant portion of the GDP, employment and market capitalization”¹¹⁰. Altogether, in 2015, the state assets in public companies worth 347 billion HRK (Croatian Kuna, which is around €46 billion), generate 171 billion HRK or revenues (around €27 billion) and have expenditures of 165 billion HRK (around €22 billion)¹¹¹. These expenditures / revenues represent around 50% of the Croatian GDP. Moreover, annual expenditures of public companies in Croatia are HRK 30 billion (€4 billion) larger than the general government budget¹¹². The European Commission reports that state owned enterprises in Croatia represent 18% of the total turnover and 30% of total assets in the economy¹¹³. Vizek reports slightly higher numbers: public enterprise assets represent around 41% of the total assets of the business sector and 28% of all revenues of the business sector in Croatia¹¹⁴. In any case, state and public enterprises represent a significant part of the economy. The state is heavily present in the utilities/energy sector and transportation, where the share of employees working for the state-owned enterprises in 2012-2013 reached 79% and 45%, respectively¹¹⁵. Other sectors with significant state presence include information and communication (14%), construction (8%) and manufacturing (6%)¹¹⁶. Regarding the financial results and the situation in public companies, Bajo and Primorac¹¹⁷ report the data for the 28 largest public companies. The highest net profit (around €137 million) and revenues (around 40% of the total) is generated by companies in the energy sector. Most of the assets are in the transport sector (around 66%). Regarding profits, after the energy sector, the sector of water and forestry generates €10 million, while postal and communications produce €7 million. However, the transport sector is making a loss of €73,6 million. The energy sector remains dominant in terms of business success and is the only one that can implement new investments without major borrowing¹¹⁸.

¹⁰⁹ Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹¹⁰ Crnković, Požega, Sučić, *State ownership and corporate governance of enterprises in Croatia*, 2014, p. 628.

¹¹¹ Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹¹² Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹¹³ The European Union, European Commission (EC), *Croatia Country Report*, 2016.

¹¹⁴ Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹¹⁵ EC, *Croatia Country Report*, 2016.

¹¹⁶ EC, *Croatia Country Report*, 2016.

¹¹⁷ Bajo, Anto; Primorac, Marko, *Major Public Enterprises in Croatia*. Working paper CIRIEC, 2015.

¹¹⁸ Bajo, Primorac, *Major Public Enterprises in Croatia*, 2015.

Among the ten largest individual companies in Croatia, six have a certain proportion of state-ownership (see Table 4.1). Large public enterprises with a significant part of state ownership are: INA (Industry of Oil) in which the state has 47% of the ownership and HEP (Croatian Electric Company), HEP – Operator and HEP Production which are in 100% ownership of the state¹¹⁹. Other sources¹²⁰ also emphasize the large role of the state-owned companies in the economy: on the list of the 85 largest companies operating in Croatia, 35 are foreign owned, 29 in domestic private enterprises while 21 are state-owned.

Table 4.1
The largest companies in Croatia in 2013

No.	Company
1.	INA
2.	Konzum
3.	HEP
4.	HEP - Operator
5.	HT
6.	Petrol
7.	HEP - Production
8.	PLIVA Croatia
9.	Plodine
10.	Lidl

Source: Privredni vjesnik, the 400 largest companies in Croatia, 2013.

4.1.1. Employment issues in Croatian public enterprises

In 2012 public enterprises in Croatia employed around 140 000¹²¹ people¹²². If this number is put in the context of the total employed people in Croatia (1.086.421 people) according to the data reported by the Bureau of

¹¹⁹ Bajo, Primorac, Major Public Enterprises in Croatia, 2015.

¹²⁰ Crnković, Požega, Sučić, State ownership and corporate governance of enterprises in Croatia, 2014.

¹²¹ The number of employed people in public enterprises in Croatia is also not certain. For example, Bejaković, Vukšić and Bratić (2010, pp. 116-117) state that the Ministry of Finance reported in 2008 only around 71 000 employeeed people in Croatian public enterprises – this shows that the Ministry of Finance tracks only a part of the work force employed in public companies. For the same year, ILO (International Labour Organization) managed to cover all public enterprises in Croatia and it reported 204 000 employed people in Croatian public enterprises (International Labour Organization (ILO), Public Sector Employment in Bejaković, Vukšić, Bratić, 2010). Paradoxically, this shows that international organization (ILO) has more comprehensive overview of employed people in Croatian public enterprises than the Croatian Ministry of Finance, which only has the data on non-financial public enterprises.

¹²² Bajo, Primorac, Major Public Enterprises in Croatia, 2015.

Statistics, this amounts to 12,9% of the total employment in the country¹²³. Approximately, this is also the percentage which the European Commission reports in its last report on Croatia¹²⁴. However, Nestić, Rubil and Tomić report that, in the 2004-2012 period, the public sector (general government) employed on average around 23%, the private sector employed around 55% and public enterprises employed around 21,5% (in 2012 this share was slightly lower, 19,6%) of the total employed persons in Croatia¹²⁵.

These differences in the numbers show how unclear and non-transparent the situation is in Croatian public enterprises regarding the basic data on their business and employment. Furthermore, Nestić, Rubil and Tomić report some other interesting data regarding the length of service of employees in public enterprises for the year 2012. Namely, they have the longest length of service, compared to the general government (17 years), and especially compared to the private sector (11 years) which amounts to 24 years on average¹²⁶. This shows that the dynamics of the employees in public enterprises is very low, despite all the changes that the world and the Croatian economy are going through in recent decades. Moreover, in 2012 more than 16% of employees in public companies are on some kind of managerial function (compared to 11% in the private sector), while 94% of employees have contract agreements of an indefinite period (compared to 85% in the private sector)¹²⁷.

4.1.2. Croatian public enterprises as a main component of political spoils system

Public enterprises in Croatia are a significant political issue, i.e. they probably represent the most important part of the political spoils system in Croatia¹²⁸. Croatia presents the best example of a country where “public companies are a source of political power”¹²⁹. Although public enterprises represent such a large and important part of the overall economy, Vizek concludes that they don’t have clear goals and are often controlled by politics,

¹²³ Croatian Bureau of Statistics, 2016.

¹²⁴ EC, Croatia Country Report, 2016

¹²⁵ Nestić, Danijel; Rubil, Ivica; Tomić, Iva, Analiza plaća u javnom i privatnom sektoru u Hrvatskoj. Ekonomski institut Zagreb, 2014.

¹²⁶ Nestić, Rubil, Tomić, Analiza plaća, 2014.

¹²⁷ Nestić, Rubil, Tomić, Analiza plaća, 2014.

¹²⁸ Spoil system is a common system of „rewards“ for supporters of a political party which is taking the office/power. Oxford dictionary (2016) is defining the spoil system as „the practice of a successful political party giving public office to its supporters“.

¹²⁹ Vizek, Poslovanje javnih poduzeća u RH, 2015.

which represents the main obstacle toward good governance¹³⁰. Political parties in Croatia have the possibility to directly appoint members of management and supervisory boards in 1,022 companies wholly or majority owned by the state. During four years in office, political structures have the opportunity to employ 20,000 people¹³¹. Therefore, no political party is interested in proposing the professionalization of the management of public enterprises' and those enterprises often do not have expert management. Also, this is the main source of non-transparency regarding the number of employed people in public companies.

The fact that public enterprises in Croatia are used for a political spoils system and sinecures – which has a consequence of overstaffing in those companies – is backed by the research of Bejaković, Bratić and Vukšić¹³². In their comparative research they examined whether Croatia has an oversized public sector in comparison to other European Union (EU) countries and other Central and Eastern Europe (CEE) countries. In their research, Bejaković, Bratić and Vukšić find that Croatia does not have an oversized general government¹³³ sector in comparison with EU and CEE countries.

However, when it comes to the share of the employed in public enterprises of the total employment the situation is very different and shows how much the social-political purpose of public enterprises in Croatia is more accentuated than the economic purpose. Namely, when it comes to the proportion of employees in public enterprises of the total employment in EU countries in the 2005-2008 period, for which the data was available, the average share of EU countries amounted to 6,7%¹³⁴. The same share for Central-Eastern Europe (CEE) countries amounted to 8,9%. In Croatia, the share of the employed in public enterprises of the total employment was 13,8%¹³⁵. This is significantly higher than in EU and CEE countries (see Table 4.2). In the case of CEE countries, the data shows that the proportion of employees in public companies in these countries is higher than in other EU countries, which may be a reflection of a still unfinished privatization process. However, the Croatian proportion of employees in public enterprises is significantly higher than comparable

¹³⁰ Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹³¹ Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹³² Bejaković, Predrag; Bratić, Vjekoslav; Vukšić, Goran, *Komparativna analiza zaposlenosti i naknada za zaposlene u javnom sektoru u Hrvatskoj i u Europskoj uniji*, Institut za javne financije, 2010.

¹³³ As already stated, in the context of this chapter, general government does not include public companies, but i) all units of central, regional and local governments; (ii) all funds of social security at all levels of government; (iii) all non market and non-profit institutions controlled and mainly financed by government units.

¹³⁴ Bejaković, Bratić, Vukšić, *Komparativna analiza*, 2010.

¹³⁵ Bejaković, Bratić, Vukšić, *Komparativna analiza*, 2010.

countries of the CEE region. Given the relatively large share of employees in public companies and their higher than average wages (which will be discussed later), Bejaković, Bratić and Vukšić warn of some negative consequence of this, such as: the potentially negative effects on the private sector, the lack of experts in the private sector and crowding out of the private sector, especially if one considers that at least some activities carried out by public enterprises can be performed by the private sector. However, Bejaković, Bratić, Vukšić also warn that, since different countries may have different definitions of public companies, it is necessary to emphasize the potential problems of incomplete comparability of the data¹³⁶. Nevertheless, the conclusion that public enterprises in Croatia employ more than public enterprises in the EU and in peer CEE countries is still valid.

Table 4.2

The share of employees in public enterprises in total employment, in %¹³⁷

	The share of employees in public enterprises in total employment, in %
Spain	0,87
United Kingdom	1,24
Ireland	2,10
Cyprus	2,75
Denmark	2,99
France	2,99
Malta	3,44
Estonia	3,85
Germany	4,08
Czech Republic	6,73
Lithuania	6,99
Latvia	7,93
Bulgaria	10,00
Slovenia	10,75
Slovakia	11,15
Netherlands	11,22
Croatia	13,80
Greece	13,88
Poland	15,01
European Union average	6,7
Central European countries average	8,9

Source: Bejaković, Bratić, Vukšić: 2010.

¹³⁶ Bejaković, Bratić, Vukšić, Komparativna analiza, 2010.

¹³⁷ The data for Austria, Belgium, Finland, Italy, Luxembourg, Hungary, Portugal, Romania and Sweden were not available (Bejaković, Bratić, Vukšić, 2010).

4.1.3. Lack of goal-planning and the public enterprises' burden on the Croatian budget

There is a lack of medium and long-term goal planning in Croatian public enterprises, while nomination and appointment of members of management and supervisory boards are non-transparent. Missions are most often poorly articulated, often boiling down to the definition of the main goals and tasks¹³⁸. Insufficiently clearly profiled missions are mainly a result of the lack of clearly defined strategic goals at the national level. Problems with the nonexistence of a clear mission (and vision) are most obvious in the context of capital investments¹³⁹. Moreover, public enterprises (especially in the transport, utilities and communication sectors) are users of numerous subsidies, grants, government guarantees and debt reliefs (especially for tax debts)¹⁴⁰.

One of the biggest issues arising from the problematic situation in Croatian public enterprises is the fact that the state is allocating large funds in the form of grants and subsidies to public enterprises. On average, the state annually grants around 1,9% of GDP of guarantees for borrowing, out of which 1.2% of GDP goes to the transport sector¹⁴¹. Since 2011, most of the guarantees have been granted to companies engaged in the construction, maintenance and management of highways. In addition to guarantees, the state intensely awarded state aids in the form of subsidies (mostly to the rail transport sector), which amounted to 2% of GDP in 2014¹⁴². These levels of grants are still significantly higher than the EU average. This is also confirmed by the European Commission which concludes that public companies markedly underperform private companies and continue to weigh on public finances¹⁴³. EC states that public companies are major generators of growth of public debt. This is due to the usual practice that the state issues guarantees for public companies to borrow, and then takes over the debts of public enterprises in problems such as HAC (Croatian Highways), Croatian Railways, Croatia Airlines¹⁴⁴. Moreover, these grants and subsidies are not investments in the infrastructure, rather support for the operations of enterprises which cannot survive without the government assistance. Due to increasing pressure on public finances, restructuring and privatization has been announced¹⁴⁵.

¹³⁸ Bajo, Primorac, Major Public Enterprises in Croatia, 2015.

¹³⁹ Bajo, Primorac, Major Public Enterprises in Croatia, 2015.

¹⁴⁰ Bajo, Primorac, Major Public Enterprises in Croatia, 2015.

¹⁴¹ Bajo, Primorac, Major Public Enterprises in Croatia, 2015.

¹⁴² Bajo, Primorac, Major Public Enterprises in Croatia, 2015.

¹⁴³ EC, Croatia Country Report, 2016.

¹⁴⁴ EC, Croatia Country Report, 2016.

¹⁴⁵ Ćimić, Index.hr, 2016.

Consequently, due to the described deficiencies, public companies in Croatia are one of the main generators of difficulties in the Croatian economy. They represent one of the main factors which is delaying reforms in the Croatian economy; they promote political management of the economy and inefficiency due to their lack of profitability (despite the fact that many public companies are monopolies). Moreover, public companies in Croatia create an uncompetitive market structure and generate an inwardly sclerosing orientated economy. Due to their size and number, they are the main cause of the dominant role of the state in the economy. Furthermore, public enterprises in Croatia promote domestic public consumption and hinder focus on export and competitiveness. These conclusions are also recognized by the European Union. The European Commission¹⁴⁶ concludes the following: Croatian public companies are a source of fiscal risk for public finances; they have exceptional importance for the economy, but an inadequate management framework while the supervision of public enterprises is fragmented. Moreover, the EC states that the inefficiencies in state-owned enterprises slow down the adjustment process. Regarding transparency, the system of monitoring, analyzing and reporting on business operations has been established only since 2014. Although the accountability and transparency in state owned enterprises has improved, the situation with minority state-ownership is still unclear. The results of these are: economic inefficiency, higher total aggregate price level, corruption, de-motivation of entrepreneurship, and deterioration of international competitiveness.

4.2. Croatian public enterprises in a comparative perspective

In order to put Croatian public enterprises in a comparative perspective, it is useful to present data regarding the entrance and exit of private enterprises on/from the market of post-social CEE states.

From Table 4.3 it is visible that Croatia, among its peer countries, has by far the lowest rate of entry and exit of enterprises from the market. There is a lack of “creative destruction” on the market in Croatia. It is often the case that non-efficient and less competitive companies (such as public companies) stay artificially long on the market (e.g. through subsidies and grants) and some innovative, productive (compared to public companies) and young private companies go bankrupt¹⁴⁷. Therefore, public companies and their suppliers often contribute to the non-functioning of the market mechanisms in Croatia¹⁴⁸. This is

¹⁴⁶ EC, Croatia Country Report, 2016.

¹⁴⁷ Vizek, Poslovanje javnih poduzeća u RH, 2015.

¹⁴⁸ Vizek, Poslovanje javnih poduzeća u RH, 2015.

backed by the fact that the European Commission in its last report states that Croatian public companies markedly underperform private companies regarding productivity¹⁴⁹. Table 4.4 shows this productivity comparison.

Table 4.3
Rate of entry and exit from the market of private enterprises in post-socialist countries

Country	The rate of entry (in %)	The rate of exits (in %)
Bulgaria	14,5	9,6
Czech Republic	9,2	8,9
Latvia	16,6	13,3
Lithuania	18,6	26,8
Hungary	9,8	10,9
Poland	13,1	10,4
Romania	10,9	14,2
Slovenia	10,9	7,5
Slovakia	14,9	11,6
Croatia	5,5	6,5

Source: lootty, 2015.

Table 4.4
Productivity comparison of public and private enterprises in Croatian economy, 2014-2015

	Public enterprises	Private enterprises
Return on assets (average 2011-2012)	0,04 %	0,13 %
Revenue per employee	538.647 HRK	713.226 HRK
Gross value added per employee	3540 HRK	4626 HRK
Assets per employee	2.509.593 HRK	1.022.242 HRK
The share of expenditure for employees in total expenditures	21%	14%
The share of exports in total revenues	6%	16%

Source: Vizek, 2015.

From table 4.4 it is visible that Croatian public enterprises are visibly less productive than Croatian private companies. This is particularly visible in the following: return on assets in the private sector is 0,13%, while in public enterprises it is 0,04%. Although the ratio between assets and employees is much higher in public enterprises, gross value added per employee in the private sector is HRK 4626 (around €615), while in public enterprises it is just HRK 3540 (around €470). It is also visible that the share of expenditure for employees in public enterprises is visibly larger than in private companies. Also, public companies are less oriented to export. Moreover, the recent trend is that these differences in productivity are becoming larger. Among others, this is visible in the following: export of private companies is increasing while

¹⁴⁹ EC, Croatia Country Report, 2016.

export of public companies is decreasing since 2008; expenditure in public companies remained at the same level, while expenditure in private companies reduced by 10% since 2008; regarding revenues and profitability, small and medium sized public companies are not profitable, while large public companies are, but this is most usually based on their monopolistic position¹⁵⁰. In summary, Vizek concluded that Croatian public enterprises are less productive than private companies by approximately 30%¹⁵¹.

Nestić, Rubil and Tomić¹⁵² report very useful data (see Table 4.5) regarding working hours, average wages and recent growth of real wages in private and public enterprises. Table 4.5 shows that employees in public enterprises work 1 hour and 20 minutes (per month) less than employees in companies in the private sector. Moreover, in 2012, employees in public companies had on average HRK 750 (around €100) higher wages than employees in the private sector. In the 2004-2012 period, the average wage in public companies was higher than in the private sector between 17% and 21%, depending on the year which is observed. Further, in the 2008-2012 period, the highest wage increase (despite the economic downturn due to the recession) happened in public companies (in real terms: +2%), while the increase in the private sector was obviously lower (in real terms, only: +0,4%).

Table 4.5

Working hours and average wages in the private sector and public enterprises, 2012

	The private sector (year 2012)	Public enterprises (year 2012)
Working hours (monthly)	170,6	169,3
Average (real) monthly wage	HRK 4203	HRK 4945
Growth of (real) wage per hour 2012/2008	0,4%	2,0%

Source: Nestić, Rubil, Tomić, 2014.

Even when the differences between employees are taken into account (such as education, length of service, the region of the workplace, the size of the employer, occupation) with the help of regression analysis, there are still unexplained differences between wages in the private sector and in public companies. Namely, in 2004 the premium on the wage in a public company amounted to 10%, and in 2012 it amounted to between 7% and 8,8%¹⁵³. When

¹⁵⁰ Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹⁵¹ Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹⁵² Nestić, Rubil, Tomić, *Analiza plaća*, 2014.

¹⁵³ Vizek (2015) concludes that the differences are even larger and that public companies have on average around 30-40% higher wages than private sector.

these differences are put into comparative perspective¹⁵⁴, there is a larger difference in salaries between public companies and the private sector (in favour of public companies) in Croatia than in other EU countries. Reported data show that the wages in public companies are not too much related to the efficiency and productivity, that Croatia has above average difference between wages in public and private companies and that there is a clear wage rigidity in Croatia in all sectors, but particularly in the public sector¹⁵⁵.

These conclusions are also in line with the assessments of the European Commission in their latest report¹⁵⁶. The European Commission states that Croatian public enterprises do not have well-defined profitability targets. Moreover, the profitability of public corporations in terms of return on assets and return on equity is, in the long term, significantly lower than in private corporations. In 2014, allowing for size and field of activity, the average return on assets was barely positive in public companies, compared with an average return of 4,5% in private companies. Furthermore, the return on equity in 2014 was five times lower than in private companies. The most probable reason is the comparatively high labour costs. Although the proportion of public companies in turnover decreased from nearly 40 % in 2010 to 33 % in 2014, it remains well above the 21% share of comparable private companies¹⁵⁷. Regarding the indebtedness, in comparison with the private sector, public companies in Croatia have a lower rate of long-term debt and a lower rate of high-risk profile debt, but they have more serious problems with short-term liquidity¹⁵⁸. However, when only public non-financial companies were taken into consideration, their leverage ratio was around 40% higher than private companies of comparable size, both when assessed relative to a company's ability to generate earnings and capital employed¹⁵⁹.

Summary

Croatian state-owned enterprises represent a significant part of the economy, employment, assets and market capitalization, particularly when compared to other EU and peer countries. Companies owned by the state are particularly prevailing in energy and transport. However, they represent one of the main long-term problems of the Croatian economy due to the fact that they are loaded with inefficiency, overstaffing, uncompetitiveness, non-transparency

¹⁵⁴ Nestić, Rubil, Tomić, *Analiza plaća*, 2014; and de Castro, Francisco; Salto, Matteo; Steiner, Hugo, *The gap between public and private wages, new evidence for the EU*. European Commission, 2013.

¹⁵⁵ Nestić, Rubil, Tomić, *Analiza plaća*, 2014; and de Castro, Salto and Steiner, *The gap*, 2013.

¹⁵⁶ EC, *Croatia Country Report*, 2016.

¹⁵⁷ EC, *Croatia Country Report*, 2016.

¹⁵⁸ Vizek, *Poslovanje javnih poduzeća u RH*, 2015.

¹⁵⁹ EC, *Croatia Country Report*, 2016.

and ambiguous goals. Also, numerous large public companies are crowding out private companies. These issues become particularly visible when private and public enterprises in Croatia are compared. This indicates that, in order to increase the efficiency and productivity of Croatian public companies, market principles of the private sector (private companies) should be introduced or enhanced.

Beata Detyna¹⁶⁰, Jerzy Detyna¹⁶¹

5. Multidimensionality of management efficiency – measurement proposal in public administration

5.1. Introduction

Developing a modern concept of *New Public Management*, which focuses on the search for economically and organizationally effective principles of system operation in public administration, created a marked increase of interest in methods used in management practice¹⁶². Interdisciplinarity and, observed in social sciences, diffusion of knowledge contribute to the more frequent implementation of new management methods and techniques¹⁶³. In public administration the research areas of economics, science of organization and management, environmental protection, and political science are clearly permeated. Incompatibility of planned activities with real possibilities of the organizational unit is also a frequent source of problems in the management of a public institution. The discontinuity occurs between the initial arrangements and plans, and the prime mover "force" of the cooperating team may be the reason why strategies and plans become only documents symbolic (as "proof" of the activities undertaken).

Managing with a view to overcoming the phenomenon of the lack of

¹⁶⁰ Ph.D., The Angelus Silesius University of Applied Sciences in Wałbrzych, Institute of Natural and Technical Studies, beata.detyna@wp.pl, bdetyna@pwsz.com.pl

¹⁶¹ Prof., Wrocław University of Science and Technology, Faculty of Mechanical Engineering, jerzy.detyna@pwr.edu.pl

¹⁶² B. Detyna, Menedżer publiczny – jego rola w procesie poprawy jakości, [in:] *Administracja publiczna – zagadnienia prawne i koncepcje zarządzania* (No. 1), P. Borszowski, B. Detyna [ed.], Wydawnictwo Państwowej Wyższej Szkoły Zawodowej im. A. Silesiusa w Wałbrzychu, Wałbrzych 2014, pp. 166-168.

¹⁶³ K. Perechuda, Dyfuzja wiedzy jawnej i niejawniej jako instrument sieciowego zarządzania gminą, [in:] *Współczesne zarządzanie*, „Kwartalnik Środowisk Naukowych i Liderów Biznesu”, No. 2/2006, pp. 5-7.

efficiency in public administration, should continually seek effective tools that will help, not only to monitor key processes, but also allow for stronger integration between current actions and the long-term strategy of the organization. This involves such methods and tools that will be accepted by all employees¹⁶⁴, tailored to the specific nature of the services provided and the needs of stakeholders (customers, partners)¹⁶⁵, the ability of financial institutions, as well as the knowledge and skills of its entire team¹⁶⁶. Balanced Scorecard (BSC) is one of the tools for measuring the effectiveness which is successfully used in the private sector. An overall vision and strategy can be translated into operational and individual goals that are understood by employees at all levels of the organization due to this concept.

5.2. Effectiveness of management - as a multidimensional concept

The notion of effectiveness is not clear and differently defined. This term is sometimes understood, among others, as: operational efficiency, a positive result, profitability, productivity, efficiency, effectiveness, purposefulness, rationality, efficiency, capability or usability. Efficiency in economic sciences is most often described as a relationship between the effects (results of production, revenue, profit, etc.) and expenditures (costs, employment, size of assets, the size of investment, consumption of raw materials, energy, fuel, etc.). By practitioners, it is considered a key to increasing competitiveness through the ability to implement the strategy and goals of the organization¹⁶⁷. It is also an important tool to measure the effectiveness of management in the organization¹⁶⁸. Management efficiency undoubtedly has a multidimensional character. We can evaluate it in the short and the long term, micro and macro level. Economists usually consider it in relation to the allocation of resources and the functioning of economic entities (efficiency considered in the context of operating, investing, financing)¹⁶⁹. Management effectiveness, according to Elżbieta Skrzypek "depends on the applied principles and characteristics of good management"¹⁷⁰.

¹⁶⁴ M. Lam, M. O'Donnell, D. Roberson, Achieving employee commitment for continuous improvement initiatives, "International Journal of Operations & Production Management", No. 2/2015, p. 201-215.

¹⁶⁵ R. Lozano, A Holistic Perspective on Corporate Sustainability Drivers, "Corporate Social Responsibility and Environmental Management, No. 3/2015, pp. 32-44.

¹⁶⁶ E. Skrzypek, Zarządzanie wiedzą jako wymóg współczesności, „Problemy Jakości”, No. 2/2014, p. 8-12.

¹⁶⁷ E. Skrzypek, Jakość i efektywność, Wyd. Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2002, p. 190-199.

¹⁶⁸ E. Skrzypek, Uwarunkowania pomiaru i doskonalenia procesów w organizacji, [in:] Praktyka zarządzania jakością XXI wieku, T. Sikora, M. Gieźka [ed.], Wydawnictwo Naukowe PTTZ, Kraków 2012, pp. 180-186.

¹⁶⁹ K. Szczepańska, Koszty jakości, Wyd. Placet, Warszawa 2009, p. 107.

¹⁷⁰ E. Skrzypek, Jakość i efektywność, op. cit., p. 196.

Without a doubt, all organizations, including those operating in the public sector should be interested in monitoring the effectiveness of management¹⁷¹ – the effects of functions: planning, organizing, motivating and control in the context incurred for the implementation of investment (time, resources, human, material, financial, etc.).

5.3. Problem of efficiency in public administration

When describing the functioning of public administration, we can use different terms. The most frequently mentioned terms are: effectiveness, efficiency, relevance, quality. While, these terms are often incorrectly defined, their diversity is used to highlight the fact that there cannot exist only one criterion for assessing the performance of the institution. And so, the effective organization does not have to be efficient, and efficient in one respect, may not to be appropriate in another context. Effectiveness usually refers to the achievement of the desired effects (goals) in the framework of the service in "favourable" conditions and to correct the problem. Speaking about the suitability emphasizes whether it was used in the correct procedure / method to a particular customer (stakeholder), at the right time¹⁷². Efficiency whereas is a complex concept, which most often is understood as an indicator of the inputs relationship (work / cost / time) to effect (the degree of the achieved goal)¹⁷³. Functioning of the public organization can be described by terms such as: organizational efficiency and cost effectiveness. Organizational efficiency is the degree to which the aims and objectives of the organization are achieved. The essential objective pursued by the organization may consist of specific intentions (e.g. an employment coordinator for the introduction of a quality management system, a proxy for the implementation of BSC etc.), intermediate objectives (eg. reduction in staff turnover) or the final purpose (eg. reducing the number of complaints, increasing customer satisfaction)¹⁷⁴. Cost-effectiveness whereas is a composite index, which takes into account both the cost and the level of

¹⁷¹ J. Macias, Istota i rola controllingu w zarządzaniu przedsiębiorstwem, „Problemy Jakości”, No. 6/2013, pp. 15-21.

¹⁷² A. Jabłoński, M. Jabłoński, Model zarządzania regionem oparty na koncepcji zarządzania wartością regionu, „Problemy Jakości”, No. 11/2013, p. 7.

¹⁷³ B. Detyna, J. Detyna, Jakość usług medycznych. Ocena statystyczna. Podstawy metodyczne, Wyd. Difin, Warszawa 2011, p. 19.

¹⁷⁴ A. Frączkiewicz-Wronka, M. Bartnicki, Efektywność organizacyjna i zarządzanie publiczne – wyłaniające się koncepcje, kluczowe wyzwania i kierunki dalszych badań w obszarze pomiaru efektywności, „Organizacja i Kierowanie”, No. 3/2006, pp. 17-18.

purpose achievement (relational approach / relative)¹⁷⁵. The quality of public services is also seen here in the context of specific efficiency, which can be defined as one of the results of quality processes. The result of the processes quality can be the efficiency measured by performance (e.g. the number of cases processed in a given time)¹⁷⁶.

According to the theory of public choice voters are guided by their own economic interests, interest groups are looking for pensions, politicians are entrepreneurs interested in obtaining and keeping power and privileges, the officials believe in maximizing their budget and the expansion of the office. It implies that politicians and officials use their power to provide the privileges and services to voters and interest groups in exchange for their votes and support, which distorts efficient allocation¹⁷⁷. Bureaucracy, corruption, lack of competition and inappropriate ways of management of public property, which result from the non-profit nature of the units in this sector are often indicated as a source of inefficiency in the public sector¹⁷⁸. Cronyism and nepotism are also indicative of inefficiency¹⁷⁹.

The changes observed in the functioning of the public sector mean they carry with them the need to seek ways to improve management efficiency¹⁸⁰. The complexity of the structure and the institutional peculiarities of the public sector, which determines how to manage in this sector is shown in Table 5.1. The specificity clearly leads to "political" recognition of public management, which is a major factor in the "restrict" in the process of building, not only a strategy of public organization, as well as the development of the NPM concept.

It seems that the key to the knowledge of the causes of inefficiency in the public service is to know the motivation, which shall be guided by public-sector workers and institutional, cultural and legal conditions.

¹⁷⁵ U. Sulowska, Rachunek kosztów jakości narzędziem oceny efektywności systemu zarządzania jakością oraz jakości zarządzania, [in:] Praktyka zarządzania jakością XXI wieku, T. Sikora, M. Giemza [ed.], Wydawnictwo Naukowe PTTŻ, Kraków 2012, pp. 699-717.

¹⁷⁶ B. Detyna, Proces tworzenia jakości usług publicznych w społeczeństwie postindustrialnym – wyzwania stojące przed zarządzającymi, [in:] Administracja publiczna – zagadnienia prawne i koncepcje zarządzania (No. 1), P. Borszowski, B. Detyna [ed.], Wydawnictwo Państwowej Wyższej Szkoły Zawodowej im. A. Silesiusa w Wałbrzychu, Wałbrzych 2014, pp. 154-155.

¹⁷⁷ M.S. Haque, Revisiting the New Public Management, „Public Administration Review”, No. 67(1), 2007, pp. 179-183, [by:] A. Frączkiewicz-Wronka, Poszukiwanie istoty zarządzanie publicznego, [in:] Zarządzanie publiczne – elementy teorii i praktyki, A. Frączkiewicz-Wronka [ed.], Wydawnictwo Akademii Ekonomicznej w Katowicach, Katowice 2009, pp. 44-45.

¹⁷⁸ Zarys ekonomii sektora publicznego, M. Brol [ed.], Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2010, p. 87.

¹⁷⁹ B. Detyna, Współczesne determinanty zarządzania w sektorze publicznym, [in:] Nowoczesne koncepcje i metody zarządzania. Cechy szczególne zarządzania w sektorze publicznym. Specyficzne problemy kierowania ludźmi, K. Piotrowski [ed.], Warszawa 2014, pp. 13-20.

¹⁸⁰ B. Gajdzik, Wprowadzenie Kaizen w urzędzie miasta, „Problemy Jakości”, No. 7-8/2015, p. 24.

Table 5.1
Institutional peculiarities of the public sector

THE PROPERTY and ORGANIZATIONAL ASPECT	THE ALLOCATION ASPECT
<ul style="list-style-type: none"> - public administration, central and local government and its agencies, - public entities of an administrative nature (boards, agencies) - public institutions specialized in the provision of services, - companies with different legal status which is wholly owned by municipalities, counties, the provincial government, the state treasury, - units of commercial law involving the (dominant) public capital, - private or privatized enterprises with the special status of public authority, eg. in the field of military or energy 	<ul style="list-style-type: none"> - disposal of public funds and their purpose to specified types of activity, production, investment, services, consumption, etc. - generally the activity of public authorities and their consequences, - general decision of the public authorities and their results, - production, investment, consumption and resources transfers subordinate to public authorities.

Source: own elaboration based on: F. Kuźnik, *Zarządzanie strategiczne w sektorze publicznym*, [in:] *Zarządzanie publiczne – elementy teorii i praktyki*, A. Frączkiewicz-Wronka [ed.], Wydawnictwo Akademii Ekonomicznej im. Karola Adamięckiego w Katowicach, Katowice 2009, pp. 228-229.

5.4. Concept for the measurement and evaluation of management efficiency in public administration

The initial premise of the proposed concept for the measurement and evaluation of management efficiency in public administration - based on the *Balanced Scorecard* is that the meters and financial ratios are not sufficient for a comprehensive, multi-dimensional analysis of the effectiveness of the organization¹⁸¹. This assumption is mainly due to the following reasons:

- meters and financial ratios are determined on the basis of the "historical" data and do not always give early warning signals, eg. regarding changes in the environment,
- financial tools are not sufficient to determine the forecast of financial results in the future (the effects of the activities of public organizations depend on, inter alia, the degree of satisfaction of social needs, the effectiveness and efficiency of internal processes),
- financial results show mostly the efficiency of management of material resources (buildings, equipment, devices, computer hardware and information systems), which are getting a lower percentage of the market

¹⁸¹ R.K. Tyagi, P. Gupta, *Strategiczna karta wyników firm usługowych*, Wyd. PWN, Warszawa 2010, pp. 181-197.

value of public organization (this depends mainly on the human resources, knowledge, quality of services, ways of management, ability to adapt to changing environmental conditions, etc.),

- gauges and immaterial indicators (including both quantitative and qualitative) help resolve the adverse phenomenon in operating activities (before you will find reflected in the financial results) and take preventive action (advance possible errors).

The Balanced Scorecard gives managers a universal tool to translate your vision and strategy into a set of logically related measures of efficiency.¹⁸² These meters are grouped according to four perspectives of assessing the effectiveness of (sustainability of the four areas is an essence of the BSC):

- customer perspective – in which is usually contained the meter of customer satisfaction degree,
- internal processes perspective – with identification of the key internal processes that enable the organization to create value and fulfill the expectations of stakeholders regarding the financial results,
- development perspective (employees, innovation) – with identification of key resources that an organization must develop in order to lay the groundwork for the development of long-term (improvement),
- financial perspective – which shows whether the implementation and execution of the strategy contributes to the improvement of the economic results.

Below are suggestions of exemplary meters and indicators to measure the efficiency of the public organization – divided into four perspectives: external customers (Table 5.2), internal processes (Table 5.3), the development - internal customers, innovation (Table 5.4) and finance (Table 5.5). This is a proposal, taking into account the general assumptions relevant to the public sector. They are not, however, universal meters and indicators, prepared (in total) for use by each institution, because it does not take into account the specifics of a particular organization. Presentation of "key scorecard" (KSC) is the authors' intention that can serve as an inspiration to managers who are looking for effective tools for measuring the efficiency of management in the organization. The number of measuring tools should be from a few to a dozen. We can then choose several indicators from each perspective and schedule recurring, long-term research. It is important that the number and type of tools were adapted to the real needs and analytical capabilities of the institution.

¹⁸² R.S. Kaplan, D.P. Norton, *Strategiczna karta wyników. Jak przełożyć strategię na działanie*, Wydawnictwo Naukowe PWN, Warszawa 2012, p. 41.

Part 1. EFFECTIVENESS OF MANAGEMENT AT REGIONAL LEVEL

Table 5.2

Examples of meters and indicators to efficiency measure - external clients perspective

Perspective of external customers	Examples of meters and indicators
	<ul style="list-style-type: none"> - degree of customer satisfaction - according to a systematically designed and carried out survey, - number of customer complaints within a specified period of time, - Custom Satisfaction Index (CSI) indicator - as a complement to the process of creating the so-called. map quality, - average waiting time for implementation of the case, - timeliness of executed projects, tasks - as a relation of projects / tasks completed on time, according to plan, to the total number of projects / tasks (performed in a given time interval) - rate of change in the number of business entities with whom the organization has signed a cooperation agreement, - number of entities with which the organization regularly exchanges information (partners), - number of complaints reported by various institutions

Source: own elaboration.

Table 5.3

Examples of meters and indicators to efficiency measure - internal processes perspective

Perspective of internal customers	Examples of meters and indicators
	<ul style="list-style-type: none"> - number of the received certificates, - indicator of the certification / accreditation standards implementation, - number of developed and implemented standards of conduct, - average time of document circulation, - seasonal index of selected services, - number of new implementations at a specific time, for example, computer software, - number of devices purchased in a given period of time, - number of employees participating in training, internal and external, - number of ideas in relation to the provision of services/tasks that have been reported by employees, - number of project participants/social actions etc. organized by that institution

Source: own.

The basic questions that should ask themselves managerial staff public organization that wants to implement and use the proposed method are:

- How do we want to proceed towards our clients to realize our vision and mission? (perspective of external clients),
- Which process is needed to be the best to satisfy our owners and customers? (internal processes perspective),
- How can we develop our potential for growth and development in order to realize the vision and mission? (development perspective),
- How do we want to work towards our owners to achieve success? (financial perspective)¹⁸³.

¹⁸³ H.R. Friedag , W. Schmidt , My Balanced Scorecard. Moja strategiczna karta wyników, Wyd. C.H. Beck, Warszawa 2003, pp. 19-20.

Table 5.4

Examples of meters and indicators to measure the efficiency – development perspective (internal customers, innovation)

Perspective development - customers internal and innovation	Examples of meters and indicators
	<ul style="list-style-type: none"> - amount of training per one employee, - training costs per employee, - rate of employee turnover, - rate of change of employment in individual groups of employees, - share of employees with higher education in the structure of employment, - participation of workers in training, - absenteeism of employees at a specified interval, - level of information system integration, - number of key management areas covered by the informatization - number of implemented new technologies, - number of innovations per a specified time period, - level of employee satisfaction with work (based on internal surveys) - (ESI - <i>Employee Satisfaction Index</i>)¹⁸⁴

Source: own.

Table 5.5

Examples of meters and indicators to measure the efficiency – financial perspective

Financial perspective	Examples of meters and indicators
	<ul style="list-style-type: none"> - debt service coverage ratios, - debt relief level, - fixed payment coverage, - indicator of income and expenditure structure, - indicator of the dynamics of revenue and expenditure, - indicator of the share of own income, - participation rate of investment spending, - indicator of current expenditure per capita (per capita) - indicator of capital expenditure per capita (per capita) - participation rate short-term debt - liquidity ratios, - debt ratio in relation to total revenue, - debt ratio in relation to own income, - subsidies and grants in relation to the budget expenditure¹⁸⁵, - debt ratio in relation to investment spending, - indicator of the debt amount of 1 inhabitant, - unit cost of a given benefit, - own revenues in relation to the budget expenditure.

Source: own.

¹⁸⁴ Employee Satisfaction Index (ESI) - mierzony zgodnie z metodyką stosowaną przy obliczaniu Custom Satisfaction Index (CSI), [in:]: B. Detyna, Zarządzanie jakością w logistyce Zarządzanie jakością w logistyce. Koncepcje, metody i narzędzia wspomagające. Ujęcie praktyczne, Wydawnictwo Państwowej Wyższej Szkoły Zawodowej im. Angelusa Silesiusa w Wałbrzychu, Wałbrzych 2015. p. 73.

¹⁸⁵ Analiza wskaźnikowa jako narzędzie doskonalenia zarządzania jednostką samorządu terytorialnego, [in:]: Nowe zarządzanie publiczne w polskim samorządzie terytorialnym, A. Zalewski [ed.], Oficyna Wydawnicza Szkoła Główna Handlowa w Warszawie, Warszawa 2005, pp. 194-202.

5.5. Key Scorecard (KSC) for public administrations unit

The achievements of public organizations which are the result of the implementation of the proposed strategy and measured by a designed balanced scorecard should be the periodically monitored. Card monitoring of results (achievements), an example of which is given in Table 5.6 can serve this purpose.

Table 5.6
Key scorecard results of public organization in 2017

Key meters and indicators	I quarter 2017	II quarter 2017	III quarter 2017	IV quarter 2017
Perspective of external customers				
A.				
B.				
C.				
D.				
Perspective of internal customers				
A.				
B.				
C.				
D.				
Perspective development - customers internal and innovation				
A.				
B.				
C.				
D.				
Financial perspective				
A.				
B.				
C.				
D.				

Source: own elaboration.

The monitoring card should be consistent with the internal arrangements, and adapted to the needs of the "owner card" and "change leaders". Schedule (standards) are followed in the event when obtained results from the study exceed acceptable levels (it is worth that such "border" points - norms are defined, saved and communicated to employees, who are responsible for specific results) should also be developed. The construction of a system for measuring and evaluating the achievements of the public organization based on the key scorecard (KSC) should be implemented in stages. The most important steps are:

- The correct formulation of public policy organizations on the basis of pre-defined vision and mission;

- Definition of prospects for the measurement and evaluation of performance, that are relevant from the point of view of a public organization activities nature;
- Determination of objectives and strategic initiatives and their integration with a management system;
- Developing "strategy maps" that is, of cause - effect chains between strategy and potential tools for the measurement and evaluation of performance of the organization ("map" allows to link the objectives of a public organization with the daily operational activities) - the specific objectives with the different perspectives: customer, internal processes, development and finance are grouped together for the realization of the overall objectives;
- Designing a balanced scorecard - selection of metrics and indicators specific to each perspective (evaluation plane) and the frequency of the planned measurements;
- Implementation of the key scorecard - with the appointment of persons who will be responsible for its evaluation.

As a result of these successive actions a correlation between financial and non-financial results and the combination of long and short-term targets should take place. IT application should be used to generate appropriate (useful) reports and their customers at an early stage should be: "card owner" (chief manager) and "leaders of change" (middle management)¹⁸⁶.

Arguments for the utility of the proposed methods in the public sector include:

- the fact that the concept of New Public Management puts emphasis on the development in four areas relevant to the BSC methodology,
- effectiveness assessment using only financial indicators is at the contemporary conditions inadequate,
- the monitor concept of results key focuses on the strategy and is the method of managing the process of its implementation - so that we can monitor the level of implementation of the assumed long-term goals,
- enforces consistency in the formulation of a strategy through building the cause - effect relationships between objectives and activities¹⁸⁷,
- takes the balance short-term goals with long-term, financial and non-financial indicators arising from history and those talking about the future,

¹⁸⁶ System pomiaru i oceny dokonań szpitala, red. M. Hass-Symotiuk, Wyd. Wolters Kluwer, Warszawa 2011, pp. 208-209.

¹⁸⁷ B. Detyna, Współczesne metody i koncepcje zarządzania z perspektywy wartości dla klienta, „Roczniki Naukowe”, Administracja Publiczna, No. 2/2005, Wyd. Państwowej Wyższej Szkoły Zawodowej im. Angelusa Silesiusa w Wałbrzychu, 83-94.

- scorecards are relatively easy to use,
- for public organizations the function of motivating employees can be particularly beneficial¹⁸⁸ – which results from the increase of awareness about the responsibility for the organization results obtained¹⁸⁹,
- systematic monitoring of selected key indicators may prove to be a valuable tool in improving the management processes - due to providing rapid response to disturbing signals (results) coming from the analyzes (implementation of corrective actions).

5.6. Conclusions

The potential benefits that indicate the utility of the key scorecard in the public sector should encourage managers to use this tool. However, proposed by authors the public organization performance measurement system to achieve the intended effects should meet the following criteria:

- accepted meters and indicators for assessing efficiency should allow a multidimensional evaluation of the objectives implementation of a public organization and realized tasks,
- in the process of constructing a balanced scorecard, these employees should participate, whose achievements are being measured (evaluated),
- employees of the organization must be equipped with the necessary material resources, information technology, knowledge and skills (related to the use of metrics and indicators and evaluation of the monitoring approach)¹⁹⁰,
- results of systematic measurements and evaluation of performance should be notified to the interested organizational units (employees) in such a form and time so that they can respond appropriately (to adjusted, to improve) their activities.

The monitoring system proposed by the authors is based on the assumption that the efficiency of management is a multidimensional concept. The authors propose carrying out the measurement and evaluation of the effectiveness, taking into account multiple points of view (planes of

¹⁸⁸ B. Detyna, Motywowanie, jako element procesu kierowniczego, „Roczniki Naukowe”, Administracja Publiczna, No. XV/2009, Wyd. Państwowej Wyższej Szkoły Zawodowej im. Angelusa Silesiusa w Wałbrzychu, pp. 71-81.

¹⁸⁹ B. Detyna, Projekt zrównoważonej karty wyników jako narzędzia pomiaru efektywności usług w administracji publicznej, [in:] Administracja publiczna – zagadnienia prawne i koncepcje zarządzania, No. 1, P. Borszowski, B. Detyna [ed.], Wydawnictwo Państwowej Wyższej Szkoły Zawodowej im. A. Silesiusa w Wałbrzychu, Wałbrzych 2014, p. 187.

¹⁹⁰ W. Łukasziński, Kapitał ludzki źródłem jakościowej dojrzałości organizacji, „Problemy Jakości”, No. 10/2015, pp. 2-6.

measurement). Properly carried out in the implementation process a key scorecard requires provide favorable organizational conditions, including an appropriate organizational structure, information flow, as well as an effective incentive system addressed to all employees. Establishment of appropriate implementation teams and the building of an effective system of data collection and processing for reporting purposes should be beneficial. It is also conducting a series of training sessions for users and those responsible for the administration of the card. Programmes for information should explain in detail the concept, construction, operation and the role of the multidimensional monitoring of selected indicators in the public organization. The process approach should be an important condition to develop an effective system of measurement and evaluation of performance of a public body¹⁹¹, both for the organization of public services provided, as well as the management. This approach enforces to treat the organization as a system in which individual persons and cells are subordinated to the overriding objective of the public service. The process structure of the organization usually is expressed in practice through the dynamics of the system, management flexibility and decentralization of governance functions. Thanks to the process approach the importance of the external customers role increases, as the main wizard of activities inside an organization¹⁹².

Adjusting the cards not only to the organizational structure, but also to the responsibility of individual persons for their decisions and actions is the next factor determining the effectiveness of using the key scorecard. Rebuilding the way of employees thinking about the functioning of public organizations, as well as the modification of the accounting system in the direction of responsibility coupled with the implementation process is an indispensable condition here¹⁹³. Usually, access to relevant information and the cost of this access is a serious limitation. Financial data are usually available from the financial and accounting systems, and data on non-financial indicators are much more difficult to obtain (e.g. to determine the level of customer satisfaction from services or the level of employee satisfaction from work requires the design, conduct and verification of surveys). Not only is systematic analysis of measurable measures (e.g. financial ratios) just as important for the development of an organization, effectiveness and efficiency of management, but also the subjective opinions of customers

¹⁹¹ M. Bugdoł, Integracja metod i systemów zarządzania w administracji samorządowej, „Problemy Jakości”, No. 9/2013, pp. 12-15.

¹⁹² M. Flieger, Dojrzałość procesowa gmin w świetle współczesnych paradygmatów zarządzania publicznego, [in:] Racjonalność w funkcjonowaniu organizacji. Rozwój przez wiedzę, Oficyna Wydawnicza Państwowej Wyższej Szkoły Zawodowej w Nysie, Nysa 2011, pp. 48-49.

¹⁹³ System pomiaru dokonań szpitala, op. cit., p. 170.

(internal and external stakeholders) about achieved their satisfaction (from the offered services, cooperation with individual organizational units, communication, access to information, etc.).

Katarzyna Wąsowska¹⁹⁴, Radosław Korneć¹⁹⁵

6. Oil Saving in Air Transport

6.1. Introduction

The first serious oil crisis, which had a big influence on the functioning of air transport, took place over forty years ago. Since then one has been observing a significant technological development, and a rise in the potential of decreasing the energy cost, but the system of transport has remained unchanged. Even though transport in general, has become more energy-saving, 96% of the energy needs in the European Union still depends on crude oil and mineral oil products. In 2010 the European Union imported oil for about 210 bln EUR. The lack of a solution concerning the dependence of air transport on oil can affect the citizens' opportunity to travel and the safety of the economy. Bearing this in mind it is worth asking some questions. Are there any ways to decrease the consumption of oil in air transport? To what degree can alternative solutions influence crude oil saving in air transport?

6.2. Some Motives of Searching for Oil Savings in Air Transport

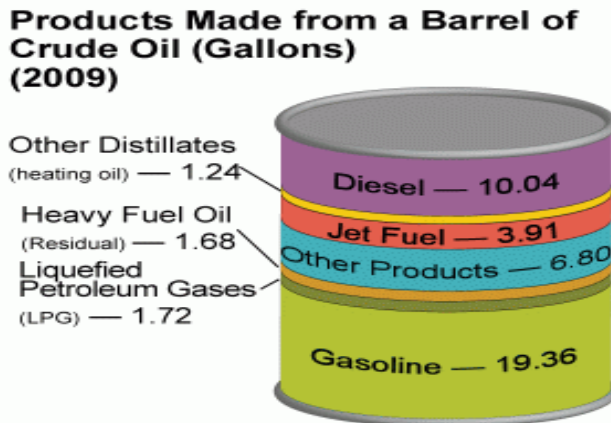
Flying does not belong to the economic means of transport. However, the factors such as time, distance, safety etc. marginalize the economic indicators (the quantity of oil used) and put this kind of transport in the first place, or even make it irreplaceable. So, to what extent does air transport contribute to the usage of crude oil and what is the scale of the dependence of aviation on jet fuel production?

¹⁹⁴ Ph. D., Siedlce University of Natural Sciences and Humanities, the Faculty of Economic and Legal Sciences, the Department of Management and Marketing, the Chair of Marketing and Logistics, katarzynawasowska@uph.edu.pl

¹⁹⁵ Ph.D., Siedlce University of Natural Sciences and Humanities, the Faculty of Economic and Legal Sciences, the Department of Management and Marketing, the Chair of Marketing and Logistics, radoslawkornec@uph.edu.pl

Jet fuel and other products originate from the processing of crude oil. From one barrel we can obtain 8% to 9% of jet fuel, depending on technology. Quantitative proportions of products which are obtained from one barrel of crude oil are shown in Figure 6.1. As can be seen, only one tenth of the crude oil extracted in the world can be consumed by air transport. This is a serious limitation which is felt in every attempt of interfering in the market by the countries controlling oil drilling and supply. In this way a thesis that air transport, as first, will suffer from the results of a potential oil crisis is confirmed, and that is also due to the proportions and limited possibilities of obtaining products made from crude oil, including jet fuel. This situation will last as long as the technology of the air drive is based on naphtha.

Figure 6.1
Products made from one barrel of crude oil



Source: www.weglowodory.pl (access: 23.05.2016).

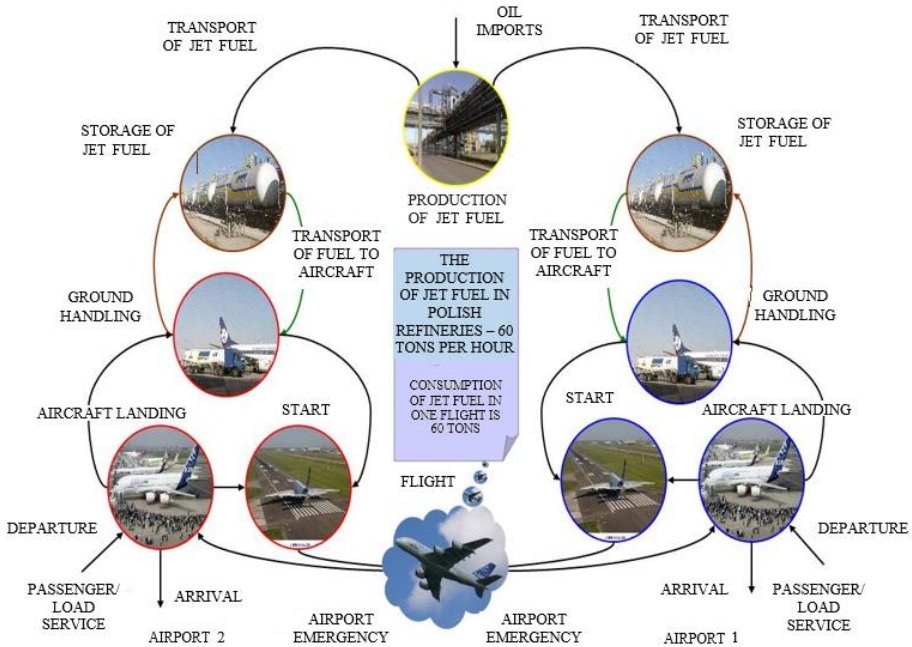
Completing a freight cycle by one plane is connected with the preparation of a minimum four airports, each with a stock of fuel for the full coverage of a journey by a given plane. These are: the airport for taking off and the take - off alternate; the destination aerodrome and the destination alternate. If it is a flight from Warsaw to New York with a Boeing 767 the consumption of fuel will be about 40 tons while flying one way, which means that it is necessary to have $4 \times 40 = 160$ tons of fuel in all those aforementioned airports. Taking into consideration the efficiency of Polish refineries producing jet fuel, a company would have to work about five hours (productivity of 80 tons in two and a half hours) to secure such a flight¹⁹⁶. The full cycle of

¹⁹⁶ www.interia.pl (access: 15.04.2015).

production and usage of jet fuel from the import of crude oil to the production and storage of the ready product, to delivering it for complementing the tank in a plane, is presented in the figure below.

Figure 6.2

The system of dependence of air transport on the oil extraction (import) and fuel production



Source: own elaboration.

Modern planes use a lot of fuel. This consumption can differ, depending on a load with cargo/ passengers, as the data in Table 6.1 show. Transport planes described in Table 6.1 can be divided according to: coverage (small, medium and large), jet fuel consumption, novelty of construction (year of production), and one can compare various types accordingly. However, in our analysis it is most important to indicate the role of technological development in oil saving. It is possible to notice minor differences in fuel consumption per hour in old and new planes, but the real proof of progress is a visibly big differentiation in the plane coverage with a similar fuel usage per hour. This development has been made by better efficiency of engines (more powerful engine thrust) with the same consumption of fuel per hour, and also by improving the aerodynamics of plane constructions.

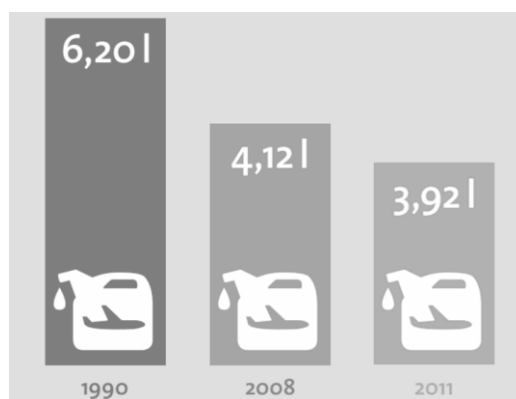
Table 6.1
Parameters of chosen types of transport planes

Types of plane	Tanks capacity [kg]	Fuel consumption [kg/h]	Max. coverage [km]	Coverage with a load [km]
Boeing 737-300	16140	2499	5300	3900
Boeing 737-400	17325	2600	5300	3900
Boeing 737-600	22137	2500	7300	5300
Boeing 737-700	20536	2500	6036	5100
Boeing 737-800	20780	2600	5370	4680
Boeing 767-200 ER	73100	2200/4300	12400	9800
Boeing 777-200	143200	3000 1sil.	13500	11100
Boeing 757	36966	-	7222	6287
Boeing 747-400	184314	-	13450	-
A300-600	52700	-	6670	-
A300-600R	52700	-	7505	-
A300-600 F	57927	-	-	4850

Source: own elaboration based on commercial brochures.

In 2013 the German Aviation Association BDL (Bundesverband der Deutschen Luftverkehrswirtschaft) published the results of research from 2011, performed on the planes belonging to the members of the association (among others Lufthansa, Air Berlin, Tui), which showed that for transporting one passenger for a distance of 100 km, less than four liters of jet fuel is needed (on the average). It is important to underline that the average usage of fuel per passenger is constantly decreasing, and since 1990 it has decreased by 37%¹⁹⁷ (Figure 6.3).

Figure 6.3
The parameters of jet oil usage for transporting one passenger for 100 km



Source: www.samolotypassazerskie.pl (access 25.05.2016).

¹⁹⁷ www.samolotypassazerskie.pl (access 25.05.2016).

6.3. The Share of Jet Fuel in Costs

The accessibility to oil (quantitative, qualitative and price wise) on the world markets, has a significant influence on the financial results of the air transport companies and the state of the economy. The introduction of jet engines in the 1970s created more demand for fuel and contributed both, to the growth of prices and the improvement of the service standards. The share of fuel cost in the costs of services was 30% to 40%. At the same time researches were taken to improve the indicators of the economic transport in the areas of plane constructions and service organization.

In practice, there is a big difference in the costs of services in the performance of civil aviation in various countries. In the European Union some efforts have been taken to unify the elements of air transport costs, in which the fuel stands for about 39%. The value of jet oil is shaped by the demand and supply on the world markets, so the EU regulations cannot be fully obeyed because the prices, to a large extent, depend on the economic conditions.

In the Polish Warsaw-Okęcie airport fuel is delivered by PKN Orlen, which provides services of fueling plane tanks in thirteen Polish airports. It is necessary to know the price of fuel to assess the cost of fueling a tank of 14 tons capacity. Right now the price of one liter of jet fuel is 2.23 PLN¹⁹⁸. There are about 1170 liters in one ton of fuel, so:

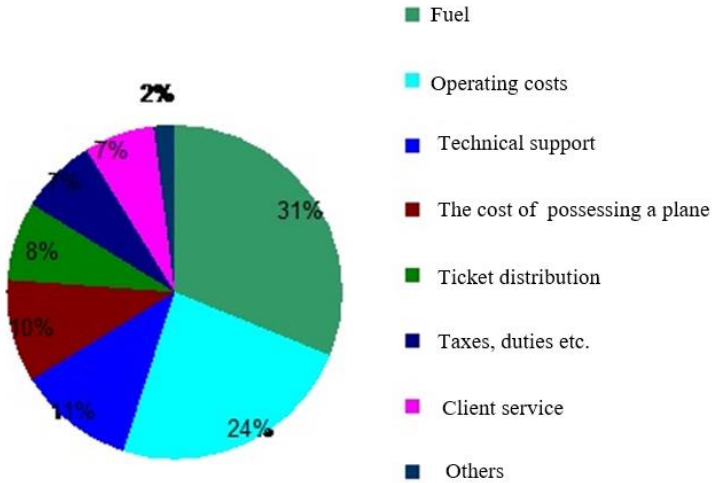
$$14(1170 \cdot 2,23) = 36\,527 \text{ PLN}$$

In the above analysis there are still absent prices for: ground handling, catering, hangar and the duty which an air carrier has to pay. They are not taken into consideration because, very often, they are not announced to the public. Everything depends on the agreement signed by the air carrier and the suppliers of fuel or catering. It can be different for the air carrier "X", which can pay price "x", and another air carrier "Y" which can pay price "y" even buying jet oil from the same supplier. The same concerns ground handling and other services which are offered by various companies operating in a given airport.

As can be seen, there are many different elements in air transport, however, the cost of fuel is dominating, and every rise in price on the world markets influences the price of air transport services. To complete the investigation let us look at the average costs of airlines in 2015 (Figure 6.4)

¹⁹⁸ Price on 03.06.2016 - www.dlapilota.pl

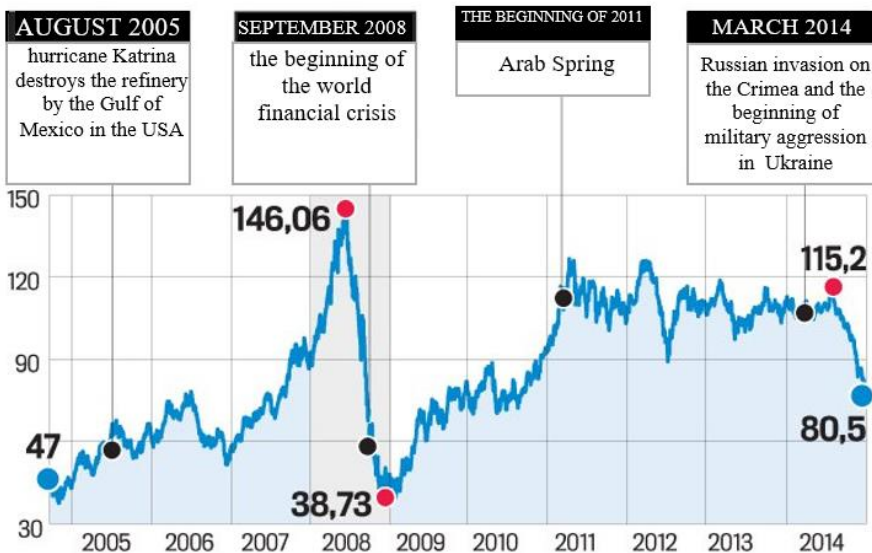
Figure 6.4
Average costs of airlines in 2015



Source: www. aviasg.com (access: 25.05.2016).

Constant oil price fluctuation on the world market do not bode well for the weaker air carriers (Figure 6.5). Specialists analyzing the market of air carriers describe the limits of keeping air transport for \$85 to \$115 per barrel.

Figure 6.5
Oil price fluctuation on the world market



Source: www.wyborcza.biz (access: 23.03.2015).

6.4. The Influence of Innovation for Oil Saving in Air Transport

Taking into consideration the fact that a black scenario of exhausting oil resources may come true, the world of science should – and actually is doing that – work intensively to introduce technological changes enabling the elimination of oil from its key usage in industry and transport, especially in aviation. Replacing oil with some substitutes is one of the way of making the economy immune to oil crises. Science does not have much time for its mile stones in this area, because it takes from 15 to 30 years of research and tests for an invention to implement it, and our present oil resources can be sufficient for 40-50 years. The directions of technological innovation in air transport will be shown in this part of the chapter.

Thinking about huge oil consumption and the new economic and financial crises, as well as a still growing dependence of the national economies on the natural and power generating raw materials, one can state, with complete responsibility, that nowadays, this situation is a driving force making people search for some alternative sources of energy. The best example is the United States seeking alternative sources of energy for their armed forces.

One of the innovative ideas, which was tested by American scientists, concerned a method of obtaining fuel from algae. At first it seemed unbelievable, however, after analysis by the US Department of Defense it sounds quite realistic, as we can read: “Every day the army uses over 350 thousand barrels of crude oil, which stands for 1.5 per cent of the national consumption, and in the case of federal institutions – over 95 per cent. This is more than the yearly usage in most countries in the world”¹⁹⁹. When we look even further at the costs of armed forces paid by the USA, it becomes obvious that searching for alternative sources of energy is necessary because “(...) only in 2006 the fuel for the army cost almost \$12 bln. The rising tendency is clear: two years previously the expenditure was 7.8 bln, and four years earlier – 5bln”²⁰⁰. Analyzing a labour - intensive process of fuel supply, one can discover that it accounts for 70% of all supplies. In the peak phase of actions in Iraq, the US military contingent used 40 thousand barrels of petroleum every day. The estimated cost of supplying one litre of petroleum can be even several hundreds of dollars.

No wonder that the US Department of Defense was looking for any possible ways to replace conventional fuel with some easier accessible, cheaper and transport wise unlimited resources. May 2008 was a breaking point in that search, as the B-1 bomber broke the sound barrier using, for the

¹⁹⁹ Chulda R., *Wojsko idzie w zielone*, Polska Zbrojna Nr 36 z dnia 6 września 2009, p. 40.

²⁰⁰ *Ibidem*.

first time, a mixture of an ordinary JP8 fuel and a synthetic fuel, tested in a laboratory in 2006.

The research aimed at least at a partial independence from fuel originating from crude oil is still being performed. "Land forces are testing the vehicles with a hybrid drive and batteries supporting the individual ordnance of soldiers, and the air forces are examining the possibility of using lighter materials for constructing all elements of planes, which can limit fuel consumption"²⁰¹.

Today, one's hopes are pinned to synthetic fuels which can be produced from natural gas, coal and biomass, and can provide an alternative for crude oil. Many of the aforementioned technologies originate from the twenties of the previous century. During World War II the Germans produced synthetic fuel from coal and wood on a large scale²⁰². Nowadays, the methods of production of synthetic fuel used in commercial flights have been elaborated in the Republic of South Africa.

The production of a special fuel for armed forces is not simple because:

- it is different than civil fuel,
- it has to be adapted to the sound breaking flights,
- there is no universal fuel which can be used in all kinds of armed forces to power various engines and army equipment, including aviation,
- it has to be more resistant to temperature fluctuation (from minus 20 degrees Celsius to plus 140 degrees Celsius),
- harmful gas emission.

In the federal institutions of the United States it is forbidden to buy fuel causing higher air contamination than that coming from crude oil, but in spite of that the American air forces are planning to buy 400 mln gallons of synthetic fuel a year (starting in 2016).

In the Defense Advanced Research Project Agency – DARPA, intensive research is taken to create a modern fuel which could be used in planes, land vehicles and warships. Scientists hope that during the next few years they can create fuel which will be able to fulfill the high expectations of the armed forces. Using renewable resources results in cost reduction, as well as diminishing the natural environment pollution.

Right now DARPA is doing research on alga, seeds and corn, because they are used to produce oil, which can later be transformed into fuel. Scientists pin their hopes on efficient algae because some of their species are characterized by a huge growth of mass (some of them are able to increase their mass and size many times during several hours). Intensive research also

²⁰¹ Ibidem.

²⁰² P. Cichy, *Alternatywne źródła energii*, [in:] *Energia w czasach kryzysu*, ed. K.Kuciński, Difin, Warszawa 2006, p. 156-160.

focuses on choosing the right type, because the fastest growing species give little oil. Maybe some time in the near future we are going to witness a genetic modification aimed at creating the ideal alga variety.

Searching for alternative sources of energy is connected with some difficulties both, technological – the sensitivity of biofuel to temperature fluctuation - and financial – too expensive production: today the prices are from several dozen to several hundreds of dollars per gallon. Scientists from the National Renewable Energy Laboratory in Colorado state: “This price is obviously too high. We have to lower it”. However, one still does not know whether it is realistic, especially that many institutions have withdrawn from further research, believing that it is impossible, and stopped looking for those ways of obtaining fuel.

There is still fear that the work on biofuel, ongoing for the last twenty years, will fail because of too high a price of the new products. So far the research has been discontinued as it turned out to be impossible to decrease the cost below the price of crude oil or natural gas. However, the army still hopes to solve the problem, especially having some information that a firm called Algaeventures Systems from Maryville managed in March to lower the cost of production by 99%.

Recently, an important topic, resulting in lots of controversy among politicians, scientists and the general public is the possibility of using hydrogen as an alternative source of energy. During several years of research it has been proven that hydrogen is cleaner and can be a more common source of fuel than crude oil. However, the availability of hydrogen technology and the dissemination of this sort of fuel will not destroy the products of our civilization based on crude oil. The basic question is: How can hydrogen be obtained? Today the simplest way to extract it for chemical purposes is using crude oil. There is also a new approach to acquire hydrogen from salt water, which we have plenty of on Earth. If one has a sufficient amount of electric power, hydrogen can be obtained in a quite simple way. It can also be used in various equipment in many different ways, which does not need any “extraordinary” technology. For the first time hydrogen was used in car transport in Rome several years ago. The secret that some taxis used hydrogen did not last long and when it was revealed many people objected, believing that the gas is very dangerous. In fact a hydrogen tank is no more dangerous than the tank of petroleum, and a decision was taken that drivers can use it. The only change is that instead of, creating fear, products of combustion of mineral matter (carbon dioxide, nitrogen compounds) there will be water, and the negative aspect of the whole situation is fear of new phenomena²⁰³.

²⁰³ T. Kaczmarek, R. Jarosz, *Czy ropa rządzi światem?*, Oficyna Wydawnicza Branta, Bydgoszcz 2006, p. 169.

Alternative sources of energy were one of the topics of a conference concerning energetic crisis in the Canary Islands and the diversification of energy sources, which took place in June 2006 in Santa Cruz, Tenerife. Manuel Cendagorta-Galarza Lopez, the director of the Technological Institute of Renewable Energy INTER answered the question about the usage of the alternative sources of energy in transport in a following way: "Transport? You are asking about the most difficult thing. All the alternatives we were talking about for the last two hours – photovoltaic cells, current windmills etc. - are the ways of obtaining electricity. We cannot confuse the energy problem with the problem of electricity"²⁰⁴.

He also gave an opinion concerning hydrogen: "Hydrogen is not a source of energy. This is a problematic solution, because hydrogen used as a battery in the energetic chain loses a lot of energy – this is its nature. I work with hydrogen, and believe me, it will never work"²⁰⁵.

Other participants at the conference such as Gonzago Piernavieja – the head of the Renewable Energy and Water Department ITC, physicists Ricardo Guerrero and the head of the Canary Islands before the Energy Crisis Association - Juan Jesus Bermudez also participated in the debate. "We need to develop energy crops" said Gurrera, but Piernavieja interrupted: "but to do that we need huge space which we don't have!"; and Cendagorta agreed: "In the island where even potatoes are imported let's forget biofuels".

Today the resources of crude oil are mostly in the countries which are politically unstable. Oil, whose reserves are still big but are depleting over the years, is used as a base of political power²⁰⁶.

All those doubts seemed to be justified, and more important are the ways enabling the economic use of fuel in air transport such as:

- optimization of the flight plan, appropriate choice of planes depending on the distance and load, the reduction of non-commercial flights (technical and test flights, positioning flights);
- constant monitoring of the fuel prices, invoicing and the analysis of fuel quality;
- plane balancing and the optimization of load distribution before every take-off;
- implementing the procedure of regular fuselage and engine cleaning;
- optimization of refueling and fuel reserves on all routes, the optimization of the take-off and initial climb procedures, the choice of proper speed during flight;

²⁰⁴ <http://www.peakoil.pl> (access: 25.10.2008).

²⁰⁵ Ibidem.

²⁰⁶ W. Potocki, Ropa naftowa a wzrost gospodarczy. Teoria i praktyka, Wydawnictwo Poltext, Warszawa 2014, p. 106.

- optimization of the systems influencing fuel consumption (electric equipment, undercarriage, reverse thrust, flaps etc.) taking into consideration the conditions of the infrastructure in a chosen airport and the flight management system;
- careful choice of time windows to minimize fuel consumption during taxiing, starting the engine and electric equipment as late as possible, using the appropriate power to take off (depending on the airport and weather conditions), using one engine during taxiing²⁰⁷.

“There are some encouraging conditions to introduce innovative solutions in modern transport such as:

- the development of various scientific disciplines as well as methods and research tools;
- world scientific potential working on problems of transport;
- mature technological and industrial spheres which supply transport;
- abundance of new materials and nanotechnologies useful for transport;
- the appearance of new breakthrough technology (new generation accumulators of large capacity, new hydrogen for fuel cells);
- successful informatics and information applications in transport.

There are also factors discouraging innovation such as:

- hostility of the oil lobby towards innovation concerning thrust;
- technological conservatism and skepticism of many communities and politicians involved in transport;
- a big risk and capital intensiveness of implementing innovation in transport;
- the accumulation of traditional means of transport which are still in a good technical state;
- the belief in discovering new oil resources²⁰⁸.

New innovative ideas, which also appeared in civil aviation, are as follows:

- the concepts of new generation planes,
- new generation navigation equipment,
- air traffic control systems based on informatics and satellite technologies,
- new generation airports and landing strips,
- changes in the organization of ground movement (taxiing, engine testing); it is estimated that one third of fuel is consumed by the plane ground movement.

²⁰⁷ www.lotniczapolska.pl (access: 30.03.2015).

²⁰⁸ <http://www.pomorze2030.pl> (access: 10.01.2011).

The most innovative and important solutions are:

- the concepts and prototypes of vertical takeoff and landing aircrafts with variable geometry of wings (*Rotorcraft, Tiltrotor*), produced by Textron, Erica and others,
- new generation cargo airships (*Airship, Dirigeable*),
- eco friendly planes with low emission of noise and CO₂,
- new generation “flying wing” aircraft (without traditional fuselage),
- large passengers planes (the type of Airbus 380, a prototype of a 1000-seat Boeing 797 *Blended Wing*, experimental Boeing planes and NASA X-48B) for minimizing the number of take-offs and landings and limiting congestion,
- new generation airports (including *Smart Automated Airports, Highway in the Sky, Off-Shore Air Stations*),
- the connection of big airports with cities and transforming them into logistic centres (*Aéropolis*),
- safe, automated air traffic control ATS²⁰⁹.

Taking the aforementioned into consideration, the future looks optimistic. However, one should remember that our problems today result from yesterday’s choice, and our generation can take decisions which will allow the future society to live in a safe and affluent world.

6.2. Conclusion

The exhaustion of crude oil is a fact and our civilization can disappear if we do not find some alternative ways of obtaining fuel. Transport, including aviation, may not exist or function soon, because of its high cost. It is possible to prevent political or economic crises, but resource crisis can be only mitigated by new technologies which will not be based on crude oil. The other ways may include: savings, the accumulation of stocks, signing agreements for oil supply, and international control over the exploitation of crude oil resources. It is possible to enlarge the stock of oil adapting closed salt mines, which could be treated as a deposit of Arab countries and NATO. Besides, the member states of the EU have been obliged by EU regulations to keep oil stocks covering the needs for 90 to 120 days²¹⁰.

Scientific research has shown that, because of the approaching crisis of limited, or complete exhaustion of natural resources, including crude oil, it is

²⁰⁹ Ibidem.

²¹⁰ Komunikat Komisji do Parlamentu Europejskiego i Rady - Europejska strategia bezpieczeństwa energetycznego COM(2014) 330 z dnia 28.05.2014.

necessary to continue the search for alternative sources of energy (substitutes), no matter how expensive it is, and in spite of the lack of expected results .

Hitherto, the attempts of replacing traditional products originating from crude oil by hydrogen or biofuel have failed for economic and technical reasons. Those substitutes turned out to be impractical, especially in air transport. The current research and the analysis of literature do not show the negative effects of alternative energy sources because of lack of data in this field.

To prevent the undesirable results of possible crises, airlines all over the world combine with each other in alliances (fusions), which help survive the time of crisis. The effects of such behaviour can be, and often is, the decrease of fuel costs and other payments (airport charge, using air space), which lowers the costs of their performance.

The conclusion of the above investigation is that the negative effects connected with the exhaustion of crude oil resources can be mitigated to some extent by: the modernization of aviation equipment (buying planes which consume less oil) and the elimination of some unnecessary costs – e.g. setting up cheap airlines, or creating marketing activities aimed at maximizing the rate of occupying seats in passengers planes.

Jerzy Kolarzowski²¹¹

7. The Crossroads of Praxeology in the Second Half of the 20th Century T. Kotarbiński – P. Bourdieu*

It is intended by the author to analyze the praxeology of Tadeusz Kotarbiński, a prominent Polish reist, awarded the French Legion of Honour, as well as to present the famous French sociologist P. Bourdieu. The contributions by Kotarbiński were inhibited by Real Socialism whereas Bourdieu wrote during the disintegration of the French colonial empire and the anti-leftist backlash in the French intellectual elites – the processes of the last quarter of the 20th century. The common denominator for Kotarbiński's normative praxeology and the *dominium potestas* of the socio-praxeological concepts by Bourdieu include the recognition of the pressure of time and openness to various aspects of the social context. Indeed, Bourdieu posits

²¹¹ Prof., Siedlce University of Natural Sciences and Humanities, Poland, jerzy.kolarzowski@uph.edu.pl

* Presented at a conference celebrating 25 years of the Praxeological Society [Towarzystwo Naukowe Prakseologii] on 14 May, 2015.

praxeology in the outskirts of philosophy and surrounds it with a number of dimensions of elementally rendered social contexts.

The comparison of Kotarbiński and Bourdieu could reveal a vast number of societal perils and the helplessness of humanistic reflection that attempts, to at least, diagnose these perils.

7.1. Tadeusz Kotarbiński – Promoter of Normative Praxeology

Kotarbiński was 49 in 1945 when WWII ended. The body of his work included tens of studies on the history of philosophy, interpreted as a purely intellectual programme. He was a clear materialist, espousing concrete²¹² and atheistic marxism. Kotarbiński's prewar work on Aristotle, Bacon, Marx and Brentano led him to a peculiar type of epistemology – to reism. In most general terms, reism is an ontological theory that opposes the existence of any general objects – only things exist. Kotarbiński's intellectual tenets provided for freeing philosophy from terminological debates associated with abstract objects' names, which he called non-genuine names or onomatoids.

In his philosophical path, T. Kotarbiński intended to resolve two planes of problems – issues of gnosiology and the classification of sciences. As part of the classification of sciences, praxeology, submitted by the positivist A. Comte's disciple Alfred Espinas (1844-1922) as a postulate of a self-standing science, means the end to scientific methodology taxonomy disputes. Also, being a highly reductionist science, it was compatible with marxism, to which Kotarbiński was quite well predisposed. So was the great logician S. Leśniewski and part of the Lvov-Warsaw school of thought. In the intellectual milieu of prewar Poland, it was commonly believed that civilizational and scientific progress was indispensable and so was social modernization. Marxism was not seen as inextricably Bolshevik because in the early years of the Soviet experiment (the 1920s) it was ideologically ambiguous²¹³.

In Kotarbiński's reism each thing is at the same time a body (pansomatism) and the object of research. His scientific programme was close to physicalism.

²¹² Concrete marxism here means such a reception of marxism where the last instance of appeal in case of any doubt is each time praxis, both scholarly as well as everyday.

²¹³ Statist economy was also promoted by the early 20th century Germans whereas in the the 1920s USSR more synagogues were established than in the whole preceding period in the Russian polity. Some Bolsheviks, such as Gen. Sverdlovsk had burials in the Jewish rite. The Soviet Russia of the 1920s saw marxism, anarchism (Savinkov) and nationalism fight for supremacy. Cf. A. Solzhenitsyn, *Dwieście lat razem, t. II W powolucyjnej Rosji*. (2014), trans. A. Mayer, N. Krzyżanowska-Barwińska, Wrocław: WERS [only incomplete English translations available online; note by L.K.] and W. Zubow, *Lata przez mękę Rosja 1917-1925*. trans. D. Ulicka, (2015), Warsaw: Wydawnictwo Akademickie Sedno & Centrum Polsko-Rosyjskiego Dialogi i Porozumienia.

Physicalistic materialism could both oppose psychologism – a scholarly manner plaguing the humanities of the turn of the 19th and 20th centuries – and something very attractive in its distinctness as phenomenology. Both in Nature and in society all bodies are in motion and in a mutual relation. In order to explain the pursuits and relations between people, Kotarbiński proposed praxeology – a self-standing science on human actions and ways to make them perfect.

Regarding praxeology, its main job is to create recommendations and caveats concerning skillful, that is rational, action in general, and thus valid in all domains of human activity, on a farm, in the military defense, in healthcare, judiciary, education, etc²¹⁴.

Praxeology is thus an area of philosophical deliberations that occurs in various systems – particularly the rationalistic ones, beginning with Aristotle – and means both a description and an evaluation of human actions.

[...] is present in all action, which tends to be important when describing it: we always act in a context, made upon of the environment, that is, all that surrounds us, and the situation – all the states of these things or their change over the time the action takes place. The time the action takes place is here understood to be the period from the beginning of any impulse until the end of the change resulting from it.²¹⁵

Actions can be productive, unproductive or counter-productive. In reducing some problems to the description and evaluation of actions, one obtains an omission of the deliberations on consciousness, will, intention or emotions at each stage of human activity. Praxeology can thus be said to be a philosophical superstructure over ergonomics, a science of the physical movement of the human body, at the expense of considerable reductions related to neurons and psyche, whose activity it did not reckon with, thus going over a number of issues. A polemic with reism, thus conceived, and its consequences, arose among logicians with a positivist orientation.

K. Ajdukiewicz criticized Kotarbiński saying that materialistic reism is a logical tautology. If only things exist, every object is a thing and things do not differ from one another [$a = r$; $b = r$; $a = b$]. Praxeology could thus speak of states and characteristics of human and only human actions, (not the forces of Nature, animals or any other 'Cosmic Causer'). A foundation of such a system was consistent atheism²¹⁶, with its supplementation in ethics.

For T. Kotarbiński, praxeology had some more advantages. It not only

²¹⁴ T. Kotarbiński, "Prakseologia a ekonomia" [in] *Drogi dociekań własnych. Fragmenty filozoficzne. W setną rocznicę urodzin.*, (1986), Warsaw: PWN, p. 259.

²¹⁵ T. Kotarbiński, *Abecadło praktyczności*, (1974/2) Warsaw: WP, p. 33. trans. L.K.

²¹⁶ J. Kolarzowski, "Supremacja prawdy: filozofia Tadeusza Kotarbińskiego w poszukiwaniu wspólnego fundamentu dla reizmu i etyki niezależnej", [in:] *Myśl Tadeusza Kotarbińskiego i jej współczesna recepcja* (2006), Warsaw: Polska Akademia Nauk, Towarzystwo Naukowe Prakseologii, pp. 27-34.

described the states and features of human actions but welcomed the marxist practicalism (K. Marx's XI thesis on Feuerbach) and foreshadowed the ultimate abolition of philosophy as a science. Praxeology thus conceived could be separated from both the theories of organization, pursued in the West, and from ethics. The secondary quality of ethics in relation to praxeology resulted from the tenets of physicalist materialism, adopted earlier, and the ambiguity of the term 'tool.' The author of the *Praxeology. An introduction to the science of efficient action* wrote:

[...] the knowledge of efficient, productive and economical actions is purely instrumental. Like a knife, it can be used for various purposes, good or bad. Does this imply that we need to abandon the production of knives and using them?²¹⁷

T. Kotarbiński's praxeology proved to be a normative field of science. It is intentional normativity and it encompasses intentions as impulses of human activity. The step from intentional normativity is indeed minimal. Human activity ought to be subjected to all kinds of laws, instructions, regulations. A human individual was supposed to be reduced to the role of a self-perfecting machine so much endowed with agency as they could perfect their own industrial, exploratory and scholarly productivity. The issues of causality thus came to lose all that can be termed *conditio humana*, and which used to be part of the Hellenistic worldview and the view of man.

What is characteristic and worthy of further research is the belief in the law and its power, understood in positivist terms, on the part of a great many marxists and marxist apparatchiks. Juridicizing tendencies are typical of weak states with an unsustainable multi-generational identity, such as the German society.

Not so in praxeology, which abhors the excesses of law in any conditions and systemic realities. No dimensionality on its part ever proved sustainable, not even the US production-to-consumption single-dimensionality, described by the neo-marxist Herbert Marcuse in his famous *One Dimensional Man*²¹⁸.

At the end of the Second World War (1945) T. Kotarbiński was 49 years old. He did not include in his whole output, issues of diversity of work (different value of manual and intellectual labour)²¹⁹, This became a problem which has become a nightmare and to great extent the cause of the disaster of the formation of real socialism. As the service cannot provide the wealth of the middle class in contemporary capitalism, the physical work, which in the

²¹⁷ T. Kotarbiński, *Abecadło praktyczności*, op. cit., p. 67.

²¹⁸ H. Marcuse, *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society* (1991), 2nd ed., Boston: Beacon Press.

²¹⁹ F. Znaniecki, *Upadek cywilizacji zachodu*, wyd. UW, Warszawa 2013.

countries of the Eastern block was equal to the intellectual work could not create a basis for winning the competition with the West. Science and technology in favourable conditions can be a source of significant income and serve to multiply capital accumulation. Effective management on a global scale should therefore take into account the multiplicity of activities and the diversity of ways of acquiring income. Sometimes in the passing of an era it is difficult to see diversity, when this is blocked by doctrinal assumptions.

7.2. Pierre Bourdieu's Praxeology within Sociology – the Axiology of Possession

Through his consistent inclusion of praxeology in social sciences, the French sociologist P. Bourdieu avoided being consumed by the 'demon of theory' and pushed social sciences towards the theory of action. Investigating individual activities and group practice was reflected in the titles of his work, such as *Practical Reason: On the Theory of Action or Practical Sense*. It was also noticeable in the way he used notions that focused societal reflection on acts by individual people. He created a concept of a universal individual pursuing various significance in society. The significance can be achieved by the sense of possession, the socio-professional role, the honours received and the influence on society. One need not only be but also have, e.g. opportunities and create a socio-economic reality around one.

Bourdieu thought that while living in a capitalist society one cannot really free oneself from various forms of admiration for capital²²⁰. He explained in this way the paramount influence and appeal of the economy, contributing to the not-so-obvious development of the concept of *capital*, which sharing some elements, easily transcends the boundaries of some domains of knowledge, determining and delineating their research areas (such as mathematics and history). Along with relative clauses, the term set out on a pan-humanistic career. Beside capital, we encounter the term political capital (translated into votes), social capital, cultural capital, or, descending onto the micro-relations that shape the ethos of employees – the capital of confidence. The relevant notions that take away the weight from capital proved to include symbolic capital and symbolic violence. In his opinion, different kinds of capital can go from one form to another²²¹.

²²⁰ One can just hide the feeling, control it by way of free will and, by means of intellect, dialectically reverse the emotional tendency while remaining in inner perplexity, such as when doing everyday activities: shopping, drafting domestic budgets, and watching TV in particular. The latter was attributed a particularly negative role by Bourdieu. He indicated that it deprives viewers of social self-actualization.

²²¹ P. Bourdieu, *Ce que parler veut dire : L'économie des échanges linguistiques*, (1982) Paris: Fayard.

Bourdieu believed that every social scientist ought to set before themselves a task and an area of its analysis. This is an a-priori activity and one fraught with risk. The research area will be described properly as long as one reveals the hidden, that which is not obvious, something that does not yield to one-factor explanation. Therefore the French scholar described his writing as socio-analysis, making a reference to psychoanalysis of S. Freud, who was supposed to amend this process by making aware and speaking out about that which is buried in the deposits of memory, consciousness or subconsciousness. This is a vital difference because by using this one lexical passkey – socio-analysis – the post-marxist Bourdieu was tapping into the mainstream of European philosophy, which keeps elaborating on the world of humans, beginning from the Platonic cave (and along with Plato's *anamnesis*, ie. remembering the knowledge that is hidden from the beginning of the world). Socioanalysis is then – as is psychoanalysis – 20th century modern forms of the Platonic epistemology.

P. Bourdieu did not write a book that demonstrated a general theory of the field in social sciences²²². However, the very metaphorical term²²³ (Fr. *le champ*) can be explained on the basis of the writer's works. This means a fragment of the social structure characterized by its bringing together individuals and groups concentrated on similar pursuits and rivalling for position within them. The field of social activity pivots around the binding objectives, principles and criteria thought to be particularly important. These Bourdieu would call the stakes in a game that is played in society. The societal field is permeated by a number of processes, but for a sociologist, the most recognizable are those that occur consciously and where the potential of individuals is launched with a big dose of individual initiative. For those that take up this game, the paramount principle that holds in a given field is the way one imagines the prizes, benefits, recognition, any satisfaction, which we shape, above all, in our imagination.

What becomes manifest here is practical antinomy, which science has to overcome when, at the expense of breaking with all forms of operationalism, which silently accepts the basic tenets of practical logic while being unable to objectify them, and which wants to understand for itself, and in itself, the logic of praxis that understands in order to act, but not in order to change or reform it²²⁴.

²²² More on the author's terminological grid see J. Kolarzowski, „Wprowadzenie do teorii socjologiczno-prakseologicznej Pierre'a Bourdieu”, [in] Prawo – Samorząd – Administracja (2014), D. Strus, A. Duk-Majewska eds. Warsaw: Aspra.

²²³ Multiple spatial metaphor use in social sciences was remarked on by S. Ossowski O osobliwościach nauk społecznych. (1962), Warsaw: PWN. This phenomenon in linguistic and statistical terms was subjected to investigation in various world's languages by cognitive linguists: G. Lakoff & M. Johnson in *Metaphors We Live by* (2003), Chicago: University of Chicago Press.

²²⁴ P. Bourdieu, *Zmysł praktyczny*, trans. M. Falski (2008,) Kraków: wyd. WUJ, p.123. Trans. Into English by L.K.

Working mostly by way of mind and imagination, in social life, scientists often lapse into a special kind of antinomy, with the rest of the general public pursuing the practical, guided by profit and trying to minimize effort.

The imaginal apriority in sociology and praxeology is not new, but Bourdieu took it to the remotest extreme of all scholars. Like money was to the father of sociology, G. Simmel, a symbolic form to do with human history, for P. Bourdieu almost all human activity, particularly directed at others, has a symbolic meaning, prevenient of complementary to that which is concrete. For a judge who is handing out the verdict, what matters is the place where it occurs, the tone of voice, the attitude taken, just like for an academic, the site, the audience, and their attention ought to be just as important as the structure of the speech that has been prepared. The acting individual – *homo agens* – is a better or worse social actor, and life forces on us this peculiarity to do, above all, the duties we are to fulfill, in the context and towards others or ourselves, but it is often done in connection with the everyday activities (such as putting on different clothes on different occasions)²²⁵.

Symbolic violence is the most famous term and the heart of Bourdieu's theory, which gave an impetus to anthropology and cultural ethnology. In the simplest terms, it concerns the private and the public. *Symbolic violence* comes to be felt when we come to be brought up and educated. We need to accept it without disputing in order to remain in the existing system, avoid punishment or exclusion. The most significant dimension for *symbolic violence* is 'silent consent' of all concerned. Symbolic violence is just an introduction to symbolic struggle, where all Bourdieu's praxeology potential is exposed as his praxeology is, above all, the praxeology of struggle²²⁶.

The subject matter of social sciences is the reality that encompasses all struggle, individual and collective, striving to preserve or transform the reality; in the focus of attention are those forms of struggle where the stake is the imposition of a legitimate definition of reality and whose often purely symbolic efficacy may contribute to the preservation or abolition of the established order, that is reality²²⁷.

Human morality and the status of the fields is subordinated to struggle occurring in various areas where we are to act. The symbolic quality of these

²²⁵ In several of his works, Bourdieu cites research done on France's workers. Those that paid particular attention to appearance did not always care much about personal hygiene. This forced food producers to use open dressing rooms.

²²⁶ Polish praxeology attained this level upon the death of T. Kotarbiński in 1981, only after J. Rudniański published his *Elementy prakseologicznej teorii walk: z zagadnień kooperacji negatywnej*, Warsaw: PWN, 1983; *Kompromis i walka: sprawność i etyka kooperacji pozytywnej i negatywnej w gęstym otoczeniu społecznym* (1989), Warsaw: IW Pax.

²²⁷ P. Bourdieu, *Zmysł praktyczny*, op.cit., pp. 193-194. retrans L.K.

games, strategies or struggle is obvious for him. In most social situations, morality does occupy a privileged place, but only second to guaranteeing oneself the priority of one's own interests.

As a sociologist I know that morality only works when it is based on structures, mechanisms making people stand to gain from their being moral. So, in order for the appearing something like moral anxiety, it must find support and reinforcement (rewards) in structure. The source of these rewards could be the public (were it to be more enlightened and aware of the manipulations it is subjected to)²²⁸.

The boundaries of the fields are subject to constant struggle. The history of the shaping of activity fields has been about the attainment of an increasing autonomy, being liberated from the influence of people, institutions, external forces. The essential thing here is the imaginary perception of the borderline carried by each participant in the field. The meaning of the borders is materialized externally – as opposed to the peculiarity of the other fields – and internally, that is, towards the participants in the field. Opening up to external influence is tantamount to accepting foreign logic, the legitimacy of another field. For a number of centuries, since the tribal era and as far as recent class economy homogeneity of fields and their separation – distinctions – were striven for. This was served by rituals and the law, declared by those in power.

Since symbolic struggle tends to come short of transgressing the framework defined by the immediate proximity and may only perform partial revolutions, it means that, as we said, its borders are institutionalized tokens of consecration and the testimonies of charisma, such as nobility or school ties, objectivized tokens of respect, apparatus or ceremoniality that result in not only manifesting the social position, but also collective recognition, attributed to it by the mere fact of granting it rights to making such a show of its own significance. [...] 'Status groups' by means of an institutionalized strategy of distinction strive for the recognition of actual differences as permanent and almost natural, and thus legitimate, thus symbolically doubling the distinction effect connected to occupying rare positions in social structure; institutionalized strategies of distinction are the self-knowledge of the dominant class²²⁹.

Contemporarily we are dealing with the homogenization of the fields of human activity and strife between the influences of one area upon others, which in extreme or unfossilized situations (young democracies) may take the

²²⁸ P. Bourdieu, *O telewizji. Panowanie dziennikarstwa*, trans. K. Sztandar-Sztanderska and M. Ziółkowska, ed. M. Jacyno [scholarly redaction and a preface to the Polish edition] (2009), Warsaw: PWN, SW series, p. 88. retrans. L.K.

²²⁹ P. Bourdieu, *Zmysł praktyczny*, op. cit., pp. 189-190.

forms of some of them pushing against the others, like tectonic plates of the earth's crust, which has and may yet cause, deplorable earthquakes.

Bourdieu's concept, developed over the years of investigating the schooling system in France, corroborated on the communities of settlers in North Africa, as applied by him for the description of the world of the media. This opponent of liberal newspeak considered media, ad TV in particular, as the source of a particularly dangerous and immoral social oppression, posing a threat to relatively new democratic institutions, such as the independent judiciary, governments created in the aftermath of free elections, or any other institutions legitimized by collective consciousness.

I would like to demonstrate the existence of a sequence of mechanisms making TV a tool of a particularly harmful form of symbolic violence. Symbolic violence is what often happens with silent complicity of both those subjected to it and the perpetrators. This is happening also because neither are conscious of the fact of its exertion and experiencing. The job of sociology, like any other science, is to reveal what is hidden²³⁰.

The danger from the media is two-fold: external and internal. Like all humanities, sociology in particular too, can be used to reveal and expose to light that which is hidden, mean or manipulated, but it can also serve the purpose of concealing and gratifying all that should be opposed by society. Since I. Kant, who thought that a well-organized society is one where even a bad person will act morally, as much time has passed as since the French revolution, and a number of mechanisms simply do not work. Just as much as the Communist experiment did not prove to be a path that accelerates social or economic development on the expected scale, neither did its demise in the last decade of the 20th century prevent serious dangers: the corporatism of global giants use media to influence societies and their governments.

Despite very strong competition between the journalistic and the political fields, and with the actors from these being engaged in continuous struggle (the journalistic field somehow being part of the political field and having significant influence within it), the fields are brought together by the fact of both being subjected to immediate and very constraining rule of the market and plebiscite. As a consequence, the dominance of the journalistic field boosts the inclination of those actors who perform in the political field to be often subjected to violent and misguided pressure, expectations and demands of the majority, which as a result of the form imposed by the press, take the form of demands having a mobilizing potential²³¹.

At the same time, on the part of television, which in his view should

²³⁰ P. Bourdieu, *O telewizji. Panowanie dziennikarstwa*, op. cit., p. 42.

²³¹ P. Bourdieu, *O telewizji. Panowanie dziennikarstwa*, op. cit., pp. 114-115.

have a role similar to the Socratic maieutic method²³², we are dealing with a number of forms of dishonesty: bad treatment of those having smaller expertise, asking celebrities to talk about things rather foreign to them, placing people alongside one another in panels that would otherwise never met (sociologist of religion and a leader of a cult) so as to build upon thus created cacophony a false image of today and contemporary history. History, built from various unrelated vantage points, is like an unexpected blow, like a blow that is supposed to make the listener or viewer a brainwashed individual, torn away from their identity.

Anything to do with the media, particularly television, is subjected to ranking vote, distorting and degrading all standards:

The effect of all that is that the ever increasing primacy of the journalistic field (which is itself subjected to a growing domination of commercial logic) over the political field – forever tormented by the temptation of demagoguery (particularly when the polls provide it with a tool of doing it in an rationalized fashion) – contributes to the weakening of the autonomy of the political field and at the same time the weakening of the right granted to representatives to refer to their expertise and their authority of being the custodians of collective values²³³.

The destruction of trust in a specialist from the 'box' is, in Bourdieu's opinion, the first step to breaking any injunctions and to using criminal methods so long as this goes undetected. Thence the assault of the respectable sociologist against the media of the 1990s, which he would compare to sports people using doping:

Thus, the increased power of the journalistic field itself increasingly subject to direct or indirect domination by the market model threatens the autonomy of other fields of cultural production. It does so by supporting those actors or enterprises at the very core of these fields that are most inclined to yield to the seduction of "external" profits precisely because they are less rich in capital specific to the field (scientific, literary, or other) and therefore less assured of the specific rewards the field is in a position to guarantee in the short or longer term²³⁴.

The mechanism of creating social roles had become an important problem for Bourdieu: the roles that individual *homo agens* will be using every day in family and society²³⁵. The first criterion of the suitable description of roles is logic. But even pragmatic logic cannot be the sole criterion of the

²³² Trying to reach the truth by asking more and more questions that break language clichés.

²³³ P. Bourdieu, *O telewizji. Panowanie dziennikarstwa*, op. cit., p. 116.

²³⁴ P. Bourdieu, *On Television*, trans. P. Parkhurst Ferguson (1998), NY: The New Press, p. 74.

²³⁵ P. Bourdieu, *Męska dominacja*, trans. L. Kopciewicz, (2004), Warsaw: Oficyna Naukowa.

verification for the complex aspect of human behaviour. Individual behaviour is subjected to group pressure. Behaviour is dictated by a group that often adopts a sinusoidal form. Their logicity depends on the determining by way of an ordering quantifier – time, ways these are felt or perceived.

Unlike logic – the work of thought that is about thinking about the work of thought – praxis precludes any interest in the formal side. Even if there happens to be a return to action itself (whenever automations fail), it will be subordinated to a pursuit of a goal and a pursuit (not necessarily perceived) of maximizing profit from the effort invested. Nor does it have anything in common with a desire for explaining how the result was achieved, or even less with an attempt to understand [...] ²³⁶.

The primacy of interest is for Bourdieu beyond doubt. The boundary for the drive for possession is another human being, and it was only towards the end of the 20th century when it turned out that environmental issues entered a number of fields, taking over relationships between sciences by way of demonstrating the dangers for the existence of mankind on Earth. We learn for our whole lives from cause-and-effect relationships to love relationships and leadership conditions, allowing for vast possibilities of anticipating others' behaviour. *Homo agens*' wishful thinking goes towards the reconciliation of possession with ethics. However, such a situation may occur given some competition, clear rules of conduct and situations that are predictable. The intensive dynamic of changes makes socio-analysis an indispensable science. Before we recognize the dangers that destroy our identities, our interests and political or social structures, we must know enough about them and about us in relation to them. Alas, according to Bourdieu, an era of universal unawareness ²³⁷ is coming in the excess of the tools possessed and information gathered.

Crossroads of praxeology's in the Second Half of the 20th century. We can show methodological dilemmas of praxeology comparing concepts of T. Kotarbiński and P. Bourdieu. For Kotarbiński praxeology is an autonomous branch and *in fine* normative concept of science. For Bourdieu, praxeology emerges from under the pressure of axiology - of the possessive instinct.

²³⁶ P. Bourdieu, *Zmysł praktyczny*, op. cit., p. 123.

²³⁷ Unawareness/unthinking, in Bourdieu's understanding has an array of meanings, which Aristotle gave to the term – a plight that in itself determines guilt because the effort put into gaining knowledge and skills of anticipation were highly insufficient. At the same time the state of unawareness can account for incorrect human activity – unconditionality, passivity, instinctiveness, unintentionality, unconsciousness, automated response.

Part 2

**EFFECTIVE MANAGEMENT
IN ORGANIZATION**

Adam Skrzypek²³⁸

8. Organizational effectiveness in the new economy – the theoretical considerations and practical recommendations

8.1. Introduction

Functioning in the new economy makes organizations look for ways to help them achieve success which is understood as the effective use of a specific management instrument in a given set of circumstances. Organizational success is determined by the capability to ensure the smooth, efficient and effective achievement of the objectives of the organization²³⁹. Each organization aspiring to be effective should have the following characteristics. It shall employ loyal, satisfied and engaged employees whom it readily provides with information. The organization is able to react quickly and adapt to changes²⁴⁰. Effective organizations stand out as highly productive, innovative and creative, which, in business terms, amounts to the process of formulation and implementation of new and innovative ideas in creating new value for customers²⁴¹. In addition, to remain effective it is necessary for an organization to continuously adapt its strategy, systems, structure, leadership style, skills and working style²⁴². Also important is the strategic flexibility, that is, the ability to modify strategies and operations according to the changes in the environment by means of the most effective use of their competences and resources²⁴³. In the new economy organizational effectiveness is an important determinant of the success of an organization²⁴⁴.

²³⁸ PhD, Management Institute, Department of Quality and Knowledge Management Faculty of Economics, University of Maria Curie-Skłodowska.

²³⁹ J.M. Lichtarski, *Struktury zadaniowe. Składniki, własności i uwarunkowania*. Wydawnictwo UE we Wrocławiu, Wrocław 2011, p. 141.

²⁴⁰ E. Skrzypek, *Efektywność jako czynnik sukcesu organizacji*, in: M. Cisek, A. Marciniuk-Kluska (ed.) *Efektywność organizacji*, Wydawnictwo Studio Emka, Warszawa 2013, p. 11.

²⁴¹ E. Skrzypek, *Jakość i efektywność*, Wyd. UMCS Lublin, 2002, p.193.

²⁴² B. Nogalski, P. Niewiadomski, *Marża jako kryterium racjonalności implementacji w elastycznym zorientowanym zakładzie wytwórczym*, in: M. Cisek, A. Marciniuk-Kluska (ed.) *Efektywność organizacji*, Wydawnictwo Studio Emka, Warszawa 2013, p. 12.

²⁴³ B. Nogalski, *Rozważania o modelach biznesowych przedsiębiorstw jako ciekawy poznawczo kierunek badań problematyki zarządzania strategicznego w*: R. Krupski (ed.) *Zarządzanie strategiczne. Modele i kierunki badań*, Wałbrzyska Wyższa Szkoła Zarządzania i Przedsiębiorczości, Wałbrzych 2009, p. 39.

²⁴⁴ A. Skrzypek (ed.) *Knowledge, innovation and quality as factors of the success in the new economy* Department of Quality and Knowledge Management Faculty of Economics, UMCS, Lublin, 2014.

This paper is aimed at identifying the determinants and consequences of the effectiveness based on economic and management literature. It presents personal research results carried out among the winners of the Polish Quality Awards, addressing organizational effectiveness.

8.2. The nature and types of effectiveness

A basic criterion for effective performance is the relation between the actual and desired results set by the organization. Expressing effectiveness in quantitative terms as the ability to create the desired effects from a given set of assets is an important factor and a necessary condition to achieve and increase organizational effectiveness. If the actions are not effective they do not provide the company with expected results. However, achieving the goal is not the only factor determining organizational effectiveness, because reaching goals alone does not ensure organizational effectiveness. Even when goals are met the overall effects may be poor in terms of organizational or market performance. Goal attainment results in effects, whereas effectiveness of activities depends on effects. According to Peter Drucker, the father of modern management science, effectiveness is the key to personal fulfillment and societal progress. He said that effectiveness was the degree to which the aim pursued was achieved²⁴⁵. Accordingly effectiveness is the ability of an organization to achieve its operational targets and implementing its strategy. She also defines effectiveness as a skill, a positive result or responsiveness to the requirements and needs of customers²⁴⁶. Effectiveness in the narrow sense is often understood solely in terms of goal attainment. Effectiveness (narrow sense) can be defined as the extent to which the planned activities are going to be implemented and the planned results achieved, whereas effectiveness is the relationship between the results and resources used²⁴⁷.

According to R. Mc Kenzie effectiveness can be defined as the maximum production resulting from the appropriate location of resources, known limitations of supply (costs borne by the producers) and demand (the tastes of consumers)²⁴⁸. M. Holstein-Beck defines effectiveness as:

- performance in techno-economic terms,
- competencies in organizational and bureaucratic areas,

²⁴⁵ E. Skrzypek, Koszty jakości w przedsiębiorstwie w ujęciu wybitnych twórców jakości, in: E. Skrzypek (ed.) *Wielcy twórcy jakości w Polsce i na świecie*, Wyd. UMCS Lublin 2007, p. 173.

²⁴⁶ E. Skrzypek, *Efektywność podstawą sukcesu organizacji*, in: *Materiały z Konferencji Naukowej nt. Efektywność systemów zarządzania*, (ed.) E. Skrzypek, ZEJiZW UMCS, Lublin 2000, p. 263.

²⁴⁷ R. Matwiejczyk, *Efektywność – próba interpretacji*, „Przegląd Organizacji” 2000, nr 11, p. 27.

²⁴⁸ R.B. Mc Kenzie, D.K. Kamerschen, C. Nardinelli, *Ekonomia*, NSZZ Solidarność 1999, p. 6.

- performance in the perspective of bureaucratic relations, communication skills in the personal sphere,
- functionality in human resources perspective and morality in eco-perspective²⁴⁹.

In the knowledge-based economy intangible resources are potential drivers of the market success of an organization²⁵⁰. In business practice, there is no single tool that would serve to measure the potential of the organization in terms of its intangible resources.

The effectiveness of enterprises means the actual ability to enhance market presence and performance in relation to the expenditure sacrificed in order to obtain them. To measure the effectiveness, indicator analysis is used and economic indicators are compared and analyzed.

Economic effectiveness are the effects obtained from economic activities in relation to the expenses which are incurred in connection with those activities.

In terms of the knowledge based economy **effectiveness of scientific research**, that is, the overall effectiveness of the research, the ratio of the results obtained from the work of scientific research in relation to research potential and to exerted effort.

Financial effectiveness was regarded as a sufficient measure of effectiveness of the whole organization and financial result was all that mattered. The cause of this was the stability of markets, where success was dependent on the scale and fields of action. Over time, markets have begun to dynamically change, have developed new methods of communication, presence on the market requires a high degree of flexibility, the current determinants of success have been replaced by the strength of customer relationships, motivated and qualified employees, innovation and intangible resources such as knowledge and intellectual capital. Despite such deep changes, financial measures are still an important component of the assessment and management of the organization. Financial perspective allows to obtain information about the financial state of the company. It provides guidance to the formulation of a specific development strategy, focusing on increasing revenue, customer value, improved cost structure and increase in the effectiveness of resources used. The use of financial metrics allows quick analysis of the economic aspects of undertaken actions. Indicator analysis informs whether the currently implemented strategy helps to improve the financial performance of the organization.

²⁴⁹ M. Holstein- Beck, *Być albo nie być menedżerem*, Indor, Warszawa 1997, p. 37-63.

²⁵⁰ K.P. Cohen, J. Low, The value creation index: quantifying intangible value, *Strategy & Leadership* 29/5, 2001.

Operational effectiveness focuses on reducing the use of inputs per unit of production. It is reflected in the increase in labour productivity, the reduction of losses on shortages, cost reduction or shortening the production cycle. One can therefore conclude that the tools used to measure, in this context, are the time, productivity, and cost.

Market Effectiveness is focused on how to best satisfy the expectations and needs of customers. Determinants of success include the product range and its features, the organization’s relationship with customers, its reputation, brand, customer service, that is, customer focus, which is the most important determinant of market effectiveness.

Enterprise functioning in conditions of the new economy should be competitive (compare Table 8.1) and innovative.

Table 8.1
Characteristics of highly competitive enterprises in the knowledge-based economy

Characteristics	
Flexibility	This is the feature of companies that systematically examine the market environment and modify the previously adopted strategic assumptions, so as to bring them into line with the market.
Gathering knowledge	Consists of determining the sources of knowledge in the proximal and distal environment in order to improve the effectiveness of the company. Organizations that identify the sources of knowledge efficiently or efficiently develop and disseminate knowledge.
Cooperation with other organizations	Competitive organizations need to be able to interact within the framework of integrated value chains, where each company is a part adding value to the customer. Flexible processes that can be easily adapted to the systems of processes of other organizations facilitate cooperation and help achieve the expected value added.
Improving the effectiveness and efficiency of business conduct	Organizations aim to conduct business in a targeted and economically justified manner. They develop a system of processes, which ensures that strategic objectives are met and satisfactory results are obtained.

Source: E. Skrzypek, M. Hofman, Zarządzanie procesami w przedsiębiorstwie. Identyfikowanie, pomiar, usprawnianie. Oficyna Wydawnicza Wolters Kluwer, Warszawa 2010, p. 28-29.

Entrepreneurs who effectively manage innovation achieve tangible benefits such as better adaptation of the company to the environment, improved quality and competitiveness of their sales, streamlining the organization and work methods, improved occupational safety conditions,

higher performance based on richer modern technical equipment and improved export capacity²⁵¹.

8.3. Knowledge as an intangible resource in the new economy

The modern economy is characterized by a high degree of variability and complexity resulting from multiple processes, including the significant development of knowledge and the related human capital, changes in knowledge and constant development of information and communications technologies. These processes force organizations to become learning organizations, in which the creation, acquisition and transfer of knowledge determine the innovative drive of an organization²⁵². Appropriate use by the organizations of the existing potential of organizational knowledge determines the extent of their innovation effort and impact. According to L. Koziół knowledge is at the heart of innovation²⁵³. In terms of the new economy it is necessary to continuously transfer knowledge. Exchange of knowledge between organizations is increasing. It is based on the knowledge alliances leading to the higher level of organizational learning²⁵⁴. Detailed characteristics of the intangible resource areas are contained in Table 8.2.

In an organization, one can identify the following sources of knowledge:

- knowledge in the mind of an individual based on conceptual skills and cognitive abilities, the value of abstract knowledge,
- knowledge of an individual which action-oriented and contextual, only partially explicit eg. ability to solve problems, learning by doing,
- knowledge rooted in culture, socially conditioned, open to negotiation, combining elements of socialization,
- knowledge embedded in the group that is located in the routine and the processes, it consists of the resources and the relationships between roles, procedures and technologies, it is dependent on the capacity and the key competence of the organization,
- coded knowledge, which is represented by symbols and artifacts, it consists of symbols, designs, manuals and electronic media.

²⁵¹ W. Grudzewski, I. Hejduk, *Projektowanie systemów zarządzania*, Difin, Warszawa 2001, p. 48.

²⁵² A. Skrzypek, P. Senkus, *Conditions and consequences of management of change in the organization in the knowledge society* in: A. Skrzypek (ed.) *Quality and risk in conditions of changing business environment* Editor A., Wyd. Department of Quality and Knowledge Management Faculty of Economics, University of Maria Curie-Skłodowska, Lublin 2015, p. 111-122.

²⁵³ L. Koziół, *System innowacyjności współczesnych przedsiębiorstw*, *Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie*, 2009, nr 1 (12), p. 62.

²⁵⁴ A. Wójtowicz, L. Koziół, *Koncepcja aliansów wiedzy w procesie innowacji*, *Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie*, 2012, nr 1(20) p. 215.

Noteworthy seems the approach of K. Pavitt to innovation because it indicates to three important processes that overlap²⁵⁵:

- the creation of scientific and technological knowledge,
- the transformation of knowledge into a prototype,
- respond to market demand and shaping it.

These processes affect the development of the effectiveness of the organization.

Table 8.2
Characteristics of intangible resources areas according to Annie Green

Areas	The characteristics
1. The client	Economic value: the nature of the relationship with clients (e.g., loyalty, satisfaction, duration), built by the organizations thanks to its products or services and customer service
2. Competitor	Economic value: the position on the market (e.g. reputation, market share, image, position/strength brand)
3. Processes	Economic value: the company operates and creates added value for their employees and clients (e.g., policy, procedures, techniques and methodology)
4. The employee	Economic value: synergy from employee potential (such as knowledge, skills, competencies, know-how)
5. Information	Economic value: the capacity to collect, process and distribute information and knowledge in an appropriate form to the right people at the right time
6. Product/service	Economic value: from business development opportunities, understanding market expectations, preferences and requirements of customers
7. Partnership	Economic value: financial, strategic, hierarchical alliances with external stakeholders that build the organization's competitive advantage on the market
8. Technology	Economic value: investments made by the company in the range of devices (hardware) and software (software) aimed at supporting its operation in the areas of management, processes and research and development.

Source: A. Green, Prioritization of sources of intangible for use in enterprise balance scorecard valuation models of information technology (IT) firms, George Washington University, Washington, DC, 2004.

8.4. Effectiveness in the opinion of the Polish Quality Award winners

The study included all winners of the Polish Quality Award for the years 1995-2011. The number of respondents was 46, representing 85% of all

²⁵⁵ A. Pomykalski, Zarządzanie procesem innowacji. Wybrane kierunki badawcze, in: S. Lachowicz, B. Nogalski (ed.), Osiągnięcia i perspektywy nauk o zarządzaniu, Wolters Kluwer business, Warszawa 2010, p. 313.

surveyed organizations. The organizations surveyed were diverse in terms of the number of employees. The dominant part of the organizations were employing above 250 people (63% of those surveyed), employing from 151-250 people accounted for 13% of the research population, with up to 150 people 10, 9% below 100 people i.e. (from 51 to 100) 6.5% and from 10-50 people 4.3% of enterprises. In terms of ownership 52.1% of companies were public organizations and 48.8% private. Respondents examined employed foreign capital to a minor extent – 7 respondents (15.2%). Investigated organizations and companies are active on the local and regional market (31.1%), three carries on business in the scale of more than regional, six on a nationwide scale and 21, representing 45.5%, on an international scale. Almost half of the respondents exported its products, the scale of the export is varied. 7% of respondents export up to 20% of its production, 11% up to 40% of production 8.9% up to 60% of production, three companies exporting from 81-100% of its products.

Effectiveness both in theory and practice is defined very broadly as economic, organizational, financial, ecological, etc. It is treated as an important tool for competitiveness. Therefore, firms were asked how they understand effectiveness. According to 67.4% of respondents it is the ability to realize the company's strategy and achieve objectives. 60.9% of respondents believed that this is the resulting effect of investment, 58.7% identified effectiveness with high quality products that met customers' expectations, for 39.1% of respondents effectiveness meant better financial results, only 17.4% of respondents indicated that effectiveness is the key to competitiveness. Understanding effectiveness as a positive result has been challenged by 84.8% of respondents, and only 15.2% of respondents were in favour of the indicated understanding of effectiveness (Figure 8.1).

A major problem from the point of view of opportunities to improve the effectiveness of the knowledge-based economy can be the establishment of the relationship between an effective knowledge management and the creation of added value²⁵⁶. The winners of the Polish Quality Awards in 91.3% of cases have recognized that there is a relationship between an effective knowledge management and the creation of added value in the organization, 4.3% responded negatively and the same number had no opinion on this issue.

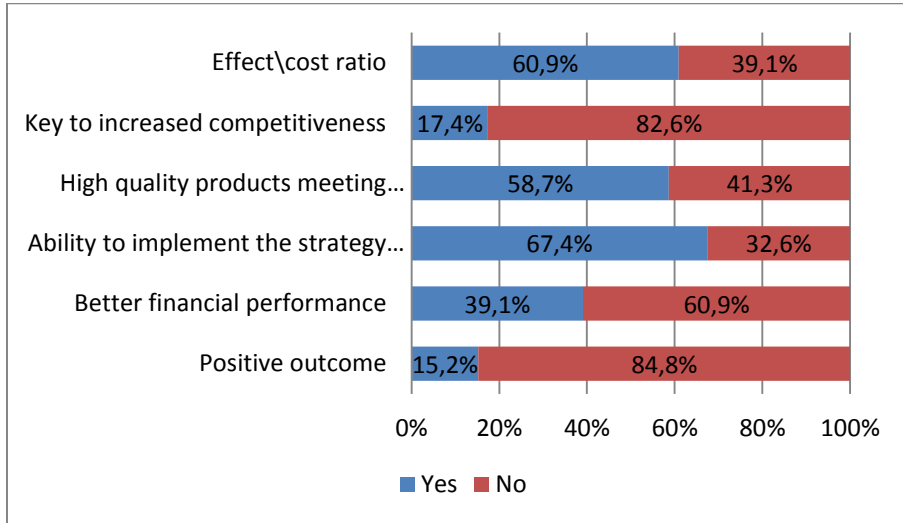
Among the effects possible to obtain as a result of the application of the methods of knowledge management the most important were the increase of creative ideas and creating the conditions for a greater use of knowledge (73.9% of replies). 58.7% of respondents indicated that the proposals may contribute to the reduction of the costs (Figure 8.2).

²⁵⁶ A. Skrzypek, Wiedza jako podstawa paradygmatu nowej gospodarki, 'Problemy Jakości' 2015, 7-8, p. 8-14.

Part 2. EFFECTIVE MANAGEMENT IN ORGANIZATION

Figure 8.1

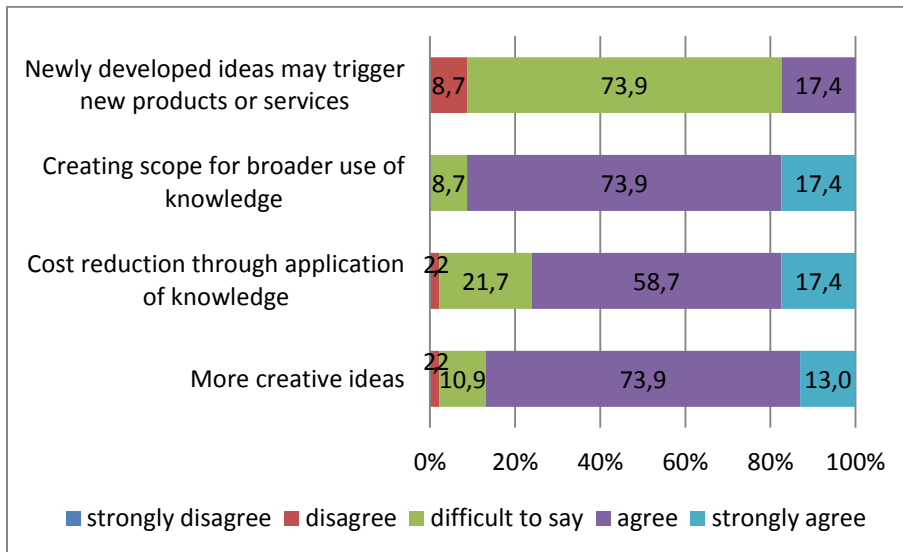
Ways of understanding effectiveness by the winners of the Polish Quality Award



Source: own study.

Figure 8.2

Effects possible to obtain as a result of the application of knowledge management methods and tools in your organization



Source: own study.

8.5. Summary

In conditions of continuous change and global competition in the knowledge-based economy²⁵⁷ the increase in effectiveness is becoming a necessity for any organization, and not a matter of choice. Effectiveness leads to organizational competitiveness of organizations functioning in a changing environment. In the new economy the role of intangible resources, including organizational knowledge is growing. Organizational effectiveness in many areas, including knowledge management and quality becomes an important indicator of market success. The winners of the Polish Quality Award treat effectiveness as a capacity for strategy implementation and a key to increasing competitiveness and improving the quality of the market offer.

Edyta Bombiak²⁵⁸, Anna Świrska²⁵⁹

9. Measuring the effectiveness of human capital management in the knowledge-based economy

*It is better to approximate measure what matters,
than accurately measure what is irrelevant.*

L. Edvinsson

9.1. Introduction

The modern economy, known as the "knowledge economy", creates many challenges for modern organizations. One of its characteristic features is to treat people as a valuable resource and source of competitive advantage, and not, as previously, as part of the cost. As a result, employees become a capital, which is valuable and worth investing in. This raises the need for a new approach to management.

The consequence of treating people as a source of competitive advantage is the demand for the integration of a human capital management strategy with the overall business strategy. This implies the need for the

²⁵⁷ A. Skrzypek (ed), Knowledge, innovation and quality as factors of the success in the new economy, Department of Knowledge Management Faculty of Economics UMCS Lublin, 2014.

²⁵⁸ Siedlce University of Natural Sciences and Humanities, edyta.bombiak@uph.edu.pl

²⁵⁹ Siedlce University of Natural Sciences and Humanities, anna.swirska@uph.edu.pl

practice of human resource management, not only at the operational level, but also at the strategic one, and hence develop a system for measuring the effectiveness of this process. Acquiring the objective knowledge about the effectiveness of human capital management, which will help understanding the relationship between the state of the capital and the success of the organization, becomes essential for achieving a competitive advantage.

In practice, many companies focus only on the financial results, skipping the role of measuring the value contributed by employees to organizations. Management devotes far more attention to cost supervision than managing the most valuable asset of the organization, that is the people, and the capital embodied within them. In case of threat of loss of competitive position on the market, they first search for a reduction of expenditure through downsizing. But in an economy where value creation depends on the human capital and other intangible assets, it is necessary to value this capital. However, while it is relatively easy to measure the tangible assets of the company, the methods of testing the human resources are not entirely clear and constantly evoke discussion.

10.2. Human capital in a knowledge-based economy

The concept of a knowledge-based economy emerged in economic literature relatively recently²⁶⁰. The development of knowledge has taken place in the whole of human history, but recently a strong intensification of the phenomena of economic development, associated with a wide use of knowledge, has been observed. The current economy needs more knowledge than ever²⁶¹.

The term "knowledge economy" is used interchangeably with such terms as the information, network and digital economy, and finally the new economy. This term is ambiguous and interpreted inconsistently. The vast majority of attempts of defining it are based on immeasurable features. It is an economy where knowledge becomes the priority factor in determining the rate of economic growth at the expense of state assets and resources²⁶². It is based on the production, distribution and expeditious use of practical

²⁶⁰ J. Woroniecki, *Nowa gospodarka: Miraż czy rzeczywistość? Doktryna – praktyka – optyka OECD*, [in:] *„Społeczeństwo oparte na wiedzy”*, [ed.] W. Welfe, Społeczna Szkoła Przedsiębiorstwa i Zarządzania w Łodzi, Łódź 2001, p. 9.

²⁶¹ A. Olechnicka, G. Gorzelak, *Innowacyjny potencjał polskich regionów*, [in:] L. Zienkowski [ed.], *„Wiedza a wzrost gospodarczy”*, Wydawnictwo Naukowe Scholar, Warszawa 2003, p. 122.

²⁶² E. Dworak, T. Grabia i in., *„Gospodarka oparta na wiedzy, innowacyjność i rynek pracy”*, Wydawnictwo Łódzkiego Uniwersytetu, Łódź 2014, p. 14.

knowledge and information²⁶³. P. Drucker describes this economy as economic order, in which knowledge, not raw materials, labour or capital, is the most important resource and as a social order where the social disparities based on knowledge are key challenges²⁶⁴.

Regarding a source of competitive advantage, it can be said that the knowledge economy is the economic system that uses the intellectual potential of employees²⁶⁵. The knowledge derived from company employees, and gained by the company activity experience on the market, not only creates favourable conditions for the implementation of the strategy focused on value growth, but also allows efficient and sustainable development and stabilizes the condition of the company, especially in an economic crisis. In the "knowledge economy", the market success increasingly depends on the efficient management of knowledge and human capital. In these circumstances, the human factor, which is the creator and administrator of knowledge, both at the individual and organizational level, is becoming increasingly important. Therefore, the ability to multiply the human capital is crucial. That provides the chance to exploit the opportunities of the environment and to maximize the creative potential of the organization.

Human capital is a specific type of capital that does not have its own market and cannot be traded. Generally, it is considered as features and characteristics gathered within human (knowledge, skills, abilities, health, motivation, values) that have a specific value, and provide a secure source of potential income for both, the employee as the owner of human capital, as well as for the organization that uses such values, on pre-defined conditions²⁶⁶. Human capital is a category with a complex structure comprising a number of components, as illustrated in Figure 9.1. It is also part of a wider value, which is an intellectual capital. Subsequently, the intellectual capital is a value that emerges from the created, and acquired by the organization, knowledge which are carried mainly by the employees. It represents the sum of the multiple components based on the knowledge²⁶⁷. All in all, the main role in the creation of intellectual capital is attributed to employees.

²⁶³ Raport OECD „The Knowledge Based Economy”, 1996.

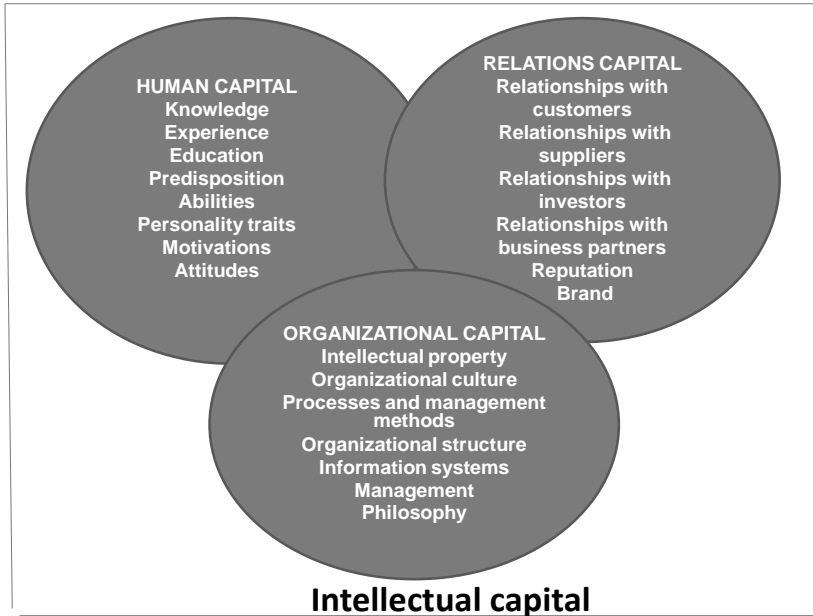
²⁶⁴ P. Drucker, „*Post-Capitalist society*”, HarperCollins, New York 1993, p. 15.

²⁶⁵ D. Makulska, Kluczowe czynniki rozwoju w gospodarce opartej na wiedzy, p. 170, http://kolegia.sgh.waw.pl/pl/KAE/struktura/IRG/publikacje/Documents/pim88_7.pdf (15.04.2016).

²⁶⁶ Król H., Ludwiczynski A. [ed.], Zarządzanie zasobami ludzkimi. Tworzenie kapitału ludzkiego organizacji, Wydawnictwo Naukowe PWN, Warszawa 2006., pp. 96-98.

²⁶⁷ T.A. Stewart, *Intellectual Capital: The Wealth of New Organizations*, Nicholas Brealey Publishing LTD. London 1997, [cited:] A. Jarugowa, J. Fijałkowska, *Rachunkowość i zarządzanie kapitałem intelektualnym. Koncepcje i praktyka*, Ośrodek Doradztwa i Doskonalenia Kadr, Gdańsk 2002, pp. 58-59.

Figure 9.1
Human capital as a component of intellectual capital



Source: own elaboration on the basis of literature.

The diversity of human assets from tangible also assets creates different way of their management. The specificity of human capital, in particular its complexity and uniqueness, carries different consequences, such as the problem of measuring the value of this capital. It is due to the fact that not all elements of human capital are clearly quantifiable.

9.3. Assessment of human capital

Human capital in its qualitative aspect is identified with the competences of employees. The value of employee competencies thus reflects the value of the accumulated human capital. They are defined as dispositions in terms of knowledge, skills and attitudes allowing to realize professional tasks at the appropriate level²⁶⁸. It is a collection of what the employee knows, and knows how to do, as well as the intellectual and physical

²⁶⁸ G. Filipowicz, Zarządzania kompetencjami zawodowymi, PWE, Warszawa, 2004, p. 97.

feasibility and psychological attitude to the task²⁶⁹. They have the competence to correctly perform the work. It is not possible to effectively manage human resources without measurement of the competence value. In fact, the measurement is an effective tool that supports evaluation processes. Assessment of the competences is the process of determining the relative value of employee competence, both hard elements such as knowledge and skills as well as the soft, i.e. motivations, attitudes, personality traits taking into account the specific structure of company posts, expectations and objectives of the company. There are two approaches enumerated in the process of evaluating the competence of employees: quantitative and qualitative. The quantitative approach focuses on trying to estimate the value of the competence of the staff in monetary units. It is necessary for the comprehensive accounting and reporting. The qualitative approach is oriented to determine the level of employees' competences by using a scoring system and non-financial indicators, which provide information on the status of these assets and changes in their level.

Diagnosing the competence level, in terms of quality, is carried out in the periodic evaluations of the employees. Methods such as: observation, tests, the Assessment Centre method or the 360 degrees method can be used for this purpose. These tools have to be adapted for the diagnosis of competence. The most common tools used in the measurement of employee competencies include: observation scales and competency tests. Although the qualitative diagnosis of the competence potential does not allow the estimation of competence in monetary units, but enables determining their level in the point scale. The information concerning the different levels of the competences between the employees are useful for human resources management.

Regarding the economic (financial) approach to estimating the value of employees potential, literature distinguishes two approaches: income and cost²⁷⁰. The discounted revenue streams developed by E. Flamholtz²⁷¹ is an example of the income approach, in which the value of human capital is equal to the present value of the expected economic benefits achieved through their use. The starting point in this method is to assess the benefits that can be equated with the profit or cash flow. A positive annual cash flow is the difference between the revenues generated by the employee and the costs incurred by his employment, i.e. the total remuneration, training, and expenditure on the maintenance of the position. These streams are discounted

²⁶⁹ Compare T. Oleksyn, Zarządzanie kompetencjami. Teoria i praktyka, Oficyna Ekonomiczna Kraków 2006, p. 23 and next.

²⁷⁰ P. Bochniarz, K. Gugała, Budowanie i pomiar kapitału ludzkiego w firmie, Poltext, Warszawa 2005, pp. 19-27.

²⁷¹ J. Fitz-Enz, Rentowność inwestycji w kapitał ludzki, Oficyna Ekonomiczna, Kraków 2001, p. 120 and next.

Part 2. EFFECTIVE MANAGEMENT IN ORGANIZATION

by the rate determined on the basis of interests of securities, taking into account the probability of taking up different positions during an employee's career and assuming a specified time of his/her cooperation with the organization. The value of human potential is described as the sum of discounted streams of income within the prescribed period of the analysis. Table 9.1 shows an example of an estimation of the competence with this method of a sales representative who is employed for 3 years.

Table 9.1
Estimating the value of human capital using the discounted cash flows

Forecast for the employee career path			
Year	Possible position	Probability of holding the position	Probability of leaving the company
2013	Sales representative	100%	15%
	Sales manager	0%	
2014	Sales representative	80%	25%
	Sales manager	20%	
2015	Sales representative	60%	50%
	Sales manager	40%	
The annual positive cash flow for the position:			
Sales representative	250 000		
Sales manager	350 000		
Discount rate	6%		
Calculation of expenditures	Expected value		Discounted value
The annual positive cash flow in 2013	85%*100%*250 000= 212 000 zł		212 000 zł
The annual positive cash flow in 2013	75%*(80%*250 000+20%*350 000)=202 500 zł		191 038 zł
The annual positive cash flow in 2013	50%*(60%*250 000+40%*350 000)=145 000 zł		129 049 zł
The value of the employee's competence potential at the end of 2015			532 087 zł

Source: own study on the basis of: P. Bochniarz, K. Gugala, Budowanie i pomiar kapitału ludzkiego w firmie, Poltext, Warszawa 2005, pp. 19-20.

Estimating the value of human capital using the discounted cash flows requires the adoption of certain assumptions, concerning the future career of the employee or period of employment. These assumptions are a kind of forecast, however, in practice the employee may decide to leave the organization at any time. The model also does not consider such issues as: the

changes in labour productivity dependent on the physical or mental features of the person, the effect of burnout, or changes in the level of motivation. The principal difficulty with this method is, however, to separate all the economic benefits that have been achieved through the involvement of a particular employee. In order to calculate it correctly it is necessary to include the benefits which came from other assets, which in practice is not easy, because certain results usually are achieved as a result of the involvement of many different resources, both tangible and intangible.

Another way to measure the value of human resources is based on the relationship between the capital and the income generated by it²⁷². The value of the human capital of the particular organization is determined by discounting its future income. The mathematical formula for calculating the value was offered by Lev B. and A. Schwartz²⁷³:

$$Vr = \sum_{t=r}^T \frac{I(t)}{(1+i)^{t-r}}$$

where: Vr - value of human age potential r
I (t) – annual salary till the retirement
t – age of the retirement
i – discount rate

The presented method of estimating the value of human capital, however, has flaws. Firstly, it is based on a not entirely accurate assumption that the market properly measures the value of employees' potential. Meanwhile, wages often depend on subjective factors, which means that the same employee in different organizations can receive different sums of remuneration. The model also contains many simplifications, it does not take into account the possibility that the employee can leave the organization, which in today's dynamic environment is a common phenomenon, because no organization guarantees employment security any longer.

In the accounting area, human capital co-creates economic benefits, but also involves cost. Therefore, the valuation of the employee's potential, which uses cost methods, is based on the determination of costs associated with the acquisition and use of this employee. The approach based on the historical costs usually considers such expenditure categories as: fixed and variable remuneration, extra benefits, training, expenses on adaptations.

²⁷² R.S. Domański, *Kapitał ludzki i wzrost gospodarczy*, PWN, Warszawa 1993, p. 51.

²⁷³ B. Lev, A. Schwartz, *On the use of the economic concept of human capital in financial statements*, *The Accounting Review*, January 1971.

These costs are amortized over a certain period of time²⁷⁴. An example of determining the value of human capital on the basis of this method are presented in Table 9.2.

Table 9.2
The calculation of the value of human capital cost-method

Year	Expenditure on training (zł)	Amortization (zł)	Expenses not amortized	Rotation %	The value of competences at the end of the year
2012	100 000	10 000	90 000	0	90 000
2013	110 000	11 000	99 000	5	179 550
2014	115 000	11 500	103 500	6	266 067
2015	112 000	11 200	100 800	8	337517,64

Source: own study on the basis of: G. Urbanek, Wycena aktywów niematerialnych przedsiębiorstwa, PWE, Warszawa 2008, p. 113-114.

This method allows a quite reliable estimate of the value of competence provided, taking into account all costs related to their acquisition and development, and the factors reducing the value of such competences i.e. outdated of knowledge. The disadvantages of this approach may include the subjectivity of depreciation, which does not always adequately reflect the decrease in the value of the assets of human nature, the prognostic turnover of the ratio and the fact that the historical cost does not necessarily accurately reflects the economic value of the assets of competence.

It can be concluded that the measurement of value and the level of competence of employees is a complex process and requires the development of specific tools and collecting particular details. The approaches: quantitative and qualitative are not mutually exclusive to each other, but complement each other. Each of them provides a different set of information on the competence resources, so it is reasonable to treat them as complementary. However, the effort and the time that the process of measuring the competence consumes means that only a few companies are taking activities in this regard. This reduces the efficiency of the process of human capital management – because you cannot effectively manage any resource without its measurement.

Measuring the efficiency of human capital management, however, requires combining the activities involved in the area of personnel policy with the economic results of the company. Thus, it cannot be limited only to the evaluation of competence. It becomes necessary to develop a system of indicators that will assess whether the HR processes in the organization are running smoothly and human capital generates added value.

²⁷⁴ G. Łukasiewicz, Kapitał ludzki organizacji. Pomiar i sprawozdawczość, PWN, Warszawa 2009, p. 54.

9.4. Measures of human capital management effectiveness

Human capital management is a method of managing the employment, aiming to gain a competitive advantage through strategic positioning of the highly committed and skilled workers, using a variety of techniques: cultural, structural and personnel²⁷⁵. It is a process involving a series of steps associated with the formation of the human potential of the organization. There are three main, and overlapping areas of management²⁷⁶:

- The area of human capital formation,
- The area of human capital usage,
- The area of transformation of human capital into intellectual capital.

Human capital formation includes planning and recruiting employees with development, remuneration, relocation and shaping interpersonal relationships. The main elements of value creation in the area of human capital are: organizing the work, leading teams, motivation, performance management, assessment and communication. The area of transformation of human capital into intellectual capital includes activities related to codifying workers' knowledge, using it to create intellectual property and the evolution of favourable relationships with external stakeholders.

There are many different factors affecting the results obtained in the area of human capital management. These are both external determinants: economic (demand and supply of labour, the unemployment rate), cultural (the value system of society, the level of education, standards and customs), political (the political system, economic policy), technical (technological progress), as well as internal factors: economic and financial determinants (the level of costs, revenues, profit), social (organizational culture, innovation, entrepreneurship), human resources and organizational (the level and structure of employment, responsibilities of employees), technical (equipment, the degree of mechanization) and management (style, organizational structure, information flow)²⁷⁷. Depending on the purpose of the research, one can apply a number of criteria and evaluation measures of the effectiveness of human capital management. One approach for monitoring the effectiveness of personnel policy is a set of measures relating to the various stages of human resources process. There are such measures as: measures relating to the selection and development of employees, motivation, time management, labour efficiency, measures of

²⁷⁵ M. Armstrong, *Zarządzanie zasobami ludzkimi*, Oficyna Ekonomiczna, Kraków 2005, p. 29.

²⁷⁶ Compare: A. Pocztowski, *Zarządzanie zasobami ludzkimi. Strategie-Procesy-Metody*, PWE, Warszawa 2008, p. 41.

²⁷⁷ L. Płatkowska-Prokopczyk, *Badanie ekonomicznej efektywności wybranych elementów zarządzania zasobami ludzkimi w przedsiębiorstwach rolniczych w województwie opolskim*, Uniwersytet Opolski, Studia i Monografie nr 324, Opole 2003, p. 26-28.

Part 2. EFFECTIVE MANAGEMENT IN ORGANIZATION

personnel policy and personnel service. The main diagnostics areas are presented in Table 9.3.

Table 9.3

Indicators of the effectiveness of particular steps in the process of human resources management

Diagnostic area	Examples of indicators
Employment planning	Time filling the post The number of newly employed Number of overtime hours The rate of growth of employment in relation to production growth The dynamics of changes in the level and structure of employment
Staff selection	Duration of recruiting Recruitment costs The level of retention among new employees The level of internal customer satisfaction
Periodic assessment	Number of evaluated employees Distribution of ratings obtained Number of employees in relation to which personal decisions were made as a result of the evaluation
Remuneration	Total labour cost as a percentage of operating costs The costs of additional benefits as a percentage of wages Average wage per employee
Motivation	The level of employee satisfaction Employee loyalty
Employees development	Amount of training Number of employees trained The percentage of employees with higher education or an average level of education of employees Training costs per employee The training costs as a percentage of wages The percentage of employees covered by mentoring Number of employees with a planned growth path The percentage of workers who, after taking part in the training gained promotion
Labour efficiency	Labour productivity per employee Labour productivity per one working hour Rate of implementation of the rules by employees Labour costs Profitability of labour costs
Fluctuation and Outplacement	The cost fluctuations Severance cost Acceptance rate Lay-offs indicator

Source: own study on the basis of literature

As the human capital is an important component of the intellectual capital, there also may be found in the models of intellectual capital management proposals for the measurement of the human component.

The most popular model Navigator Skandia enumerates among others²⁷⁸:

- Leadership Index
- An index of motivation
- Authorization index
- Number of employees
- Fluctuation of employees
- The average work experience in the company
- The number of managers
- The number of women in managerial positions
- The average age of workers
- Time for training
- The percentage of managers after doctoral studies

They have a non-financial nature and primarily assess the effectiveness of the human resources policy. Analysis of their level is important to assess the validity of personnel decisions taken by the management as it allows comparing the situation in the company with other companies in the industry.

Although human capital is immaterial in the process of assessing the effectiveness of its management, financial ratios are also used. It is due to the fact that investment in human capital often involves a high cost. In order to effectively control the amount of expenditure and, above all, the increase of the value of human capital it is important to properly monitor the changes. It is vital, therefore, to have a set of measures allowing to capture the relationship between the management of the specific capital and the financial results of the company. In literature, there is proposed set of financial indicators to analyze the profitability of human capital. The most popular are presented in Table 9.4.

HC ROI or return on human capital can be considered a key indicator of profitability. It states how much money is obtained from each PLN (dollar, euro) invested in human capital. It can be assumed that it is the lever of wages and non-wage benefits. Positive result means that labour expenses are transformed into revenues of the company. Negative indicates that human resources absorb more investment than generate income²⁷⁹.

Complementing the measuring of the added value, the indicator HCVA (Human Capital Value Added) may be used. This indicator reflects the level of net profit per employee in full-time work, minus the costs of training. This indicator is considered as an important efficiency criterion for assessment of the management of the company.

²⁷⁸ L. Edvinsson, M. Malone, *Kapitał intelektualny w przedsiębiorstwie*, PWN, Warszawa 2001, p. 56 and next.

²⁷⁹ J.B. Stępień, *Mierniki funkcji kadrowej*, „Personel i Zarządzanie”, nr 13/14, 2001, p. 46-47.

Part 2. EFFECTIVE MANAGEMENT IN ORGANIZATION

Table 9.4
Financial performance measures of human capital management

Ratio	Formula
HCROI - Human Capital Return On Investment	$\frac{\text{Incomes} - \text{non-payment cost}}{\text{Number of employees in full-time work} * \text{average payment}}$
HCVA - Human Capital Value Added	$\frac{\text{Incomes} - (\text{operational cost} - \text{total labour cost})}{\text{Number of employees per full-time employment}}$
HCR - Human Capital Revenue	$\frac{\text{Incomes from sale}}{\text{Number of employees per full-time employment}}$
Profit per FTE (Profit per Full Time Equivalent)	$\frac{\text{Sale profits}}{\text{Number of employees per full-time employment}}$
Pre tax & interest profit per FTE	$\frac{\text{Gross profit}}{\text{Number of employees per full-time employment}}$

Source: on the basis: G. Mentel, A. Migala-Warchoł, M Sobolewski, Wpływ kapitału ludzkiego na wyniki finansowe organizacji, Zeszyty Naukowe Uniwersytetu Szczecińskiego no. 803, „Finanse, Rynki Finansowe, Ubezpieczenia” no 66/2014, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin, p. 395–408.

One of the most effective monitoring of human resources elements is the analysis of the indicator Profit per FTE (Profit per Full Time Equivalent). It shows what portion of the profit from the sale a single employee can make. The indicator HCR "Human Capital Revenue" means, the revenue from human capital, and it is a measure of human productivity in the enterprise. The index "Pre interest & tax profit per FTE" allows to observe the efficiency of employees, to take into account changes in employment and their impact on the financial result of the entire enterprise.

The above mentioned indicators are easy to calculate, and easy to use in the current assessment of the functioning of the enterprise. What is more, they permit comparing the company with other companies (within the same industry or sector) in terms of human capital and its impact on the functioning of the entity.

Their interpretation is also carried out on the basis of a comparison of the obtained results and frame of references. However, due to the limited number of parameters taken into account in the various indicators, none of them should be the sole basis for assessing the productivity of human capital in the company. Undoubtedly, the choice of indicators is a problem as there is no single best criterion for assessing the effectiveness of human capital management. Thus, there is no possibility to suggest one synthetic measure. Taking into account the uniqueness of human capital, it is necessary to develop a system of indicators adapted to a particular organization, its objectives, strategy, culture and personnel policy.

9.5. Summary

The knowledge economy is a gradual transition from the material-economy to the economy based on the potential of science and information. Therefore, the intellectual potential plays a crucial role in the organization development. Human capital management is still an emerging approach to managing competencies, characteristics and talents inherent in staff. The specificity of human capital is expressed by the fact that its individual components are unique and difficult to imitate by competitors, as well as difficult to measure and record due to the dispersion and qualitative character. The emerging new model of the economy, however, raises the need for a new approach to the management of this resource.

The evolution towards a model of human capital requires developing a system for measuring the effectiveness, which consists of a set of measures and is integrated with controlling the overall enterprise, allowing to diagnose the profitability of investment in human capital and its contribution to creating added value. Such a system permits controlling the processes in specific areas of human capital management in which order to make the optimum use of employees' potential. However, this measurement cannot be based only on the individual indices of employment, productivity and labour costs, used selectively and in isolation from the strategic objectives of the organization. In the process of analyzing the effectiveness of labour management financial and non-financial measures should be applied. Joining them together is necessary to illustrate the real situation in the enterprise, and therefore also essential in the effective management of the entire organization. A comprehensive approach to performance management of human capital should therefore benefit from the all methods developed in various scientific fields.

Anna Pietruszka-Ortyl²⁸⁰

10. Trust and organizational effectiveness

10.1. Introduction

In the organization and management theory, effectiveness is used as a category of business assessment. T. Pszczołowski proposes two interpretations of this term. One interpretation is simple, base: in accordance with it, an effective

²⁸⁰ PhD, Department of Organizational Behaviours, Cracow University of Economics.

action is the one that gives positively assessed results. According to the second interpretation, the researcher treats this assessment as a relation between result and goal, but without a condition that a goal is supposed to come from a prior moment of starting action in relation to the time of future achievement of a result²⁸¹. B. Ziębicki emphasizes that organizational effectiveness is characterized by the variability of its criteria and values in time, hence, the main challenge related to organizational effectiveness is the identification of its relevant criteria. Therefore, it is most often presented in the form of multi-dimensional indicators that cover various organizational attributes²⁸².

Analysing the evolution of the concept of organizational effectiveness, it is not possible not to note basic regularities. Namely, the more contemporary the concept of dimensions and criteria of organizational effectiveness, the higher the share of qualitative indicators and departure from universal measures towards dedicated and specific solutions for a specific organization. It results in the growing role of trust as a factor substantially forming relevant dimensions and criteria of organizational effectiveness.

Referring to the criteria of organizational effectiveness according to J.P. Campell²⁸³, trust underlies many of these indicators. For instance, trust essentially determines the indicator of morale, control, internal consistency, consistency of goals, the role and consistency of norms or information management and communication. Based on the concept of organizational effectiveness by M. Holstein-Beck, who brings its essence to the following dimensions: performance, efficiency, competency, functionality, morality, communication skills²⁸⁴, an important role of trust is found in the criteria of fairness, common sense, acceptability or exchangeability. Finally, analysing the distribution board of new performance measures²⁸⁵, from among all 16 criteria, trust can be defined as an element determining the level of at least the following measures: quality, customer loyalty, employee retention, customer satisfaction or coefficient of commands to new customers. This proves a progressing growth in the weight of trust as a factor forming organizational effectiveness.

A strong positive correlation between trust and organizational effectiveness is multi-plane. Firstly, trust can be treated as a catalyst of organizational effectiveness at the micro-level; it stimulates the development of the social capital of a company in the intra-organizational dimension.

²⁸¹ T. Pszczołowski, *Celowość, skuteczność, efektywność*, "Prakseologia" 1977 nr 3 (63), p. 11.

²⁸² B. Ziębicki, *Efektywność organizacyjna podmiotów sektora publicznego*, Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie, Seria specjalna: Monografie nr 234, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014, p. 22-23.

²⁸³ Ibidem, p. 23-26.

²⁸⁴ M. Holstein-Beck, *Szkice o pracy*, Książka i wiedza, Warszawa 1987, p. 35.

²⁸⁵ B. Ziębicki, *Efektywność organizacyjna podmiotów sektora publicznego*, op. cit, p. 53.

Secondly, it is the basis for the functioning of organizational behaviours at the group level, especially in the context of activities of virtual teams. Finally, it is a prerequisite of the effective functioning of inter-organizational networks. Additionally, it is a context of the analysis of cooperation effectiveness at the meso level, defined as cooperation between individuals acting for the benefit of various organizations but cooperating within a network, usually in the form of a virtual team. The meso level in deliberations on cooperative behaviours includes namely all relations connecting individual, team and interorganizational area of analysis dedicated to actions and attitudes of individuals, groups and entire organizations. It focuses on the identification and diagnosis of any relationships that determine the associations of groups or other organizations and groups from various organizations as well as between individual employees working for different entities to achieve a common goal.

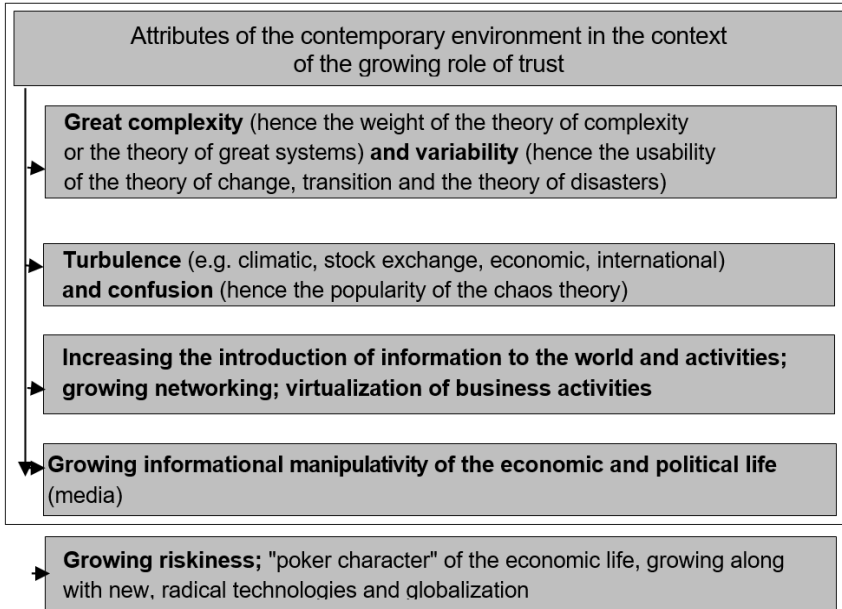
A growing role of trust from the perspective of a new society and knowledge-based economy is presented in Figure 10.1.

Therefore, in the paper an attempt has been made to indicate the relation between trust and organizational effectiveness from the point of view of individuals, the whole organization, activities of virtual teams and the functioning of a network.

Trust is thus one of the basic component values of various intangible assets. It is, after all, the foundation of organizational culture, market reputation and relations between a company and its business partners. The good reputation of a company is a result of four fundamental factors: responsibility, trust, credibility and reliability, and originates from its relations with five strategic supporters: employees, customers, investors, allies and society. On the other hand, in the case of shaping organizational culture, trust is a necessary condition to build a knowledge-friendly culture in a company. Only trust contributes to clearly addressing employee concerns related to loss of power, prestige and usability in connection with the transfer of their knowledge. Pointing out a deeper sense of any actions taken, a decision is also made concerning employee engagement in work for the common benefit²⁸⁶.

²⁸⁶ E. Głuszek, *Zaufanie jako istotny składnik kapitału intelektualnego przedsiębiorstwa* [in:] *Zmiana warunkiem sukcesu. Integracja, globalizacja, regionalizacja – wyzwania dla przedsiębiorstw*, J. Skalik [ed.], Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław 2002, p. 123-129.

Figure 10.1
Trust in changing conditions and contexts



Source: K. Żądło, *O wartości zaufania. Komunikacja i budowa zaufania a rynkowa wartość przedsiębiorstwa*, Poltext, Warszawa 2014, p. 61.

For those reasons, in this paper, basic research challenges in the form of the following issues have emerged:

- whether trust affects the efficiency of modern organizations or not,
- what is the essence and specificity of trust,
- in which dimensions trust should be analyzed in the context of management of organizations,
- how to develop inter and intra organizational trust in all its dimensions.

Trust is thus one of the basic component values of various intangible assets. It is, after all, the foundation of organizational culture, market reputation and relations between a company and its business partners. The good reputation of a company is a result of four fundamental factors: responsibility, trust, credibility and reliability, and originates from its relations with five strategic supporters: employees, customers, investors, allies and society. On the other hand, in the case of shaping organizational culture, trust is a necessary condition to build a knowledge-friendly culture in a company.

Only trust contributes to clearly addressing employee concerns related to loss of power, prestige and usability in connection with the transfer of their knowledge. Pointing out a deeper sense of any actions taken, a decision is also made concerning employee engagement in work for the common benefit²⁸⁷.

Processes occurring among economic entities in the form of entering into transactions and contracts are supported by trust which reduces the uncertainty of the parties and may lead to a reduction in transaction costs. The mechanism of these processes is based on long-term experience that enables a shortened time of entering into transactions, learning and verification of a partner's credibility. In this way certain social norms are strengthened, based on trust, which enable the free flow of knowledge not only open but, above all, tacit²⁸⁸.

10.2. Essence of trust

The theory of trust examines the term in various perspectives (Table 10.1). F. Fukuyama defines trust as a mechanism based on the assumption that other members of a given society are characterized by honest and cooperative behaviour, based on jointly designated norms. He reasons that in the broad meaning trust can be treated as a cultural feature affecting the economic relationships of companies and behaviours of their managers and employees. Therefore, he parametrizes trust as an economic category, which has its measurable value in the conduct of managers of social groups and employees²⁸⁹.

²⁸⁷ E. Głuszek, *Zaufanie jako istotny składnik kapitału intelektualnego przedsiębiorstwa* [in:] *Zmiana warunkiem sukcesu. Integracja, globalizacja, regionalizacja – wyzwania dla przedsiębiorstw*, J. Skalik [ed.], Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław 2002, p. 123-129.

²⁸⁸ A. Libertowska, *Zaufanie i współpraca w sieci jako odpowiedź na przemiany społeczno-gospodarcze. Wybrane aspekty* [in:] *Przedsiębiorczość i Zarządzanie*, Tom XV, Zeszyt 6, Część I, *Organizacje wobec wyzwań XXI wieku*, A. Tomaszczuk [ed.], Wydawnictwo Społecznej Akademii Nauk, Łódź 2014, p. 305-306.

²⁸⁹ F. Fukuyama, *Zaufanie. Kapitał społeczny a droga do dobrobytu*, Wydawnictwo Naukowe PWN, Warszawa-Wrocław 1997, p. 38-40.

Table 10.1
Review of the definition of trust

J.C. Jarillo ²⁹⁰
Trust comes down to the assumption that if one of the partners(A) encounters difficulties in fulfilling their explicit or implicit business obligations, they may count that their ally(B) will behave as they themselves would(A), in the situation when all resources of the supporting partner(B) were at their total disposal(A).
D.F. Jennings, K. Art., L.M. Gillin, Ch. Christodoloy ²⁹¹
A mutual belief that neither party will behave opportunistically and will not take advantage of the other partner's weakness.
G. Dent ²⁹²
A combination of several risk taking levels, and the lowest level of trust is termed as calculated risk and is based on legal sanctions for a specific industry. The level of accepting calculated risk consists of the fact that a company assumes that the other party will behave reasonably only to avoid these sanctions.
P. Sztompka ²⁹³
Trust is an expectation expressed in acting towards the partner that their reactions will be beneficial for us; The author distinguishes the following types of trust: <ul style="list-style-type: none"> • <i>personal trust</i>, towards specific, known individuals; • <i>positional trust, a priori</i> towards everyone who occupies a specified, trust-worthy social position (fulfils a specified role); • <i>commercial trust</i>, expressed in a purchase decision conviction of reliability, quality, usability of goods and indirect reliability and competencies of their manufacturers; • <i>technological trust</i>, reflected in faith in the reliability of technical systems that surround us in the contemporary world and whose use is necessary for us to live, and, at the same time, whose details of functioning are unknown to us; • <i>institutional trust</i>, towards great organizations, and indirectly towards masses of anonymous officers and representatives of such organizations performing diverse social roles; • <i>system trust</i>, expressed by a sense of existential safety, based on an opinion on effectiveness, reliability, justice of the socio-political system or system within which we are living.

Source: prepared by the author on the basis of literature indicated in the table.

A. Nieścior, in turn, treats trust as a relation rather than an object. He defines it as a triple-unit relation among the individual given trust Z (man), the trusting individual U (man) and the reference space Q (feature). He concludes that trust as an economic category may be understood in a broad meaning as a relation between an organization and society and as a relation between members of a given organization and in a narrower meaning - as a relation between different organizations (suppliers, recipients). In addition, this author also lists such criteria of trust as: reputation, assessment, currently obtained results, control and supervision, situational context, visual appearance, openness, loyalty, persistence, competence, righteousness. He emphasizes, at

²⁹⁰ J.C. Jarillo, *On Strategic Networks*, "Strategic Management Journal" 1988, no 9 vol 1, p. 36.

²⁹¹ D.F. Jennings, K. Art, L.M. Gillin, Ch. Christodoloy, *Determinants of Trust in Global Strategic Alliances: AMRAD and the Australian Biomedical Industry*, "Competitiveness Review" 2000, no 10 vol 1, p. 26.

²⁹² G. Dent, *Lawyers and Trust in Business Alliances*, "The Business Lawyer" 2002, no 58 vol 1, p. 51.

²⁹³ P. Sztompka, *Socjologia. Analiza społeczeństwa*, Wydawnictwo Zak, Kraków 2002, p. 326-327.

the same time, that some of these indicators refer to an organization as a whole (company) and some of them refer to people, namely employees²⁹⁴. At the same time, the most often mentioned dimensions of trust include friendliness, predictability, reliability, credibility and competencies²⁹⁵.

Therefore, trust is described by specific parameters, namely²⁹⁶:

- it appears under the conditions of acceptance of behaviours of the other party and dependence on these behaviours,
- it describes some degree of predictability,
- other resources can be invested in it, expecting potential benefits,
- it is complex and suitable for transformations,
- it is characterized by a small flexibility and a big "adhesion",
- it is voluntary and is not forced cooperation: it must result from a free choice, rather than compulsion,
- it is conscious: each party is aware of the trust of the other party,
- it may be temporary and is dynamic: it evolves along with the development of cooperation,
- it may be used in relation to other resources both as a substitute and complementary good,
- it requires continuous maintaining: it must be periodically renewed and confirmed,
- it does not have any predictable rate of wear,
- it is based on communication,
- it is interpersonal and characterizes specific individuals,
- it is placed in relations among entities,
- it is, by nature, a positive term though it suggests exposure to attack on the part of the partner.

To sum up the conducted deliberations and analysing existing definition binding in the literature with a simultaneous attempt to refer the issues of trust to management practice and organizational effectiveness, it should be emphasized that trust²⁹⁷:

²⁹⁴ A. Nieścior, *Zaufanie w normach ISO serii 9000:2000*, "Problemy Jakości" 1999, no 9, p. 23-24.

²⁹⁵ M. Bugdol, *Wymiary i problemy zarządzania organizacją opartą na zaufaniu*, Wydawnictwo Uniwersytetu Jagiellońskiego, Kraków 2010, p. 31.

²⁹⁶ M. Bratnicki, P. Kordel, *Zaufanie a dialektyka procesu tworzenia strategii w przedsiębiorstwie*, "Przegląd Organizacji" 2002, no 9, p. 8; A. Argandoña, *Sharing Out in Alliances: Trust and Ethics*, "Journal of Business Ethics" 1999, no 21/2 vol 3, p. 221; W.M. Grudzewski, I.K. Hejduk, A. Sankowska, M. Wańtuchowicz, *Zarządzanie zaufaniem w przedsiębiorstwie. Koncepcja, narzędzia, zastosowania*, Oficyna a Wolters Kluwer Business, Kraków 2009, p. 20.

²⁹⁷ A. Nieścior, *Zaufanie w normach ISO serii 9000:2000*, "Problemy Jakości" 1999, no 9, p. 23-24; M. Bugdol, *Wymiary i problemy zarządzania organizacją opartą na zaufaniu*, op.cit, p. 16.

- builds social capital, since it indirectly contributes to growth in productivity and is favourable for economic development (e.g. it positively affects social exchange processes and reinforces managerial decisions),
- it is fundamental in social interactions (enables cooperation and implementation of common goals, enables development of social bonds, new contacts, business projects, etc.),
- is an organizational resource, which, in accordance with the process approach, is both at the input and at the output of social processes and stimulates processes of economic and social exchange,
- it is an expectation of individuals, groups, organization in respect of the conduct of other individuals, groups and partners.

10.3. Individual level of trust as the basis for exchange of knowledge in an organization

Trust establishes bases for new types of social relations and is perceived in terms of various benefits, is an important element in team work, development of interpersonal relations, leadership, setting of goals and negotiations²⁹⁸. Its essence is a positive waiting that nobody will act against us: by word, act or decision. Trust is a relation between three elements: the individual given trust Z, the trusting individual U and the space where this relation takes place Q²⁹⁹.

In the opinion of D. Harrison, L.L. Cummings and N.L. Chervany, trust is a result of the impact of five forces, which may be treated as its categories. These dimensions, namely personality-based trust, calculative-based trust, institution-based trust, cognition-based trust and knowledge-based trust, after considering the element of time, form a comprehensive process of building trust in an organization. Researchers have distinguished and characterized the following forms of trust³⁰⁰:

- calculative-based trust, defined as a common element of simple calculation of costs and benefits arising from given relation, based mostly on a reasonable belief in profitability of a given relation,
- personality-based trust, arising from the structure of human personality and concentrated around innate and acquired qualities, in the form of the ability to empathize with the situation of others, sensitivity, responsibility and emotional restraint,
- institution-based trust, arising from formal regulations causing a sense of

²⁹⁸ E. Skrzypek, *Wpływ zaufania i relacji na rozwój kapitału społecznego organizacji*, [in:] *Funkcjonowanie i doskonalenie zarządzania – aspekty społeczne*, U. Balon, T. Sikora [ed.], Wydawnictwo Naukowe PTTŻ, Kraków 2015, p. 166.

²⁹⁹ Ibidem, p. 162.

³⁰⁰ J. Paliszkievicz, *Zaufanie w zarządzaniu*, PWN, Warszawa 2013, p. 45.

safety resulting from formal securities which in turn determine clarity and stability of the situation,

- cognition-based trust, describing cognitive features of individuals, which determine the method of observation of mutual behaviours, reactions, ways of conduct,
- knowledge-based trust, which is the most durable, because it develops on the basis of the gained and collected experience, and its mechanism of formation is synonymous with learning processes.

The decision-making process concerning knowledge exchange may involve various kinds of trust, namely: self-trust, coming down to an analysis of one's own capacities and motives of information exchange, trust towards the partner concerning their competencies and ethical attitudes and trust in relation to the context, consisting of a positive assessment of credibility of the organizational context, in which exchange takes place (it can be understood as a climate of intra-organizational trust)³⁰¹.

The role of trust in the organizational creation of knowledge is clearly emphasized by H. Scarbrough and K. Amaeshi. They present a continuum of knowledge exchange and place it in the process of generation of knowledge established in the form of commercialization of technology. They link the role and a specific type of trust to the level of information exchange. They take account of the following dimensions of trust³⁰²:

- interpersonal trust determined by personality; its level depends on the innate and acquired personality traits of the individuals forming an organization; the ability to empathize with the situation of other people, sensitivity, responsibility and emotional restraint are some of the traits that determine high personal tendency to trust,
- institutional trust resulting from commonly accepted and undisputed formal regulations, social norms and structures; consists of shaping a sense of safety on the basis of formal protections and all these elements determine the transparency and stability of the situation,
- network trust the essence and the guarantor of the social network in which individuals function; consists of formal and informal as well as direct and indirect bonds between the participants based on the sense of a community, exceptionality and high loyalty, where affiliation is a sign of status.

The authors stress the importance of trust, arguing it is important in the

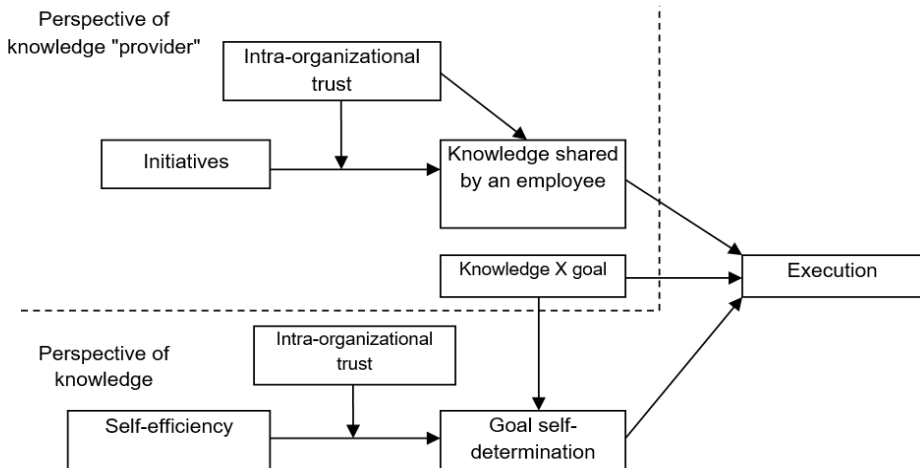
³⁰¹ A. Sankowska, *Wpływ zaufania na zarządzanie przedsiębiorstwem. Perspektywa wewnątrz-organizacyjna*, Difin, Warszawa 2011, p. 116.

³⁰² H. Scarbrough, K. Amaeshi, *Evaluation practices in the commercialization of early stage technology: the role of trust [in:] The evolution of business knowledge*, H. Scarbrough [ed], Oxford University Press, New York 2008, p. 225-226.

event of the reduction of costs of the verification of acquired knowledge. Trust leads to higher openness in communication and knowledge sharing. It eliminates the need to assess the value of acquired knowledge, provides the basis for perception of knowledge exchange in the categories of sharing resources of similar value.

From the point of view of organizational management effectiveness, trust is perceived as a factor motivating to transfer knowledge and even as a context of knowledge sharing. In the conditions when employees have high self-esteem and self-awareness, they set ambitious goals that are pursued on the basis of intra-organizational trust, manifesting itself in a high assessment of credibility obtained from other knowledge specialists (Figure 10.2).

Figure 10.2
Trust as a basis for knowledge sharing



Source: A. Sankowska, *Wpływ zaufania na zarządzanie przedsiębiorstwem. Perspektywa wewnątrzorganizacyjna*, Difin, Warszawa 2011, p. 126.

Referring to the individual dimension of trust and summing up the previous deliberations, it should be emphasized that trust affects organizational coordination, activates creative thinking, encourages participation in transactions, promotes exchange of information, increases the company's capacity of survival in crisis situations, is the key factor for building a network of cooperation and social consistency and enables the creation of civic culture³⁰³.

³⁰³ E. Skrzypek, *Wpływ zaufania i relacji na rozwój kapitału społecznego organizacji*, [in:] *Funkcjonowanie i doskonalenie zarządzania – aspekty społeczne*, op. cit, p. 162.

10.4. Bases of trust in the virtual environment

In virtual groups, the process of building interpersonal trust proceeds differently. Its participants are deprived of basic instruments of building trust by way of direct contacts in the form of a number of diverse signals, such as appearance, gestures, facial expression and behaviour. Based on this, they are unable to reasonably assess and calculate the parties (truster and confidant) with regard to the nature of newly created relations from the point of view of kindness, fairness, competences and predictability.

Cooperation in the virtual space is initiated as a result of the so-called quick trust that is regarded to be one of the most important kinds of trust, without which individuals would not be able to effectively establish new relations. It is created suddenly along with the beginning of task implementation. It can be traced back to the expert reputation enjoyed by the team members from the beginning of cooperation and to natural human tendencies and the willingness to have trust in this knowledge³⁰⁴.

Quick trust derives from the process of establishment of group stratification, in which the leading role is played by the level of expectations with regard to the competences of an individual and his/her contribution to the solution of group tasks. Therefore, an initially high level of trust observed with regard to virtual teams stems from a high level of expectations. Along with the development of interactions and acquisition of knowledge about other members, the competencies attributed to individuals are subjected to a practical assessment, which in consequence makes the trust stronger or weaker. However, the levels of expectations alone do not depend solely on the status of an individual, but on the conditions of a given situation³⁰⁵.

This type of trust, typical of virtual environments, may be built in 3 ways - local community members extend their contacts to the virtual environment, members of the virtual community establish direct relations or community members maintain only virtual relations³⁰⁶. However, it should be remembered that this is a very non-durable type of trust. It does not constitute sufficient grounds for the development of a virtual community of activities and requires

³⁰⁴ J. Bendkowski, *Przesłanki rozwoju zaufania w środowisku wirtualnym* [in:] *Człowiek i praca w zmieniającej się organizacji. W kierunku respektowania interesów przedsiębiorców*, M. Gableta, A. Pietroń-Piszczek, Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu nr 223, Wrocław 2011, p. 84-85.

³⁰⁵ Ibidem, p. 85-86.

³⁰⁶ See: A. Pietruszka-Ortyl, *Multiculturalism in the context management of professionals*, [in:] *Organizacja i Zarządzanie. Kwartalnik Naukowy* nr 1(25), Wydawnictwo Politechniki Śląskiej, Gliwice 2014, p. 107.

the emergence of specified situational factors depending on organizational, community and technological premises³⁰⁷.

The organizational dimension includes any factors affecting the level of trust in a community of activities which can be influenced by the organization. The community dimension applies to any premises at the level of a community that determines the processes of building quick trust. The technological dimension refers to any technical conditions related to creating trust in a virtual space of activities³⁰⁸.

Remaining in the perspective of meso divagations concerning trust and its impact on organizational effectiveness, attention should be paid to the factors shaping its level between the subordinate and the superior. Among many analyses dedicated to the indicators with the greatest impact on trust in the superior, the following conditions for trust are most often indicated: availability, competencies, persistence, discretion, honesty, loyalty, fairness, keeping promises, and openness (Figure 10.3)³⁰⁹.

J. Paliszkiwicz presents a model that reflects the impact of various factors on managers' trust in an organization. In the proposed model, trust has a form of the following dimensions³¹⁰:

- credibility related to the used process of communication, method of informing, showing interest in other people, continuous development and openness to novelties,
- intentions concerning openness of a given person, clear communication of needs, knowledge sharing, a positive attitude to colleagues and organization, perception of values and norms, respect for others' dignity, keeping promises, responsibility and engagement,
- competencies defined as knowledge, skills, behaviours, advantages and attitudes distinctive of those who achieve the highest effectiveness.

In addition, trust is also affected a by individual traits of an individual who is to be trusted and the environment where an individual works, including organizational culture. On the contrary, trust determines operating results³¹¹.

³⁰⁷ Ibidem, p. 108.

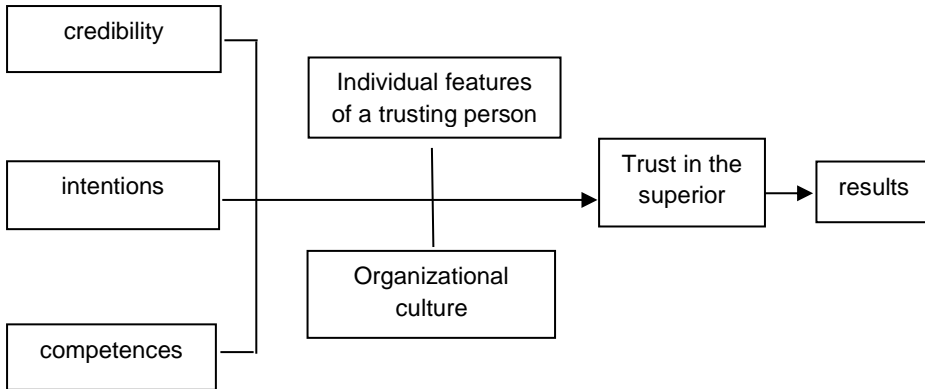
³⁰⁸ J. Bendkowski, *Przełanki rozwoju zaufania w środowisku wirtualnym*, op. cit., p. 87-88.

³⁰⁹ J. Paliszkiwicz, *Zaufanie w zarządzaniu*, op.cit, p. 84.

³¹⁰ Ibidem, p. 85.

³¹¹ Ibidem, p. 85.

Figure 10.3
Trust between the subordinate and the superior



Source: J. Paliszkievicz, *Zaufanie w zarządzaniu*, PWN, Warszawa 2013, p. 85.

10.5. Inter-organizational plane of trust

In the context of inter-organizational cooperation, trust is defined by R.J. Lewicki, D.J. McAllister and R.J. Bies, who include it in the categories of some positive expectations relating to a partner's behaviour. On the contrary, the authors define distrust as negative expectations concerning co-operator's conduct³¹². In the opinion of researchers, trust and distrust cannot be examined as two extreme categories in one continuum, since a low level of distrust does not come down to a high level of trust, and a high level of distrust does not come down to a low level of trust. Owing to multiple aspects and dimensions and relational variability, different factors determine trust and distrust.

Trust reduces complexity and uncertainty by elimination of unwanted behaviours from specific deliberations and assuming that the desired behaviours are certain. In turn, distrust reduces complexity as a result of accepting the assumptions about high probability and even certainty of undertaking unwanted behaviours³¹³. In consequence, the authors suggest a trust and distrust matrix, in which they characterize four potential situations shaping mutual relations – a low level of trust and a low level of distrust, a high level of trust and a low level of distrust, a low level of trust and a high level of distrust, and a high level of trust and a high level of distrust.

A low level of trust and a low level of distrust is present when a

³¹² R.J. Lewicki, D.J. McAllister, R.J. Bies, *Trust and Distrust: New Relationships and Realities*, "Academy of Management Review" 1998, no 23, vol 3, p. 439.

³¹³ *Ibidem*, p. 440, 444.

relational participant has no reasons to be arrogant or exceptionally watchful and distrustful, as relations are limited only to several aspects. Parties are completely independent from each other, and communication between them is essential and occasional, without any intimacy. A high level of trust and a low level of distrust is characterized by the fact that relational participants have clear premises to trust each other and at the same time no reasons to show distrust. Mutual contacts strengthen independence of partners, and the manner of task implementation and effective mutual co-operation are favourable for increasing the level of trust. Therefore, communication is frequent, complex, and the parties are willing to intensify their cooperation. A low level of trust and a high level of distrust is a situation in which partners do not have reasons to show great trust, while they have clear premises towards alertness and distrust. The previous cooperation carries many uncomfortable experience, thus the allies use multiple mechanisms of mutual control, and communication is characterized by scepticism and sarcasm. A high level of trust and a high level of distrust is characterized, on the other hand, by the fact that the partners have clear reasons to show in some domains a high level of trust and in other aspects – a high level of distrust, which is determined by many past positive and negative experiences from cooperation. These conditions are recognized by the authors as the most commonly encountered in the circumstances of organizational functioning in the 21st century³¹⁴.

On the other hand, T.K. Das and B-S. Teng postulate that the issues of the specific nature of trust in network structures should be examined from the perspective of two other dimensions – trust and control, with regard to the third category – risk. At the same time, they distinguish two kinds of risk in the constellations: relational risk and operational risk.

Relational risk determines the probability and consequences of functioning in a cooperation, which does not satisfy the partners, because it does not yield the expected benefits. The level of this kind of risk increases along with the probability of opportunistic behaviours of the partners reflected in avoiding, cheating, information distortion or resources appropriation. On the contrary, operational risk includes intensive rivalry, expansion of the group of new partners or arrangement of unfavourable conditions for the functioning of an agreement³¹⁵.

In the opinion of these authors, the dimension of trust in the constellations also has two forms: of trust resulting from a business reputation and trust resulting from a partner's competencies. Trust based on reputation

³¹⁴ Ibidem, pp. 446-447.

³¹⁵ T.K. Das, B-S. Teng, *Trust, Control, and Risk in Strategic Alliances: An Integrated Framework*, „Organization Studies” 2001, no 22 vol 2, p. 253.

originates from goodwill, fair intentions and a partner's righteousness. As a result, it directly affects the level of relational risk. On the other hand, trust based on the ally's competencies gives an organization confidence that its coalition has sufficient resources (also skills and competencies) to pursue cooperation tasks, namely directly reduces operational risk³¹⁶.

In the case of control, in accordance with the presented model, its three types should be considered, namely: process control, result control and social control. The two former types are formal control, whereas social control is informal. The process control focuses on the monitoring and analysis of the correctness of the processes conducted in agreement. Thus it may cover reasons and the course of opportunistic activities of parent companies. The result control comes down to a reliable assessment of all partners' activities. Therefore, the former type of formal control affects the level of relational risk, and the second one affects the level of operational risk. The level of both risks may be thus determined by social control, consisting in shaping common values, attitudes, principles and beliefs, for the use of which members of partner companies are rewarded. Convergent organizational cultures are the best base for a reduction in risk of cooperation and building trust³¹⁷.

In addition, T.K. Das and B-S. Teng suggest mechanisms of shaping trust in network structures. They treat trust building techniques as a tool supporting an organization in the acquisition of information on the basis of which partner's reliability can be assessed. Among them, the authors indicate: taking risk, fair conduct, communication, internal adaptation³¹⁸.

Shaping trust by taking risk is an effective mechanism, since trust and risk are mutually supplementary categories. Taking operational risk in an alliance, organizations must show at least minimum trust. Then the principle "I trust you, because you put your trust in me" is triggered. Building trust by way of fair conduct consists of obtaining benefits from an agreement, proportional to contributions made in the form of tangible and intangible resources. Increasing the level of trust by communication is an effective technique, since open and unlimited information transfer is the proof of a high level of trust. In addition, efficient communication enables continuously diagnosing the reliability of allies and is a base for interactions, thanks to which employees apply mutual norms and values. Internal adaptation contributes to a generation of a high level of trust since it comes down to adjustment of all

³¹⁶ Ibidem, p. 256-258.

³¹⁷ Ibidem, p. 259-262.

³¹⁸ T.K. Das, B-S. Teng, *Between Trust and Control: Developing Confidence in Partner Cooperation in Alliances*, "Academy of Management Review" 1998, no 23 vol 3, p. 503.

partners' organizational cultures³¹⁹.

Shaping trust is thus becoming one of the superior projects to be faced by organizations operating or planning cooperation in network structures. Trust is the building material of social capital allowing companies to enter into relations easier, exchange knowledge and run interests³²⁰. What is characteristic, it is also a basic parameter of relational capital of a company, which, in turn, by determining company linkages, shapes its level of intellectual capital. Hence from the point of view of the constellation participant it is desirable to have its ability to generate "relational quality"³²¹ which describes a scope in which partners feel freely and trust in each other by taking mutual cooperation, which is determined by: partners' competencies, loyalty (as a result of sincerity and truthfulness), good intentions of allies, fairness and impartiality and righteousness³²². "Relational quality" should be thus seen as an important feature of effective network agreement, since this attribute:

- enables introducing trust as a valid element that supplements other alliance management and control tools,
- supports the development of cooperation beyond the scope covered by the alliance contract, which can further lead to starting projects raising value of the agreement,
- contributes to solving conflicts and disputes being a normal result of functioning in cooperation,

accelerates actions that are necessary from the point of view of fast changes in the competitive network environment³²³.

10.6. Conclusions

From the above deliberations, it seems that one of the most important catalysts from the point of view of the effective functioning of a network is trust that, apart from tightening relations between partner organizations, also improves flexibility of the agreement, shortens cooperation management processes increasing, at the same time, their quality. Its high level enables preparation of favourable mechanisms of knowledge transfer and creation and guarantees limitation in opportunistic behaviours of partners. Along with its

³¹⁹ Ibidem, p. 504-505.

³²⁰ A. Fazlagić, *Pomiar kapitału społecznego w budowie gospodarki opartej na wiedzy w Polsce*, "Problemy Jakości" 2004 no 1, p. 5.

³²¹ Relational quality is a broader term than trust, but it grows from it and is based on it. It contains additional elements in the form of fitting organizational cultures or decision-making styles.

³²² A. Argandoña, *Sharing Out in Alliances: Trust and Ethics*, p. 222.

³²³ A. Ariño, J. de la Torre, P. Smith Ring, *Relational Quality: Managing Trust in Corporate Alliances*, "California Management Review" 2001, no 44 vol 1, p. 123.

increase, the constellation evolves towards value creation based on intangible resources. By reducing transaction costs, it predisposes allies to invest and exchange tacit knowledge without worrying about its hostile takeover.

Trust is thus a platform between knowledge and ignorance, and is strictly related to knowledge management – is a condition of the successful implementation of this concept in inter-organizational cooperation. In addition, it is the necessary condition for suitable use of other intellectual assets by:

- numerous professional cooperation relations and networks, thanks to which functional and hierarchical dependencies are broken, which results in a continuous exchange of valuable ideas,
- fast dissemination of ideas and information between employees of various organizations and creation of *ad-hoc* teams in order to use them,
- common mental models motivating employees to systematic challenging of the adopted solutions and proposing new solutions.

Shaping trust becomes one of the superior tasks to be faced by organizations operating or planning cooperation in the network structures. Trust is the building material of social capital making it possible for the companies to enter into relations easier, exchange knowledge and run business. Therefore, it is desirable to shape relational capital by creating a culture of trust – generalized trust penetrating the whole community and treated as a valid rule of conduct³²⁴.

Anda Gheorghiu³²⁵

11. Efficiency – a key feature of the performance audit. The Romanian experience of auditing the medical waste management in public hospitals

11.1. Efficiency – a key feature of the performance audit

From Ancient times, people have tried to find ways to attempt maximum effects with a minimum of effort or waste, to express productivity by measurable, quantitatively determined ratios of output to input. The Latin

³²⁴ P. Sztompka, *Socjologia. Analiza społeczeństwa*, op. cit. p. 326.

³²⁵ Associate Professor, The National School of Political Science and Public Administration, Expozitiei Avenue 30 A, e-mail: anda.gheorghiu@facultateademangement.ro

word “*efficientia*” comes from “*efficere*” meaning to “accomplish”; the modern connotation of the word “efficiency” has grown to the sense of “productive of desired effects”, “productive without waste. The term “economic efficiency” refers to the use of resources so as to maximize the production of goods and services. Efficiency in business is frequently measured by financial indicators such as: Stock turnover, Debtors turnover, Current ratio, Debt/equity, Return on investment, Gross profit margin, Breakeven sales.

All these indicators are intended to increase the profit, a concept that cannot be used when talking about public funds. In this respect, the efficiency of using public funds is characterized as a maximization of results of an activity in relation to accessible public resources, it means a cost decrease without reducing effectiveness. Thus, efficiency is related to the optimal use of resources to generate an anticipated output. Efficiency is a difficult notion for public sector organizations, since it entails a certain standard of input and output which is seldom available in the public sector. Efficiency, in terms of audit standards, means the extent to which the objectives have been achieved and the relation between the expected impact (effect) and the actual effect of an action. Auditors should strive to estimate or quantify efficiency by comparing outputs (or results) to policy objectives. Results are at the heart of public management, which is why managing for outcomes, including setting realistic outcome expectations for programmes, and convincingly reporting on what was achieved are proving to be a complex task. Expressly in times of crises, public managers have to produce results in an economical way with the public money assigned to them.

Performance auditing is, according to the INTOSAI Auditing Standards, an independent assessment or examination of the extent to which an activity, programme or public institution operates efficiently and effectively, with due regard to the economy. The purpose of the performance auditing is to offer relevant information as far as the implementation and consequences of the public activities are concerned.

INTOSAI standards state that performance audit is an:

- a) audit of the economy of administrative activities in accordance with sound administrative principles and practices, and management policies;
- b) audit of the efficiency of using human, financial and other resources, including examining information systems, performance measures and monitoring arrangements, and procedures followed by audited entities for remedying identified deficiencies;
- c) audit of the effectiveness of performance in relation to the achievement of the objectives of the audited entity, and audit of the actual impact of activities compared with the intended impact.

Performance audit considers whether „public money was well spent“. It does this by examining how audited entities seek to achieve economy, efficiency and effectiveness (known as the „three Es“). Performance audit may also involve examining directly the performance achieved.

The efficiency represents the rapport between the obtained results and the resources used in order to obtain them. The efficiency can be expressed as the rapport between the results („outputs“) as goods, services and other results and resources („inputs“), used in order to produce them. $\text{Efficiency} = \frac{\text{Obtained results (output)}}{\text{Used resources (input)}}$. If the result of the rapport is equal or higher than „1“, the situation is favourable. An efficient activity maximizes the results obtained with the same quantity of resources or minimizes the resources of an established result. As a result, in carrying out the expenditures there will be taken into account the obtaining of maximal results and appropriate quality. In the case of the efficiency audit the main subject is the analysis of the resources used. Thus, the main problem is the optimal use of the resources or, in other words, if the results of the activity carried out, that complies with our expectations from a qualitative and quantitative point of view, could be obtained with lower resources.

Auditing efficiency means to assess whether human, financial, and other resources are efficiently used; government programmes, entities and activities efficiently managed, regulated, organised, executed, monitored and evaluated; activities in government entities are consistent with stipulated objectives and requirements; public services are of good quality, client-oriented and delivered on time; and the objectives of government programmes are reached cost effectively. In the case of efficiency, the question „are we getting the most output – in terms of quantity and quality – from our actions?“ refers to the relationship between the quality and quantity of goods and services provided and the cost of resources used in order to obtain them. The efficiency audit can also be performed through comparing certain similar activities carried out in different periods of time and by reporting to certain specific standards, and in case of complex problems when there are not standards, the analysis is carried out on the grounds of the best information and existing arguments.

Example 1: In a hospital, were analysed whether waiting time was reduced without an additional cost and without a diminution of the quality of services provided.

Example 2: In an audited entity there is verified whether the exploitation costs and spare parts costs were reduced while the number of professional vehicles increased and the security standards were observed during their operation. The concept of cost-effectiveness concerns the ability or potential of an audited entity, activity, programme or operation to achieve

certain outcomes at a reasonable cost. Cost-effectiveness analyses are studies of the relationship between project cost and outcomes, expressed as cost per unit of outcome achieved. Cost effectiveness is just one element in the overall examination of efficiency, which might also include analyses of, for example, the time in which outputs were delivered.

In some cases it may prove difficult to totally separate the two concepts – efficiency and economy – from each other. They may both directly or indirectly, concern whether, for instance, the audited entity: is following sound procurement practices; is acquiring the appropriate type, quality, and amount of resources at an appropriate cost; is properly maintaining its resources; is using the optimum amount of resources (staff, equipment and facilities) in producing or delivering the appropriate quantity and quality of goods or services on time; is complying with requirements of regulations that govern / affect the acquisition, maintenance and use of the entity's resources; and has established a system of management controls. Audits of economy focus on the first three points, while the concept of efficiency is mainly restricted to the question of whether the resources have been put to optimal or satisfactory use. Therefore, efficiency is mostly specified in two possible ways: whether the same output could have been achieved with fewer resources, or, in other words, if the same resources could have been used to achieve better results (in terms of quantity and quality of the output). The practice of reporting performance information is very diverse across different jurisdictions. In some countries, public sector entities are required by law to report performance information annually, while in others, this is voluntary and depends on the entities will to enhance accountability and inform decision makers.

11.2. Indicators for measuring the efficiency of the environmental management

Between 1950 and 2013 the world population increased exponentially from 2.5 B to 7 B, while environmental problems are enormous and increasing (climate change, air and water pollution, soil erosion and desertification, water scarcity and loss of biodiversity). Developing countries are severely affected, therefore public and private action is needed. The study of sustainable development has been of great interest for researchers and policy makers and it has been the subject of very complex debates worldwide, and they have conceived the concept of sustainable development, i.e. that kind of development “that meets the needs of the present without compromising the ability of future generations to meet their own needs - Source: Our Common Future, 1987, The Brundtland Commission (UN World Commission on Environment & Development).

One of the most widely used indicators for measuring sustainable development: the Environmental Performance Index developed by both Yale

and Columbia Universities, evaluates environmental sustainability relative to the paths of other countries, covering both environmental health and ecosystem vitality. According to the Environmental Performance Index 2012, based on 22 performance indicators in the following policy categories: environmental burden of disease, effects on human health and ecosystem effects of water and air pollution, biodiversity and habitat, forestry, fisheries, agriculture and climate change, results are even more concerning: Romania has a country rank of 88 out of 132 investigated countries, with a score of 48.34.

The key element of sustainable development is reconciliation between the development and the quality of the environment, promotion of integrated development and decision-making, both globally and regionally, nationally or locally. Also, sustainable development depends on the fair distribution of costs and benefits between generations and developing nations.

In the last four decades, humankind has tried to agree in a unitary way regarding the exploitation of natural resources. Thus, the most important moments were:

1972 UN Stockholm Conference

The United Nations Conference on the Human Environment was held in Stockholm, Sweden from June 5–16 in 1972. The meeting agreed upon a Declaration containing 26 principles concerning the environment and development; an Action Plan with 109 recommendations, and a Resolution. Principles of the Stockholm Declaration. Among them, one can remember: natural resources must be safeguarded, the Earth's capacity to produce renewable resources must be maintained, pollution must not exceed the environment's capacity to clean itself, damaging oceanic pollution must be prevented, development is needed to improve the environment.

1983 Brundtland Commission

The United Nations established the World Commission of Environment and Development (World Commission on Environment and Development) aimed at studying the dynamics and environmental damage and providing solutions for the long-term sustainability of human society. Brundtland Commission identified two major problems:

- Development not only means higher profits and higher standards of living for a small percentage of the population but to increase the living standards of all;
- Development should not involve destruction or reckless use of our natural resources or environmental pollution.

The key issue of sustainable development is the opposition between the needs of increasing population and limits of the planet's resources and the

continuous degradation of the environment.

The term sustainable development was coined in the paper *Our Common Future*, released by the Brundtland Commission. Sustainable development is the kind of development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

1992 Rio Conference. United Nations Conference on Environment and Development (UNCED)

A significant achievement of the summit was an agreement on the Climate Change Convention which in turn led to the Kyoto Protocol. An additional agreement was to "not to carry out any activities on the lands of indigenous peoples that would cause environmental degradation or that would be culturally inappropriate". The stated purpose of the Conference was to establish a new strategy for economic development the industrial and social world, summarized under sustainable development - "sustainable development. "The nations present agreed on a plan for sustainable development called.

Agenda 21 and the two sets of principles: the Rio Declaration on Environment and Development and Forest Principles. Agenda 21 focuses on community participation in the implementation of environmental policies on increasing the role of education in developing environmental awareness and responsible use of natural resources.

2015 Paris-United Nations Climate Change Conference

It was the 21st yearly session of the Conference of the Parties (COP) to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 11th session of the Meeting of the Parties to the 1997 Kyoto Protocol. The conference negotiated the Paris Agreement, a global agreement on the reduction of climate change. According to the organizing committee at the outset of the talks, the expected key result was an agreement to set a goal of limiting global warming to less than 2 degrees Celsius (°C) compared to pre-industrial levels. The agreement calls for zero net anthropogenic greenhouse gas emissions to be reached during the second half of the 21st century.

11.3. Environmental Indicators and EU Directives in the medical waste management domain

According to the Declaration of "Agenda 21" United Nations Conference on Environment and Development (Rio de Janeiro , 1992), it is necessary to develop indicators of sustainable development to provide a solid basis for decision-making at all levels and contribute to self-regulation embedded systems development and environmental sustainability. Specific environmental indicators that compose the system are grouped into several categories:

a) The way of expressing the indicators:

- absolute indicators (consumption of resources / energy, in kWh, the wastewater evacuated in m³, the amount of emissions (in kg or tonnes);
- relative indicators (specific emissions, emissions in kg / production unit, a specific pollutant concentration in surface water or sewage [mg / l]);
- share of total waste recycled per cent);
- weighted indicators, such as:
 - ✓ Environmental performance of an organization:

$$MPI\ PM = a + \beta \times \times \times ECI\ OPI + \gamma$$

Where: MPI - management performance indicators;

a - factor weighting MPI;

OPI - operational performance indicators;

β - weighting factor for OPI;

ECI - indicators of conditions (status, quality) environment;

γ - weighting factor for ECI.

- ✓ Affinity index coenotic;
- ✓ Aridity index;
- ✓ WHO index of water pollution.

b) The issue expressed by indicators:

- physical indicators (noise level limit of enclosures – dB, the number of vehicles fitted with catalysts - pieces, the amount of material used per unit of output – kg / unit or t / unit, the share of total consumption of natural gas -%);
- economic Indicators (investments for plants to reduce emissions of SO₂, investment for remediation at a power plant, expenditures for environmental protection unit, the share of total expenditure for environmental protection).

c) The scope and reference level indicators:

- indicators at process level (PEI - abbreviated name in English), such as monthly consumption of cooling water from a power plant condenser groups, open circuit hydro (kg);
- indicators at site / site / unit (UEI), for example the volume of wastewater evacuated, aggregated from all the technological processes at the site, where they & gt; (m³);
- indicators organization-wide (OEI): Total fuel consumption (GJ / year);
- indicators at the local level (MDL), among which: the total amount of municipal waste generated (T / year), the total electricity consumption for industrial purposes (MWh). Traffic private vehicles (no. of vehicles x km / capita).

The EU policies on waste management highlight the importance of an integrated approach to waste management, which includes the construction of installations waste disposal together with measures of waste prevention and recycling in accordance with the hierarchy of principles: prevention of waste production and the negative impact of its waste recovery through recycling, reuse and safe final disposal of waste, if there is no possibility to recover the waste

Thus by the Resolution no. 870/2013, the Romanian Ministry of Environment and Climate Change approved the National Waste Management Strategy for the period 2014-2020.

The National Waste Management Strategy aims to transform Romania into a "recycling society"-this refers to the collection, transport, treatment, recovery and disposal.

The medical waste categories are:

1. Non-hazardous waste (code 180 104) is waste whose composition is similar to household waste and has no major risk to human health and the environment; this waste is collected and discarded as household waste.

2. Hazardous waste resulting from medical activities, which constitutes a real risk to human health and the environment and that are generated during the health unit diagnostic activities, treatment, surveillance, disease prevention and rehabilitation, including medical research and manufacturing, testing, storage and distribution of medicines and biological products, which in turn are divided into four subcategories as follows:

- a) waste pathological and anatomical parts (code 180 102, 180 103 * 1): anatomical, biopsy material resulting from operating theatres for surgery and obstetrics (fetuses, placentas), anatomical results from laboratories autopsy animal corpses results following research and experimentation.
- b) infectious waste (code 180 103 * 2) i.e. waste containing or which came into contact with blood or other body fluids, as well as viruses, bacteria, parasites and / or toxins, microorganisms, syringes, needles, thread needles, catheters, infusion tubing, containers that contained blood or body fluids, field operators, gloves, probes and other disposable materials, compresses, bandages and other materials contaminated dialysis membranes, plastic bags for collecting urine lab materials used, etc;
- c) waste stinging-cutting (code 180 101, 180 103 * 3): waste that can cause mechanical damage by puncturing or cutting (needles, thread, catheters, syringes, needle cannula, scalpel blades disposable pipettes, glassware laboratory glassware or other broken or not, which come into contact with infectious material). These wastes are considered infectious according to universal precautions;

d) waste chemicals and pharmaceuticals (code 180 106, 180 107, 180 108 * 4 180 109)-vaccines exceeded shelf life, expired drugs, residues of chemotherapeutics, reagents and materials used in laboratories. Cleaning substances and disinfection damaged as a result of their improper storage or exceeded the shelf life will be considered waste chemicals, eg disinfectants, surfactants, etc;

3. radioactive waste (code 180 110 * 5 and others): solid waste, liquids and gases containing radioactive materials (ex. Sealed sources, spent radionuclide generators, solid low-level waste, paper, pads, glassware, syringes, vials, cargo residues of radioactive material used for therapeutic purposes). Chemicals and pharmaceutical waste (code 180 106, 180 107, 180 108 * 4 180 109) and ceaning substances, disinfectants, surfactants, etc.

The Directive no. 2000/76 / EC on Waste Incineration requires Member States to take all measures to ensure compliance with its requirements, including thermic treatment of the waste. The Directive aims at preventing and minimizing the negative effects of incineration and co-incineration of waste on the environment, in particular pollution by emissions into the air, soil, surface water and groundwater, and the risks they pose to health. These objectives must be achieved by imposing operating conditions and technical requirements, by setting emission limit values for incineration. Romania has requested a transitional period of three years, until 2010, time needed for the construction of incineration plants. Romania annually produces more than 10,000 tons of hazardous medical waste. As for the implementation of the EU acquis concerning the medical waste, it was agreed that all medical units have to close the small crematories and replace them with alternative management systems for hazardous medical waste.

11.4. Case study-the performance audit of the medical waste management in the Romanian public hospitals for the period 2012-2014

The national policy on waste management in Romania must be in line with the European policy objectives in terms of waste prevention; as a member state of the European Union, Romania must include among its priorities, alignment with the EU standards of environmental protection. This process involves great effort in harmonizing Romanian legislation with the acquis in this sector- known as waste Framework Directive, Directive 75/442 / EEC as amended by Directive 2006/12 / EC establishes a framework for waste management throughout the Community European, requiring, among other Member States:

- prioritizing waste prevention by encouraging reuse and recovery of waste;

- ensuring that waste is recovered or disposed without undermining human health and without using processes that could harm the environment;
- to ban uncontrolled waste disposal;
- establishing an integrated and adequate network of disposal installations;
- prepare waste management plans;
- ensuring that shipments of waste are recorded.

Therefore, in March 2016, the Romanian Court of Accounts published the performance audit report on the management of waste from medical activities of the Ministry of Health and subordinated units for the period 2012-2014. The report was intended for information to the Parliament of Romania, the Romanian Government, Ministry of Health and Ministry of Finance. In Romania, the Court of Accounts is defined as „The Supreme Institution of external financial control on the formation, administration and using of state and public financial resources (art.1. of Law on organisation and functioning of the Court of Account no.94/1992, republished, modified and completed by Law no.77/2002).

The purpose of the report was to assess activities, in order to increase efficiency of the medical service in future years, to enforce the law regarding the waste resulting from medical activities. These aims can be achieved by providing human resources, trained in management of waste arising from medical activities, by correct monitoring and reporting data and information by equipping public hospitals with facilities for hazardous medical waste neutralization.

Another aim of the report was to implement the right steps for reducing hazardous waste disposal, and reduce the costs related to the management of waste from medical activities carried out in public hospitals (low cost of operation and maintenance).

The finality audit implies the possibility of submitting the results by making them available to decision makers' legislative and executive form of conclusions and recommendations on appropriate measures to be taken to address any shortcomings and deficiencies and increase efficiency in waste management results from medical activities.

The Ministry of Health has not complied with the national legislation relating to waste management, by neglecting to approve the National Strategy and the National Plan of waste resulting from medical activities. In the period 2012-2014, there necessary financial resources for the management of waste arising from medical units was not evaluated according to the real needs to dispose the medical waste and to train the personnel involved in this activity.

In Romania, in 2002 there were a total of 346 crematoria placed within health units, of which a total of 31 plants were in Bucharest. Their closure was

achieved gradually, in the first stage very small crematoria were closed and the waste generated was transferred to those remaining in operation. Although half of the crematoria were closed by 2007, the remainder to be closed by the end of 2008, Romania asked for an extension until 2009. The closing timetable stretched over 4 years, as follows: 52 plants in 2004, 70 installations in 2005, 114 installations in 2006, 52 plants in 2007 and 58 in 2008.

The old crematoria were not authorized anymore to destroy the medical waste their work being taken over by authorized modern incinerators. Therefore, the activity of the dismantled 346 crematoria is replaced by companies authorized for disposal by incineration. The Government decided to close incinerators, but did not allocated funds for building new ones.

Therefore, it opened up the prospect for private companies to activities such as sterilization, transport of waste, according to European rules. According to regulations on environmental protection, health institutions can be fined if they do not burn the waste in an environmentally friendly incinerator. The work of the dismantled 346 incinerators was complemented by operators holding combustion plants, authorized in Romania. The countries were divided into regions, each company adjudicating one region of the medical waste market.

In order to implement the obligations that Romania has assumed, EU allocated from the Environmental Fund the sum of 34 million lei (approx. 7,5 million euro) in the form of grants, reimbursable or combined for the construction of incinerators and sterilisers. The beneficiaries of this project were supposed to be more than 8 operators. By implementing the project, it was intended to achieve the capacity of incineration and sterilization for a quantity of 63,000 tonnes for the elimination of hazardous industrial and medical waste generated annually in the country, respectively and for reducing pollution through the implementation of incineration plants with low emission.

The funds could have been accessed by operators, large enterprises and small and medium legal entities that met the following requirements: to build an incinerator, burn at a certain temperature of incineration capacity exceeding 10,000 tons/year, in bicameral burners, the combustion temperature in the secondary chamber should have been greater than 1,100 degrees C, incinerators must be equipped with heat recovery and revaluation of energy, be fitted with filters and treatment systems for emissions of gas.

The Ministry of Health purchased in 2005, a total of 67 medical waste disinfection systems MEDISTER 160 type. The MEDISTER 160 system is used for disinfection of infectious waste and those containing liquid infectious waste, microbiological laboratory waste, dialysis systems, waste from wards, etc. The

Part 2. EFFECTIVE MANAGEMENT IN ORGANIZATION

devices are operated via an integrated touch panel. Each disinfection cycle operates fully automatically. Moreover, cycle data are stored electronically and can be easily read using a USB or an Ethernet connection.

These facilities were acquired in 2005 with credits guaranteed by the Ministry of Finance for the Ministry of Health, totalling \$ 8,017,488 (67 plants x \$ 119.664 / installation).

7 public hospitals subordinated to the Ministry of Health that have in their patrimonies Medister 160 systems are the following:

- 1) Spitalul Universitar de Urgență București (Emergency hospital)
- 2) Institutul Oncologic "Prof. dr. Al. Trestioreanu" București (Oncologic institute)
- 3) Institutul Clinic de Urologie și Transplant Renal Cluj (Urology and Kidney transplantation)
- 4) Institutul Oncologic "Prof. Dr. I. Chiricuță" Cluj (Oncologic institute)
- 5) Spitalul Clinic Județean de Urgență Timișoara (Emergency hospital)
- 6) Spitalul Județean de Urgență "Sf. Pantelimon" Focșani (Emergency hospital)
- 7) Spitalul Clinic Județean de Urgență Târgu Mureș (Emergency hospital).

In most health units the equipment never functioned, but there is, hopefully, a good example-Clinical Emergency County Hospital Targu Mures. It used treatment plant type MEDISTER 160 and submitted the statements on the quantities of medical waste treated with their own installation and operation and maintenance costs of the plant during 2012-2014.

By analyzing the statements submitted by County Hospital Emergency Targu Mures, it was revealed that in the period 2012-2014, the quantities of medical waste treated by the plant's own equipment were 8460 kilograms in 2012, 8880 kg in 2013 and that 8700 kg 2014.

Table 11.1

The quantity of waste treated with its own equipment and annual costs generated by using and maintaining the equipment in the Clinical Emergency County Hospital Targu Mures, in the period 2012-2014

Years	Quantity of Waste (kg) treated with Medister 160 equipment	Annual costs for using and maintaining the equipment (lei-Romanian currency)	Cost/kg of waste (lei-Romanian currency/kg)
0	1	2	3=2/1
2012	8,460	30,880	3,65
2013	8,880	30,950	3,48
2014	8,700	30,975	3,56

Source: Court of Accounts of Romania.

The annual costs arising from the use and maintenance of plant type MEDISTER 160 were in the amount of 30.880 lei in 2012, RON 30 950 respectively in 2013 and 30.975 lei in 2014. So, for one kg of treated waste using its own facility, Clinical Emergency County Hospital Targu Mures spent 3.65 lei / kg in 2012, 3.48 lei / kg respectively in 2013 and 3.56 lei / kg in 2014, as shown in the table below.

If all health units had used facilities type 160 MEDISTER, savings would have been achieved compared to the costs of the private companies. In the following example, we illustrate the savings that could have been achieved in the period 2012-2014 by "Prof. dr. Al. Trestioreanu" hospital in Bucharest. This hospital did not use MEDISTER 160 installations. We will take into account as cost of reference-the cost / kg waste produced by the Clinical Emergency County Hospital Targu Mures in 2012 (3.65 euro/kg waste treated). For a quantity of 60,347 kg of waste, "Prof. dr. Al. Trestioreanu" Bucharest has paid a unit price of 5.45 lei / kg of waste to a private company. If we compare it with the reference cost of 3.65 euro / kg that would have been obtained if it had used its own equipment, it results that the savings obtained would have been worth approx. 108.624 lei.

In conclusion, the lack of a National Strategy of the medical waste led to the loss of funding from European funds of EUR 17,331,994 (approx. 77,683,730 lei). With this amount, the Health Ministry would have been able to acquire for example, about 174 NEWSTER10 neutralization systems, taking into consideration the unit price of 99.439 EUR / installation. If all health units would have treated the quantities of waste, with the facilities provided by the state, they would have achieved during 2012-2014 estimated savings of 1,853,946 lei (approx. 413.633 euro). With this amount, the state would have been able to acquire a number of 4 new plants NEWSTER10 neutralizing type, taking into account the rate of 4.4821 lei / euro in force on 31.12.2014 and the unit price of euro 99.439 of such installations.

11.5. Conclusions

The paper underlined what role performance audit plays as a tool to implement a sound financial management of the European Commission and the programmes funded through the EU budget. Generally, performance audit is a new function of the management, helping stakeholders to take the right decisions on an objective basis; it works as a tool to implement a sound financial management of the organizations, it is a useful tool that grants information and feedback for organization development. Implementing the performance audit of public funds is a matter of respect for tax payers and

should be extensively introduced in all the institutions on public budget.

The case study on the performance audit of the medical waste management in Romanian public hospitals, shows that in Romania in the period 2012-2014, the management of the medical waste was poor. The reasons for this were multiple:

- Lack of a National Strategy and management of the medical waste;
- Insufficient entities endowed with waste treatment equipment resulting from medical activities;
- the Ministry of Health did not properly coordinate and monitored the medical waste management activities and the financial resources were not in accord with the actual needs required.

For countries like Poland or Romania, which have experienced a transitional period from a central-planned economy to a market based economy, relaunching an appropriate auditing practice has been an essential step towards better public management.

In future years, developing the institutional framework, and boosting the role of performance audit is a key for progress, transparency of public expenditure, bettering the perception over the macroeconomic environment and consolidating democratic values.

Konsta Karppinen, Katja Kataja³²⁶

Taru Tallgren, Tero Uusitalo³²⁷

12. Fostering Business with Efficient Project Management

12.1. Introduction

With the modern work culture and society being as dynamic as they are, the importance of good management must be emphasized. With time, money and human resources being limited in some ways, modern organizations have taken up projects. Projects are a good way to outsource a single task or assignment that must be done in a certain time using given resources. Most might say projects are mostly beneficial to an organization, but to manage a project is a whole different entity³²⁸.

³²⁶ Business Management Student, Laurea University of Applied Sciences.

³²⁷ Senior Lecturer, Laurea University of Applied Sciences.

³²⁸ K. Ruuska, *Pidä projekti hallinnassa*, Talentum, Helsinki 2008, p. 12-13.

In Finland in 2013, 800 000 people were, in one way or another, involved with projects in their current working environment³²⁹. The number is exceptionally high when compared to the Finnish population of approximately 5,5 million people³³⁰. Working on projects is a fairly simple and efficient way to achieve great results but they can't be done everywhere. A strict and functional organization structure doesn't fit into a dynamic and complex atmosphere without drastic changes. Noticing the need for change requires active data acquisition and to react quickly to the changes one must have good decision-making skills. Practically these changes in working culture lead to changing the work into projects³³¹.

The objectives of this research were to ascertain what general features, as well as project management characteristics guarantee an efficient and successful project. This research was part of the business management studies of students Katja Kataja and Konsta Karppinen at Laurea University of Applied Sciences. Also Senior Lecturers of Business Management Taru Tallgren and Tero Uusitalo participated in the research process and provided guidance for it.

12.2. Project management and stages

The theoretical part of this study describes project management and project stages, which are essential in project implementation. Despite the fact that the word "project" has many different interpretations these days and has become a kind of a fashion word it only serves a single purpose in the working industry. A project is always assigned by a person or organization, it always has a clear goal and bar none has limited resources³³². A project is not always operated by a single organization itself: they appoint a project manager to be in charge of the process and usually give them the mandates to single-handedly gather a group of specialists to cover the variety of expertise required in the project. A project can also be completely outsourced to a completely different company depending on the line of industry³³³.

As stated by Kerzner (2013), a project is an accurately defined working process that usually has a clear vision of the final outcome and the time, money, human resources and other resources. A project manager should be

³²⁹ Finnish Institute of Occupational Health: *Rajoja rikkova työ*, http://www.ttl.fi/fi/verkkokirjat/Documents/Rajoja_rikkova_työ_loppuraportti_pdf.pdf [3.3.2016]

³³⁰ Finnish Population Register Centre.

(<http://www.vaestorekisterikeskus.fi/default.aspx?docid=169>).

³³¹ K. Ruuska, *Pidä projekti hallinnassa*, Talentum, Helsinki 2008, p. 11.

³³² H.R. Kerzner, *Project management: A Systems Approach to Planning, Sceduling, and Controlling*, John Wiley and Sons, Hoboken, New Jersey.

³³³ K. Ruuska, *Pidä projekti hallinnassa*, Talentum, Helsinki 2008, p. 21.

able to acknowledge his team's strengths and weaknesses while motivating them to keep their eyes on the goal. There is also a kind of a brand approach to the project when it comes to the project manager. Being the main communicator in a project, it is usually the project manager who is the actual face of the project. Ultimately it is up to them how the project goes and how the project looks outside. With a detailed plan that can adapt to possible changes and risks dynamically, actively communicating with the project's interested parties, reaching the milestones and remembering to celebrate it to motivate the team any project should be on a solid platform. A project that is in good progress also looks good to the client³³⁴.

Depending on the circumstances a project initially starts from an idea, a proposition or an assignment. Its actual implementation is started at the planning stage (Figure 12.1). The resources available for use in the project (such as time, money and personnel) are charted at the planning stage. At the execution stage the project proceeds along the planned schedule. The use of resources must also be monitored simultaneously. It is usually the project manager's duty to keep project partners posted on the project's progress and ask the support group for advice on demand. A project should also have a clear ending. The project organization will put together a final report that states the project's results, findings and all the documentation in it. The basic organization and operative board also assess the project's success. If there are no strict boundaries to a project it will eventually turn into maintenance with no clear goals³³⁵. Only after the results have been delivered to the client, be it a third party or the basic organization, and reaching satisfactory goals can a project be finished³³⁶.

During the execution stage it must be clear for every project organization member what their stake and role are in the project. On the other hand, the project manager must make sure that the project is going according to the initial plan and that it can adapt to possible changes. Good planning is the basis of management and monitoring: if there is no initial plan to follow it becomes very difficult for a project manager to evaluate how the project stays in control³³⁷. Every project should have certain milestones and smaller goals (figure 13.1). Dividing a bigger project into smaller stages and partial results eventually makes it easier to reach the final goal. Reaching the milestones also helps keep to the personnel motivated and active. Over many years it has been

³³⁴ J. Carrol, *Effective Project Management*, p. 13.

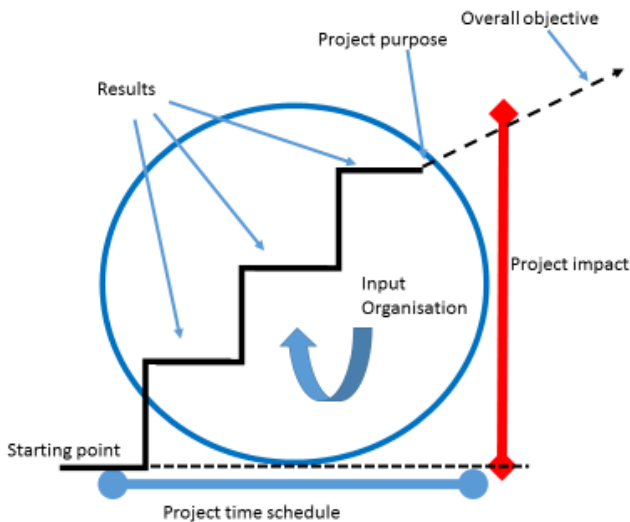
³³⁵ R. Pelin, *Projektinhallinnan käsikirja*, Projektijohtaminen Oy, Jyväskylä 2008, p. 356.

³³⁶ K. Ruuska, *Pidä projekti hallinnassa*, Talentum, Helsinki 2008, p. 265

³³⁷ G.T. Haugan, *Project Managements Fundamentals – Key Concepts and Methodology*, Management Concepts, Inc, Vienna, Virginia 2011, p. 127.

considered that a project manager should have certain important attributes. These attributes include flexibility, leadership and an ability to be systematic. Additionally, the project manager's ability to get along with different people in different circumstances is often emphasized³³⁸.

Figure 12.1
Project concept



Source: P. Silfverberg, *Projektityön käsikirja*, Edita Prima Oy, Helsinki 2007, p. 23.

Communication is an inevitable thing when it comes to having a successful project. Project communication consists of internal and external communication. The communication that takes place within the project organization is often referred to as internal communication whereas external communication happens between the project organization and other interested parties such as the client and the support group. The management approach to communications is that it must be clear. It is the project manager's job to make sure everyone has the same perception of the message because people interpret different messages in different ways. Therefore it is important that everyone has the same final interpretation of a message³³⁹.

The project manager is generally seen as the main informant in a project. Widely seen as the number one issue in projects, communication plays one of the biggest roles in successful projects. A good project manager

³³⁸ J. Taylor, *Survival Guide for Project Managers*, In Easy Steps Limited, Warwickshire, UK 2012, p. 16.

³³⁹ G.T. Haugan, *Project Managements...*, op. cit., p. 236.

does not only keep the client posted on the project's progress but also makes sure that everyone in the project team have the same knowledge as them. Even though the information flow itself might not be useful to the project team, having a good view of the overall project increases working motivation³⁴⁰.

An insufficient project plan can lead to disturbances in communication. The initial plan for communicating could be to only use e-mails. But if it fails and there is no plan B there are no means of interacting with others in the projects. So in the next project there will be a backup plan for communications if something were to go wrong. Assessing the successfulness of a project doesn't happen only by seeing the results but also by looking back to the project plan and if the project was successful given the resources and circumstances. It might be noticed afterwards that the financial budget was too small or that more human resources would have been of use. Things like this are then listed as *development suggestions*³⁴¹.

As stated earlier³⁴², a standard successful project should have a clear ending (Figure 12.1). Ending a project is mostly about making sure the final product is ready to be delivered to the client and gathering all the documentation throughout the whole project into one totality, a final report. The final report is important for two reasons: first, a good final report gives all interested parties an inclusive view on what kind of things were done to reach the final goal. Second, projects are processes of continual learning. Even after the project is successfully finished it is vital to look back and see all the mistakes and the good things that were done^{343 344}.

12.3. Research and results

The research was executed as a theme interview study which took place from February 1st, 2016 to February 19th, 2016. The interviews consisted of five main themes which were: *the interviewees' backgrounds, visions on the project way of working, the meaning of project management, the importance of project communication and assessing a project's results & successfulness*.

The average length of the interviews was approximately 45 minutes. Altogether ten people took part in the interviews, seven of which met face-to-face, two completed a phone interview and one was contacted via Skype. There were two interviewers each time, one of whom played the role of the

³⁴⁰ R. Pelin, *Projektinhallinnan...*, op. cit., p. 286.

³⁴¹ Ibidem, p. 268.

³⁴² H.R. Kerzner, *Project...*, op. cit.

³⁴³ G. T. Haugan, *Project Managements...*, op. cit., p. 158.

³⁴⁴ K. Ruuska, *Pidä projekti...*, op. cit., p. 266.

actual interviewer while the other one wrote down everything that was said during the interview. Additionally every interview was audio-recorded. The interview results were analyzed so that the interview recordings were transcribed and themed using the notes written during the interviews.

Ten people with a strong knowledge of working on projects were chosen as the target group for the research. Additionally everyone in the target group had had several years of experience in different types of project-based organizations. The target group individuals represented the following lines of business and management: industrial and architectural engineering (4 people), project coordinating (1), project management organization board (1), mentoring and coaching (1), retail (1), accounting (1) and advertising (1). A majority of the interviewed people had worked primarily as a project manager. Nonetheless they also had had experience in other project organization roles. The projects that the interviewees had worked on varied in length, from two-three months up to three years. Additionally some had worked on very large projects' subprojects.

The main aim of the results was to discover which elements make a project easily manageable, what skills and qualities are needed of a project manager (PM) and if the aforementioned have any fostering effect on an organization's business. The main topics that came up in the interviews were *critical factors of a project, the role of communication in a project, the general role of a project manager and the effect of those on the successfulness of a project*. The interviewees listed things like time as a resource and finishing a project as the most critical factors in a project whose success culminated in the functional communication and the PM's ability to cope with change. Under the theme of project communication the interviewees told about the channels of communication they had used and the common failures specifically in project communication. The end of this chapter will deal with the totality formed by all of these factors and especially its impact on an organization's business.

12.4. Critical factors in a project

The interviewees were asked what they thought were critical factors in a project. In the interview sheet this topic came up last chronologically but the answers to this theme were actually revealed earlier in the interview. Seven interviewees out of ten mentioned that communication is always at the core of a successful project. As a conclusion, insufficient project communication equals an insufficient project. The theme of communication will be discussed more accurately later in the article. Other common factors that the interviewees thought that were critical were scheduling, controlling expenses, project quality, the PM's suitability to a certain project and the ability to manage

change. All of these factors highly affect the outcome of the project.

The interviewees considered “time” to be the most important project resource. Time as a resource meant the project organization’s personnel’s working hours. It was basically the companies’ main resource. The scheduling of a project should already be taken into account at the planning stage. It should be realistic but also dynamic enough to adapt to possible changes. Otherwise there might occur e.g. overtime expenses that might eventually have a negative impact on the project and thus on the company’s profit.

One thing that was also generally thought as a substantial factor for a project to be successful was that the project organization must work towards the goal and it must have a clear ending point. Without it the project lingers on and consumes resources that would be important to some other project. From this it can be gathered that the target of a project should be clear for everyone involved in a project all the way from the planning stage. If any kind of alterations occur in a project it is the project manager’s duty to make sure that the project adapts to the changes and carries on as planned.

*A part of the big picture is to also observe how much profit is desired from a project.
A project is not a project without a schedule, a plan and a budget.
When the goal is realistic the required results will be reached.*

12.5. Project communication & documentation

It is the project manager’s responsibility to keep the members of the project organization and interested parties posted on the project’s current situation. To observe the changes and inform everyone he must be a strong and determined communicator with a clear vision of what’s to come.

The interviewees all agreed that the PM is the main person in project communication. Most of them thought that the rules of project communication must be defined clearly for everyone involved in a project so that everyone knows for certain their role in the communication frame. For this some of the interviewees’ organizations had composed specific communication plans. Even though the PM has to be aware of all vital information it doesn’t alter the fact that the other members of project organization have to be able to communicate with themselves independently. The information concerning the project should not only be focused on those responsible for it but must be shared in case the people in charge of certain information are not available. It is the PM’s task to encourage and motivate the project organization to practice enough active communication. Finally, it is also the PM who decides the channels of communication to use in a project and make sure everybody does.

The interviewees were asked to evaluate the role of communication in

a project. They evaluated that the time spent purely on communication was on average 56%, more than half of a project. According to the results the role of a PM has a lot more communication than any other part. When talking about communication the interviewees had a mutual opinion about face-to-face still remaining the strongest way of all communication (8). That was because in face-to-face situations it is much easier to observe situations where someone doesn't understand everything he should and to ask specific questions immediately. This way it becomes simpler to notice and avoid the situations where people don't know the information they are required to. It turned out in many interviews that the project communication is not always active enough which leads to people making assumptions and believing they are aware of essential information. Things like this are often revealed especially in face-to-face situations.

The project atmosphere must be so easygoing that people aren't afraid to ask "stupid" questions.

When communicating face-to-face you can easily tell by the look on someone's face if they didn't understand what they just heard.

Unofficial face-to-face communicating is also important: a lot of important things might not come up until at the coffee table.

E-mails, for example, could be perceived as a good and a much used tool to exchange information the interviewees thought that an e-mail is too ambiguous. In fact, one of the interviewees stated that communication is only 20 percent words, the rest is body language. This portion of 80 percent is completely omitted in written messages. Therefore it is challenging to make an e-mail easily understandable for everyone. This is emphasized especially in international projects. People from different cultures tend to have different reactions and interpretations on different messages. It can be difficult for the receiver of the message to interpret the tone of the message contents. It is impossible for the sender to know if the receiver actually receives the message, not to mention that if he actually assimilates the information in it. E-mail is nowadays so commonly used that the interviewees experienced it as a bad channel to forward acute information because the amount of e-mail is usually out of control.

I hate the "reply to all" button in e-mails.

The message receiver has to understand if it concerns him and who it must be forwarded to.

Some people just have to be e-mailed because you can't reach them by calling.

Accordingly you just have to call some people because they don't check their mail.

As stated earlier, it is good to have active communication in a project but this does not guarantee that the information is always of good quality. The importance of quality to the interviewees was that the correct information is forwarded to the right people at the right time. This is easiest to execute in direct contact e.g. Skype, Lync, Adobe Connect and FaceTime. Therefore the interviewees favoured these kind of applications increasingly. Traditional phone conversations were also considered advantageous especially in situations where someone had to be reached as soon as possible. The aforementioned online services were often used to have scheduled meetings so people could mentally prepare for the upcoming meeting and be ready to take notes of the topics discussed. On the contrary, phone conversations can often happen at a time when one is in the middle of something else. Thus a person might not be completely focused on the phone call, even though it may be an important one. Additionally unpremeditated phone conversations like this can't often be turned into memos.

After a phone call it would be beneficial to make a memo and send it to the person you were talking with so that the information does not get forgotten completely. Personnel often have the tendency to assume things they don't know for certain.

The interviewees also emphasized the importance of systematic documentation throughout the interviews. The documentation must contain the correct information so that anyone who reads it understands it. The basic problem is, both in communication and documentation, that people underestimate the urgency or importance of a certain piece of information. It is often thought that someone is already aware something or that it doesn't concern them in any way. This creates situations in which the project organization members might do pointless work that starts taking the project in a wrong direction or wastes valuable resources. Deficient documentation makes it more difficult for the PM to observe how the project changes and to manage the changes. As stated earlier, it is the PM's task to decide which channels of communication are used in a project but must also make sure that the required documentation and thus the information are shared via designated channels. A majority of the interviewees admitted the lack of a project management programme to share the documentation within the project organization. The information is usually scattered all over which eventually reflects on the organization's capability of walking through a finished project stage by stage and noticing the possible mistakes made.

The PM should have proper training in project working, communication and management because it helps to perceive what elements are required for the project to be successful. For the majority of the

interviewees the project expertise had developed increasingly throughout their careers, partly because project work started becoming more popular only in the early 2000's³⁴⁵.

*A company should offer as much project management training as possible. Knowledge of the industry alone is not enough. A project manager also needs the ability to lead.
Not everyone can be a project manager.*

12.6. Project organizing, management and monitoring

The interviewees were asked what they think is the importance of leadership in a project. As already mentioned, they thought that there are several critical factors in a project that can cause the project to fail. Most of them stated that these things are without exceptions in the hands of the project manager. Therefore a conclusion can be made that the PM is the key person a successful project. It means that his ability to lead a project also has an effect on the business outcome.

*If the PM doesn't lead a project properly the energy and the direction will disappear completely.
The project manager is the person who has to be able to observe the whole project's advancements.
Noticing the need for change and actually making changes are the leader's responsibility.*

Then what actually makes a good project manager? The interviewees' visions were naturally quite different but some things generally rose above others. To start with, they all thought that having a good general project competence plays a big part in some fields – but it's only a fraction of what is required for someone to be a good PM. Additionally a PM must e.g. be reliable, be able to motivate his team, encourage the project organization into open communication and be systematic. He must be able to observe the big picture and communicate with his team about the project's goals and direction. But the interviewees' opinion was clear: a PM must have the ability to control and manage change. They thought that a project could simply not be finished without it. The technical industry emphasized substantial competence, even though that alone is not enough for a PM. The interviewees thought that the PM also plays an important role in creating an easygoing project atmosphere.

³⁴⁵ R. Pelin, *Projektinhallinnan...*, op. cit., p. 91.

It is part of a project manager's job to be able to give feedback, positive, or even negative, if it exists also.

A project manager must be able to create an atmosphere where people aren't afraid to speak up and ask about things.

It was mentioned by some interviewees that the PM should have proper training relating to project working and management because it helps to perceive what elements are required for the project to be successful. For the majority of the interviewees the project expertise had developed increasingly throughout their careers, partly because project work started to become more popular later on in the 21st century. Perhaps it is because of this fact that not so many people have actual project manager education. It also makes project working harder because the client usually neither has clear knowledge of what a project is. A conclusion can be made that the PM has to have enough project knowledge to produce a comprehensive plan which enables reaching the client's target. Project knowledge and project management skills should be emphasized in modern education and workplace training simply because those skills are seriously needed in working life, now and in the future. Who knows if the working cultures all over the world will rely on efficient project management in the coming years.

A company should offer as much project management training as possible.

Knowledge of the industry alone is not enough. A project manager also needs the ability to lead.

Not everyone can be a project manager.

The ability to delegate was also thought to be important because it is not the PM's task to do everything, but to control everything and finish the project successfully. It came up with two interviewees that when there are e.g. subcontractor's employees in the team, it is unclear how much the PM is entitled to manage their work in the project. Thus it would be advisable to make sure in the beginning that the PM is in a justified position to control all of the project resources.

One of the interviewees specifically emphasized that empowering your project team is part of modern leadership. Every interviewee thought that the project team must be given responsibilities. What they wanted the most was that the project manager shares certain duties. In the same context it was emphasized that the authorization should be clear so that everyone knows exactly their own area and its importance in the big picture. Also some of the interviewees commented that when duties are being divided everyone becomes responsible for their own work. From the PM's point of view it means that he mustn't interfere with the work but let them do what they do. From here a conclusion

can be drawn that sharing duties requires mutual trust. Though empowering the team does not remove the PM's own responsibility to monitor the progress.

If the PM does everything by himself why should there be able and expensive employees in the team?

You have to trust others and let them do what they know how to do.

The PM intervenes at a time of crisis.

12.7. Benefits of a well-managed project

It has been stated that the PM has to constantly take care that the project runs towards the ending point all the time. Succeeding in a project requires reaching the targets initially set for the project. A project's fundamental importance to fostering business is always to succeed, the project won't even be started if it doesn't have a clear beneficial goal. It helps the observation of the project's continuum to have a strict completion point that is set at the planning stage of the project. Many interviewees stated that it is important to have milestones in a project. A conclusion can be drawn that the project must be phased at an early stage with milestones to help keep track of the project. When coming closer to the project deadline it is easy through milestones to observe if the project is still on the right track. A realistic plan combined with an ability to manage changes directs the project to the conclusion.

In the interviewees' opinion a successful project was one where all the goals set were fulfilled. In addition to the project organization itself the project could have had a client with its own goals. These goals might have been different to each other but a conclusion can be drawn, that both of them have to be monitored and the project's total success and quality is measured by how both of these goals are fulfilled. For example, in the industrial business the interviewees' clients ordered a specific product that had to be manufactured from the start. The client's evaluation of the product was based on whether it was that they ordered or if it wasn't. In these cases the project's assessment was based solely on the product's quality and time of delivery. On the other hand, the project organization had their own goal, such as a certain amount of profit. Then the project's successfulness was evaluated within the organization based on whether the project was able to be managed and completed so that the project brought in the desired amount of economical benefit. In some cases the profit could have been e.g. new clients or new future projects.

If a client is happy with the results they will come back in the future.

Some projects are so significant they can't simply afford to fail.

Succeeding produces more success.

All of the interviewees said that when ending a project some kind of a final revision must always be done. The purpose of this is to detect the elements that led to success and in turn failure. Every interviewee stated that repeating mistakes should always be avoided but many of them also said that they don't possess any systematic ways to forward the knowledge learned. Thus the final revision should be executed so that at least the members of the project team would learn the necessary things. Altogether a mutual problem among all interviewees was that they all had experienced difficulties in delivering important knowledge forward into the next projects. In one interviewee's organization they tried to solve the problem so that the project organization never changed entirely; one or more people always continued with the same kind of projects.

12.8. Summary

In summary, the most critical factors in efficient project management are the PM's competence, communication's quality and management, the ability to manage changes and resources, monitoring a project, forwarding the learning outcome, scheduling and conducting it all the way to the ending point. If a project doesn't stay in the PM's control it usually ends up failing or not being completed which means direct damage to the organization's business and profit, image and the common working atmosphere. Taking a project to the finish does not mean a successful project but ending a project is essential so that it doesn't require any more resources or interfere with any other projects. One of the most important skills of a PM is the ability to observe and manage change. To do that, the PM must be aware of everything that happens in a project which calls for good communication skills. The PM must communicate actively and encourage others to do so as well. Being a good PM requires competence, certain characteristics and education.

To implement the new projects successfully the organization must be able to learn from earlier projects. When the errors, as well as the positives are observed it becomes possible to adopt all the better methods. Because the PM is mainly responsible for all of this to happen it can be stated that a good project manager brings profit to the organization.

Agnieszka Przesmycka³⁴⁶, Marian Podstawka³⁴⁷

13. Investment project profitability analysis on the example of an investment in a biogas power plant

Introduction

Investments are referred to as the *sine qua non* of gaining additional resources in the economy. In order to effectively stimulate structural changes in the economy, they need to be effective themselves³⁴⁸.

Investments are necessary in order to create conditions to carry out or to develop business activity. It is investing suitable capital, which may be used on a long-term basis, in tangible property that gives the entity the edge on the market. Such decisions have an enormous impact on the company in the long run, since they generally entail freezing considerable financial resources for a prolonged period. Therefore it is crucial to carry out a detailed analysis of the investment's profitability prior to taking the investment decision. And although it can never guarantee 100% certainty of the project's success, it allows the investor to identify potential risk and to foresee possible difficulties³⁴⁹.

13.1. Tools of the assessment of investment project effectiveness

13.1.1 Determining the discount rate

Determining the correct discount rate is the analysts' most difficult task. The rate is mainly contingent on the political situation in the world, the economic situation both at home and abroad, the development trends on the financial and capital markets as well as the policy of the country's financial authorities. The relations between an economic actor and other enterprises at home and abroad are another vital factor influencing the NPV.

An unduly low discount rate diminishes the company's NPV, and an

³⁴⁶ MA, Zakład Elektrotechniczny ZELTECH Stanisław Przesmycki (Electrotechnical Plant ZELTECH Stanisław Przesmycki), Siedlce, e-mail: przesmycka.agnieszka@gmail.com

³⁴⁷ Prof. dr hab., Warsaw University of Life Sciences (SGGW), e-mail: marian_podstawka@sggw.pl

³⁴⁸ W. Rogowski, Rachunek efektywności inwestycji. Wyzwania teorii i potrzeby praktyki, Warszawa 2013, p. 21.

³⁴⁹ W. Bień, Zarządzanie finansami przedsiębiorstwa, Warszawa 2011, p. 259.

overly high one increases the value excessively. Thus a correct forecast of its worth is the foundation of a precise NPV assessment of a business applying for a bank loan³⁵⁰.

13.2.2 Discounted payback period (DPP)

As opposed to the simple payback period approach, the discounted payback period method uses the net cash flow rather than the profit on an accrual basis to measure the net benefit. In addition, this method takes into account the time value of money. Its essential purpose is to estimate the period necessary for the present value of the outlays on investment tasks in the case of a particular investment to be entirely covered from the current, discounted positive net benefit which will be generated by the investment.³⁵¹

The general form of the discounted payback period method may be shown on the following algorithm:

$$PVI = \sum_{t=m+1}^{OZ} \frac{NCF_t^{"+}}{(1+k)^t}$$

where:

NCF_t^{“+”} – is the cumulative value of the present positive net cash flows,

PVI – is the present value of capital expenditure.

PVI in the algorithm indicates the present value of the capital expenditure, with the net benefit measured on the basis of positive cash flows. Both these values are discounted.

The financial interpretation of the discounted payback period informs us of the period (number of years) required to recoup the funds expended in an investment from the net benefit generated by this investment.

Thus the tool allows us to estimate an investment's ability to recoup expenditure on a given task. It is therefore a specific assessment of an investment task's liquidity. The payback period may therefore be defined as the time required to fully recover the expenditure (negative net cash flows) on a given investment from the net financial surplus gained on the investment. This surplus must be generated in the project's financial result on the operational level. The payback period defined in this manner is the shortest possible period after which the investment will begin to pay for itself.

³⁵⁰ Discounting http://kredyty-inwestycyjne.eprace.edu.pl/471, Metody_oceny_efektywnosci_przedswiezec_inwestycyjnych.html (date of access: 01.06.2014).

³⁵¹ W. Rogowski, Rachunek..., op. cit., p. 394.

Afterwards, the sum of the discounted net cash flows in the successive investment periods will have a positive value.

Certainly, this method does not allow the entrepreneur to develop an objective decision-making criterion. The discounted payback period may be but an object of comparisons in relation to the boundary value.

The decision-making criterion for this indicator may be developed as follows:

$$OZ < n_{gr}$$

$$OZ = n_{gr}$$

$$OZ > n_{gr}$$

In this case it necessary to determine the value of n_{gr} , that is the longest acceptable period for the return on capital employed. This border value is very often determined intuitively by the decision-maker or the person financing the project.

Just as any other method, this one also has its pros and cons. The advantages are, among others, that it is based on net cash flows and takes into account the time value of money. From the accounting point of view, the method is fairly simple. It favours short-term investment projects, which allows the investor to maintain liquidity.

13.1.1. Net present value (NPV)

The NPV method is the mathematical aggregate of the net benefit (which is also described as the sum of the net cash flows) generated by a given investment and gained in the entire economic cycle of an investment's life. These flows are discounted as appropriate prior to summing them up.

Three fundamental steps must be taken in order to determine the NPV. The first is to estimate the difference between the revenue and the expenditure, using the direct method. The cash flow value (NCF) is determined for the project's entire economic life. NCF may also be ascertained in a simplified manner, namely by adjusting the relevant financial result.

The next step is to estimate the net present value (i.e. as of the time of the estimation) of each cash flow. Thus individual NCFs are discounted with the use of relevant discount factors.

Finally, all net cash flows are summed up. The result is the aggregate net benefit of the estimated investment, that is the NPV.

Assuming a fixed discount rate throughout the entire period, the NPV algorithm is as follows: Such an assumption is possible, because a fixed relation of debt to the market value of the investment is assumed.

$$NPV = NCF_0^{"-"} + \frac{NCF_1^{"-}}{(1+k)^1} + \frac{NCF_2^{"+}}{(1+k)^2} + \dots + \frac{NCF_n^{"+}}{(1+k)^n}$$

$$NPV = \sum_{t=0}^m \frac{NCF_t^{"-}}{(1+k)^t} + \sum_{t=m+1}^n \frac{NCF_t^{"+}}{(1+k)^t}$$

The algorithm of estimating the NPV in the direct manner presented above does not indicate the necessity to take into account the outlays for the investment task at the pre-investment stage. It is namely assumed that $t=0$ is the time in which a given investment is undertaken. Yet the investment decision itself requires pre-investment expenditure. Therefore the said expenditure has to be considered in the calculation. These outlays ought to be deemed directly related to the investment, as they would not have been made if no such investment had been planned. The pre-investment expenditure must be estimated according to its present value. That is usually done by way of its capitalisation. Yet for certain categories of assets, such as for instance land, valuation reports including information on the value of the acquired land have to be drawn up.

It is of great significance to the NPV to determine when the investor reaches positive net cash flows. Does it happen in a cyclical pattern, proportionally in each period, or does the investor expect a one-time payment at the end of the project's life? This question is vital, as it determines how project surpluses may be reinvested. In the case of cyclical payments, reinvesting surpluses is to a large extent restricted.

The reinvestment of positive present net cash flows should be taken into account in a model assuming one payment at the end of the period. The reason is that investors expect to gain more than they originally invested. Capital which is paid off later is relatively more expensive than capital paid off at the outset, due to the financing costs. Engaging their resources in a particular project, investors refrain from investing in other assets. That is why they expect to gain a bonus.

What we call the cost of capital in the case of the investment is the rate of return on an investment task in the case of the investor.

Therefore it is not necessary for the model to take into account the re-investment of resources from positive cash flows in the case of cyclical payments to the investor. In the event of a one-time payment, however, the operation should be considered.

13.1.4. Internal rate of return (IRR)

The internal rate of return approach is based on three fundamental premises. The first one concerns the yield curve, which remains flat throughout the investment's entire life. Therefore the method is based on the premise that the discount rates, and thus also the cost of capital, stay unchanged for the entire period.

The second premise pertains to the positive net cash flows generated during the life of the investment. Until the end of the life of the investment, all these cash flows are reinvested in assets whose structure and rate of return are identical to those of the original investment. They are reinvested according to an interest rate corresponding precisely with the determined internal rate of return. Additionally, IRR means that the analysis concerns a typical investment.

Only then is it possible to determine the IRR in an unambiguous and direct manner. The above mentioned typicality entails that the net cash flows change their sign only once during the entire life of the investment. In the first year or in the initial period the cash flows are negative, then they become positive. It means that after the periods when expenditure exceeds revenue comes the continuous period when the revenue exceeds the expenditure.

Moreover, the aggregate of the net cash flows in the years of surplus calculated without discounting is supposed to be higher than the absolute value of such aggregate in the years when the worth of expenditure was higher. It can be described in the form of the following equation:

$$\sum_{t=m+1}^n NCF_t^{ "+" } > \sum_{t=0}^m NCF_t^{ "-" }$$

If there is no such inequality, the IRR does not exist. That is because no discount rate could make NPV=0.

The essence of the IRR is determining a rate of return which reflects the entire investment and constitutes the internal rate at the same time. It means that the rate depends exclusively on the value of the net cash flows over time generated by the investment. It does not, however, hinge upon external, market rates of return.³⁵²

The IRR is at the same time the monetary rate of return. It is namely based on the net cash flows (cash-based approach) and not on profit (accrual-based approach).

³⁵² J. Pawłowski, *Metodyka oceny efektywności finansowej przedsiębiorstw gospodarczych*, Łódź 2004, p. 74.

The percentage evaluation of cost-effectiveness renders IRR one of the most convenient tools in assessing projects. The percentage result is relatively easy to interpret and compare. The mathematical algorithm of the IRR is the NPV equation for a particular discount rate, referred to as the cut-off rate, for which NPV=0.

In practice, the models for NPV and for IRR are similar. The difference between the two methods is that the NPV approach has a defined rate of return which is included in the model, while in the IRR method, the rate is determined on the basis of the premise that NPV=0. Thus the IRR may be described by the following equation:

$$NPV = \sum_{t=0}^n \frac{NCF_t}{(1 + IRR)^t} = 0$$

The internal rate of return may be interpreted in two manners. The first expresses the monetary rate of return on capital which was invested in a project.³⁵³ That is because we treat the internal rate of return as a criterion of the absolute evaluation of profitability.³⁵⁴ The IRR is in this situation a source of information on the value of return which can be gained on the average during the life of the investment from 1 PLN of employed capital. The purpose of the monetary rate of return is to demonstrate the actual return, and not merely the periodical accounting result, which is typical of simple interest rates. The internal rate of return is determined on the basis of the entire investment and the net benefits expressed as net cash flows.

The second manner entails indicating the border capital cost (expressed as the weighted average cost of capital or the cost of equity), above which it is possible to gather the total capital or equity to finance a given investment. Thus, according to this interpretation it is possible to determine the cost of capital employed in the investment. In order to interpret the indicator in the above manner, it is necessary to assume that the cost of raising capital should be lower than the return generated by the investment. Only then will the result of the entire project be positive. Every investment where the cost of capital is higher than the IRR leads to the destruction of the company.

The IRR, similarly to the NPV, allows the investor to develop an absolute decision-making criterion. This criterion is the comparison of the IRR with the assumed rate of return required by the investor.

³⁵³ E.F. Brigham, L.C. Gapenski, Zarządzanie finansami, transl. M. Dyk et al., Warszawa 2000, p. 304; A Rutkowski, Zarządzanie finansami, Warszawa 2000, p. 205.

³⁵⁴ W. Rogowski..., op. cit., p. 377.

It may be indicated that the company's goodwill is contingent on the IRR. The higher the indicator, the higher the goodwill. The company's long-term goal may be therefore the maximization of its goodwill by means of carrying out high IRR investments. Yet the IRR should not be the sole decision-making criterion. Nevertheless, it constitutes a very useful tool to make decisions based on a multi-stage evaluation of the project.

13.1.5. Profitability index (PI)

The profitability index is based on the same premises as the NPV method. The NPV mathematical algorithm entails summing up all net benefits from a project in the course of its entire life. The profitability index method, on the other hand, refers the aggregate of the positive net cash flows (naturally after discounting them with the discount rate at the determined level) to the absolute negative value of the net cash flow in the first cycle of an investment's life. If such negative cash flows appear in several periods, then the denominator equals the discounted absolute value of all the negative cash flows.

$$PI = \frac{\sum_{t=1}^n \frac{NCF_t^{ "+" }}{(1+k)^t}}{|NCF_t^{ "-" }|}$$

This method involves a simplification. Negative net cash flows entail solely capital expenditure. Yet they do not cover flows such as the sale of redundant assets. Therefore the algorithm takes the following form:

$$PI = \frac{\sum_{t=m+1}^n \frac{NCF_t^{ "+" }}{(1+k)^t}}{|PVI|}$$

PVI – current value of capital expenditure

The profitability index is a method which determines how many present value units of positive net cash flows there are to one unit of the present value of negative net cash flows. Furthermore, it shows the extra return on investment. In other words, it indicates the return which a project may yield above the norm determined as the cost of capital employed in the project.

The absolute decision-making criterion for the PI indicator may be developed very similarly to the criterion based on the NPV.

Thus, for:

PI > 1 – the investment is profitable – fit for further actions

PI = 1 – the investment is neutral

PI < 1 – the investment is unprofitable – to be rejected

The PI method can be a supplement to the NPV method when carrying out the absolute profitability assessment of an investment, as it gives information on the investment's safety margin. It indicates how far we may expect an average drop of the present value of the positive net cash flows generated by the investment before the project reaches border profitability expressed as NPV=0.

13. 2. Model of profitability assessment for an investment in a biogas power plant

13.2.1. Premises of the project

The above presented information on preparing a profitability analysis of an investment in a biogas power plant allows us to develop a model, whose purpose will be to support the decision-making process concerning the construction of the plant.

The first step prior to commencing the development of the model is to determine its premises. Investment means a completely new activity, not related to any enterprise. The construction and further operation of the power plant require establishing a special purpose entity.

The launch of the investment is planned for the third quarter of 2016. The preliminary stage involves purchasing land where the biogas power plant will be erected and beginning the procedure of meeting formal legal requirements. According to the Institute for Renewable Energy, the cost of constructing a biogas power plant in Poland amounts to approximately 15 million PLN/MW³⁵⁵. According to the model, the construction of the power plant from the purchase of land to the launch of the plant will cost slightly more than 16 million PLN. Additionally, it is assumed that the investor will be awarded grant aid for the construction of the biogas power plant in the third quarter. The grant is expected to amount to around 5 million PLN. This expectation is based on realistic chances to receive such an award. At the point of applying for grant aid, it can namely turn out that a higher award is possible. That can only improve the project's result, therefore the value will remain unchanged for the purpose of the analysis.

³⁵⁵ <http://gramwzielone.pl/bioenergia/2795/ile-kosztuje-budowa-biogazowni-i-kiedy-sie-zwroci> (date of access: 01.06.2014).

Activities in all domains are planned for 2017. The year will commence with obtaining funding in the form of a long-term loan. According to the model, the investor will take a soft loan of 3,200,000 PLN. The cost of capital will amount to 3% over the entire crediting period. The remaining sum, i.e. 7,200,000.00 PLN, will be acquired at 7% in the first term and at 6% subsequent to the launch of the biogas power plant.

Interest will be paid immediately upon incurring the obligation, while the principal in the case of each loan will be paid back for ten years, starting in December 2018.

The assessment excludes VAT. It is assumed that the investor will apply for a VAT reimbursement for each period. Thus the tax will become neutral from the point of view of the assessment of the investment.

It is further assumed that the biogas power plant will operate for 8000 hours a year. This amounts to 334 days, i.e. 91% of the year. The assumption does not allow for too much downtime or time for maintenance work, and at least one person has to be constantly present on the premises for the plant to operate. Although numerous activities are carried out mechanically, an immediate reaction in the case of a failure is indispensable.

Following the above premises, the plant will be able to generate electric power and heat. The values which may be reached by the plant are presented in Table 13.1.

Table 13.1
Power and heat generation in the model biogas power plant

Parameter	Value	Unit
Theoretical thermal input	1.18	MWt
Theoretical electric power	1.04	MWe
Total heat generation	34,043.37	GJ/year
Heat used for operation	8,510.84	GJ/year
Heat surplus for sale	6,808.674	GJ/year
Heat surplus for sale	20	%
Total power generation	8,356.9	MWhe/year
Electric power used for operation	752.12	MWhe/year
Electric power for sale	7,604.78	MWhe/year
Annual methane production	2,626,00.61	m ³ /year
Methane production per hour	299.78	m ³ /h
Annual energy production	24,081.07	MWh/year

Source: authors' calculation on the basis of the biogas calculator www.mae.com.pl (date of access: 01.03.2016).

According to the model, some of the electric power and the heat will be used for the operation of the power plant. As for heat, only 20% of the production is subject to sale. The situation differs in terms of electric power, as over 90% of the production will be sold.

The above chart demonstrates that the production of biogas follows a cyclical pattern from the moment of launching the power plant and setting up the entire process. Thus it is known in advance how much material will be needed, and for how long, and what energy can be contracted to be sold to the operator.

From the point of view of operating a biogas power plant, this allows for an efficient management of objects with a relatively low involvement of humans. The employees operating the plant must be very well acquainted with its technical construction. Maintaining the power plant fully operational is namely a prerequisite of efficient biogas production.

13.2.2. Financing model

The financing model for the analysed biogas power plant is meant to demonstrate the entire expenditure from the moment of taking the decision to commence the construction to its full return. Thus the model covers the period from 2016 to the end of 2017 as the construction stage and the period from 2018, when power generation is commenced, to 2027. This chapter presents the results of the analysis.

Prior to developing the model it is necessary to estimate capital expenditure. It is estimated that it will not exceed 16.1 million PLN in the biogas power plant under consideration. The capital will be derived from the following sources: grant aid, soft loan, commercial credit and the investor's own resources. Current expenditure and a part of the land purchase will be covered from own resources. They will constitute the investor's contribution. Technology, buildings, appliances and machines as well as infrastructure will be financed proportionally from three external sources of capital.

The outlays are presented in Table 13.2. It can be easily noticed that the most expensive element is the cogeneration system including the digestion chambers and the related installations. They make up almost 50%, half of the outlays.

Table 13.2
Financial outlays for the construction of a biogas power plant

Type of expenditure	Share	Value
Purchase of land	5.00%	795,340.00
Purchase of technology	4.00%	644,000.00
Biogas treatment/desulphurisation installation	4.00%	644,000.00
Digestion chambers	19.00%	3,059,000.00
Other reservoirs	4.00%	644,000.00
Cogeneration system	21.00%	3,381,000.00
Design documentation	3.00%	483,000.00
Start-up	3.00%	483,000.00
Transformer station	5.00%	805,000.00
Waste loading station	4.00%	644,000.00
Dispensing mechanism	3.00%	483,000.00
Control-testing unit	3.00%	483,000.00
Vehicle fleet for loading	3.00%	483,000.00
Infrastructure and roads	4.84%	779,240.00
Electrical installation, lightning and over-voltage protection	4.00%	644,000.00
Heat switching station + heat piping	4.00%	644,000.00
Operating costs (current expenditure)	6.22%	1,001,420.00
Total capital expenditure	100.00%	16,100,000.00

Source: authors' study.

Having estimated the costs of the investment, it is possible to estimate the revenue and the costs on the operational level. They appear in the model for the first time in 2018, when the biogas power plant is launched. It is assumed that the launch takes place in January 2018 in order for the plant to generate 8000 h in the course of the year. Furthermore, the only form of support are going to be the green certificates according to the applicable provisions in effect at the moment of the analysis. The tendering system is still being developed, it has not yet been effectively implemented and it is difficult to follow its premises as of the time of developing the model.

Both revenue and costs are estimated in a none too optimistic variant, i.e. one which is similar to the current market conditions. These conditions are very difficult due to the low revenue generated by the biogas power plant.

Table 13.3
Estimated revenue and costs of the biogas power plant

Premises for forecasting the plant's operating activities	Value	Unit
Price per unit:		
Green certificates	187	PLN/MWh
Electric power price	195	PLN/MWh
District heating price	44	PLN/GJ
Revenue:		
Annual revenue from green certificates	1,482,932.10	PLN
Annual revenue from the sale of electric power	1,422,093.86	PLN
Annual revenue from the sale of heat	299,581.66	PLN
Total capital expenditure	16,100,000.00	PLN
Annual operating costs	1,494,412.00	PLN

Source: authors' study.

Having estimated all the above parameters we can introduce them into the model and watch those that are critical in the decision-making process.

13.2.3. Investment profitability analysis

One of the last steps before deciding to invest in a biogas power plant is to analyse all the areas represented in the model, in particular the critical indicators which constitute a multidimensional reflection of the planned investment. And so the investment account shows a positive result starting in 2018. The cash flow in the final period is positive, which gives the investment a green light.

The key indicators from the perspective of the planned investment are presented in Table 13.4.

If we exclude the condition to discount cash flows, we achieve a return on investment as early as after 33 months, i.e. in the ninth year of the plant's operation. When the condition to discount cash flows is included, however, the investment recoups the costs a year later, that is in the tenth year following the launch of the power plant. In the first year of operation, the biogas power plant will yield the rate of return at 4.1%. This value must be assessed as positive, as investments very often fail to be profitable in the initial two, three periods. Taking amortisation into account, we achieve a rate of return of 13.07%, which is a very good result.

Table 13.4
Results of the indicator analysis of a biogas power plant investment

Indicator	Value
Simple payback period (in quarters) =	33
Simple payback period (in years) =	8.25
Activation of full production capacity	2016
Rate of return for the first period after activating full production capacity =	4.10%
Rate of return (including amortisation) =	13.07%
Discounted payback period (in quarters) =	37
Discounted payback period (in years) =	9.25
Internal rate of return =	8.29%
Net present value =	4,733,549.90 PLN
Profitability index =	7.90%

Source: authors' study.

Both the IRR and the PI indicate that the investment is profitable. They exceed the cost of capital, which may lead to the conclusion that the investment will be profitable in the long term. What is important, a great deal of experts quote data, according to which a return on investment may be expected within three years. Yet this data is not reliable. In the case of projects with considerable investment expenditure in relation to annual revenue, it is often said that return on investment should occur before the end of the tenth year of the investment operating at full capacity. This condition is met in the analysed case.

Thus the model shows that an investment in a biogas power plant in the assumed configuration is profitable.

13.2.4. Project sensitivity analysis

Project sensitivity analysis is an extension of the traditional model of discounted cash flows. Its purpose is to demonstrate the impact the change of a singular base variable may have on the investment. The analysis shows how the investment value changes depending on varying risk parameters.

The biogas power plant investment has also been subjected to a sensitivity analysis. It was tested how the key parameters change depending on alterations of the base values.

The chart reflects the sensitivity of the project. The first element is the consequence of failing to receive grant aid and having to cover 5 million PLN from a commercial credit. The chart shows the effect on the relevant indicators.

Part 2. EFFECTIVE MANAGEMENT IN ORGANIZATION

The second modification of the model entails a higher cost of raising outside capital, amounting to 8%. The third and the fourth modification are related to the operation of the biogas power plant after its launch. They demonstrate how the result of the investment will be affected by a 20% drop in revenue with unaltered costs and by a 20% rise in costs with unaltered revenue.

The individual indicators following the modification of a chosen parameter are presented in Table 13.5. The results presented above suggest that both failing to receive grant aid and experiencing a drop in revenue by 20% (in the entire period of ten years) render the investment unprofitable. The rise of the operating and financing costs causes the profitability to decline and the payback period to lengthen. Yet the investment remains profitable to some extent, although it reaches its lowest limit in the event of a 20% increase of costs.

Table 13.5
Project sensitivity

Indicator	Base value	Parameter change			
		Lack of grant aid	Rise of the cost of outside capital to 8%	Drop in revenue by 20%	Increase of operating costs by 20%
Simple payback period (in quarters) =	33	41	33	41	37
Simple payback period (in years) =	8.25	10.25	8.25	10.25	9.25
Activating full production capacity – year	2016	2016	2016	2016	2016
Rate of return in the first period after activating full production capacity	13.07%	1.40%	4.72%	0.70%	2.80%
Rate of return (including mortisation)	13.07%	10%	13.70%	9.60%	400.00%
Discounted payback period (in quarters) =	37	none	41	none	45
Discounted payback period (in years) =	9.25	none	10.25	none	11.25
Internal rate of return =	8.29%	none	8.50%	none	5.90%
Net present value (thousands of PLN) =	4,733	-386	3,336	-604	2,320
Profitability index =	7.9%	none	4.93%	none	2.4%

Source: authors' study.

However, finances are not the only risk which ought to be taken into account when analysing the profitability of an investment in a biogas power plant. Social factors also play a crucial role in this domain. The construction of virtually every biogas power plant in Poland in recent years has been accompanied by considerable social opposition. The inhabitants of the adjacent areas fear that the investments could contribute to environmental degradation. Besides, they are worried that the operation of this type of facility in their neighbourhood could adversely affect the quality of their lives.

In addition, the domain of renewable energy sources is highly dependent on political decisions. Due to the intensive support for related activities from EU funds, it may turn out that such investments will receive even greater grant aid, which in turn will improve their financial effectiveness.

Another issue are the prices of the certificates of origin and their trade on the commodity exchange. Following a trend of good prices, we have been experiencing a market failure since 2012. The cost of producing 1 MWh from renewable sources of energy is essentially higher than the cost of 1 MWh produced from traditional sources. And the operators do not offer particularly favourable prices. If we add low certificate prices, the balance is negative, as shown by the sensitivity analysis.

Thus the construction of a biogas power plant entails a high-risk investment. That may be observed in numerous areas. Apart from considering financial parameters, investors have to precisely analyse the risks related to the investment's impact on the environment and the local community. These are namely two areas which cannot be expressed by any parameters, but which may considerably affect the success of the entire investment.

13.2.5. Financial feasibility analysis

The last area subject to our study concerning the profitability of a biogas power plant investment will be its financial feasibility. According to the model, the investor will have the means to finance the investment. A large part of them will be external resources, namely from commercial credits, soft loans and grant aid. The investor's own contribution is supposed to amount to 10% of the investment cost. The liabilities will be repaid to the institutions financing the project starting in the first year of the power plant's operation, i.e. 2018.

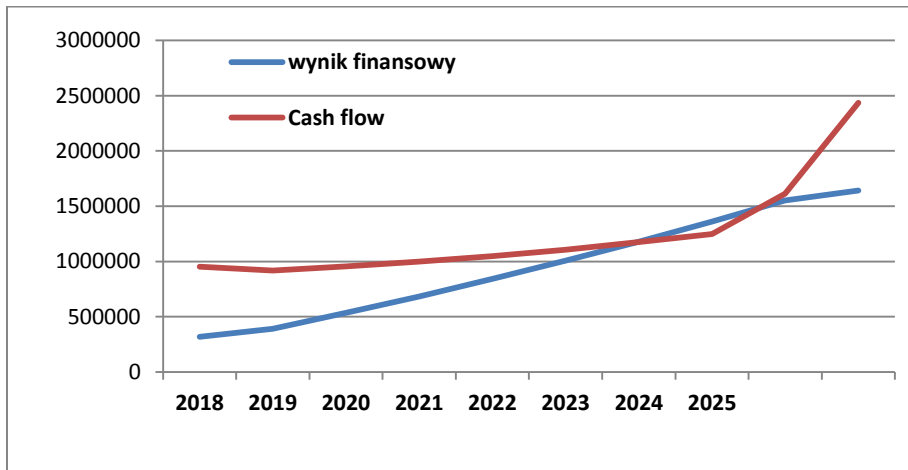
The repayment of debt requires launching the power plant, so that it can bring revenue to be used for covering the liabilities which will gradually become due.

Analysing the forecast cash flow and the financial result, we may note that the latter will be positive throughout the entire period of the power plant's operation, i.e. starting in 2018. In addition, no problems with liquidity

will arise. The cash flow remains constantly positive and does not approach the value of zero at any point.

Thus the model does not involve any difficulties in terms of feasibility. Moreover, as follows from the figure, slight fluctuations of each of the analysed parameters should not affect the result of the entire project considerably.

Figure 13.1
Cash flow and the financial result in the project's economic life cycle



Source: authors' study.

13.3. Recommendations

The construction of a biogas power plant is doubtlessly a major investment undertaking. Future investors need to have great financial means, high creditworthiness and comprehensive knowledge in numerous overlapping fields at the stage of planning and carrying out the investment.

A biogas power plant may be a financially effective tool of generating green energy. The model analysis of the construction and operation of a biogas power plant carried out in the article proves that such an investment is economically profitable.

What is, however, important, is the very high risk of investing resources in this field. It must be taken into account at every stage of investment planning, as well as during the plant's operation.

If we analyse the entire investment solely from the financial point of view, we must emphasise that the cost of constructing a 1 MWh biogas power plant amounts to approximately 16 million PLN. A future investor needs to

possess around 10% of their own funds and may apply for grant aid of approximately 5 million PLN. The remaining sum is external capital, gained partly as a soft loan, partly as a commercial bank credit. Over the first years, i.e. in the construction period, the power plant yields no profit. In the best-case scenario, if the investment was perfectly prepared, this period may slightly exceed a year and four months. This is also the assumption of the discussed model.

According to the model, the investor may expect the rate of return to reach 4%, and after amortisation even 13% over the first year of the plant's operation. The discounted payback period is over nine years. Therefore the desired financial effects can be reached only in the second decade of operating the biogas power plant. The ten-year operating period ends with the internal rate of return exceeding 8%, and the profitability index is only slightly below 8%. These results constitute a good forecast. The cost of capital in the model is estimated at 7% in commercial banks and at 3% in the case of the soft loan. This shows that the rates of return on each level exceed the cost of capital, which means that the investment is financially profitable. What is crucial, the analysed model biogas power plant evinces high sensitivity to the modification of the key financial parameters. The lack of grant aid and a drop in revenue by 20% each year will cause the investment to become financially unprofitable. An increase in the operating costs of the plant by 20% each year and an increase in the costs of gaining external capital for the plant construction will cause the payback period to lengthen, yet do not render the entire investment unprofitable. Still, the simulation shows that the investment is highly sensitive to changes of the key parameters.

The biogas market is further characterised by numerous obstacles and barriers, which also need to be taken into account in the analysis. They can be systematically divided into four main categories: social, organisational, technical and technological as well as financial and legal obstacles³⁵⁶.

Social obstacles:

- ✓ negative perception of future investors by the inhabitants of the areas where the construction is planned,
- ✓ uncertainty of future investors due to the deep instability of the sector.

Organisational obstacles:

- ✓ lack of local land use plans,
- ✓ lack of expertise of clerks who are supposed to supervise the investment,
- ✓ organisational fragmentation of the industry,
- ✓ the necessity to correlate heat reception with biogas production, particularly in rural areas, which have no heat transmission infrastructure,

³⁵⁶ F. Krawiec, *Odnawialne źródła energii w świetle globalnego kryzysu energetycznego. Wybrane problemy*, Warszawa 2010, pp. 89-91.

- ✓ lack of Polish research laboratories and support centres for future investors,
- ✓ lack of creditable investment consulting.

Technical and technological obstacles:

- ✓ the temptation to invest in large biogas power plants, which render greater profit and allow the investors to gain higher return on capital employed,
- ✓ lack of support on the market for investors interested in constructing smaller power plants, caused by the lack of institutions which would run such small projects,
- ✓ lack of Polish technology, which would allow the investors to adjust the biogas power plants to the Polish market and thus reduce the investment costs,
- ✓ initial failed attempts and the popular opinion that investments in this sector involve high risk.

Financial and legal obstacles:

- ✓ lack of stable legislative support for renewable energy sources,
- ✓ high capital obstacles,
- ✓ the strong position of energy companies on the market and the necessity to fulfil their requirements, which are frequently too high for farmers who would like to thus expand their activity,
- ✓ bureaucracy at the stage of applying for public financial support,
- ✓ long payback period.

Investment in renewable energy sources should on no account be promoted for short-term reasons. It is an area of long-term investment, requiring systematic and consistent activities. What is not entirely viable today may become profitable over the course of several years. The list of obstacles which currently hinder the development of renewable sources of energy on every level may with time shrink. All obstacles – psychological, social, legal, financial and political – may become minimised or largely reduced. It is necessary to develop effective tools to promote and encourage investments in this field. Support for future investors and the education of society are the first steps that should be taken in order to contribute to an increasing number of investors in the sector. All these actions need to be subject to central coordination in order to ensure the full flow of information.

Summary

What is the future of the biogas sector – this question has been asked for years now. A reply can be given only once uniform legislation in this domain

appears. Poland has a major potential in terms of biogas. According to the EC report REFUEL, we possess approximately 12% of the biomass energy resources of Europe. Yet we are still unable to exploit them effectively. The lack of technological support from leading research centres in Poland renders the problems even more acute. Capital intensity continues to play the most prominent role. Considerable financial outlays combined with the prolonged payback period will remain the principal problems until the production of components required in the construction of biogas power plants increases. Moreover, the long-term benefits a future investor may gain have not been defined yet. And despite the fact that documents prepared by the Ministry of the Economy in the form of *The Guide for Investors Interested in Constructing Farm Biogas Power Plants* have dispelled a great deal of doubts, there is still a gap in the market. Even though each work on the subject is of great help, it does not provide ready-made solutions. It is necessary to make further attempts and develop practical models for such innovative solutions.

Every investment is a new challenge, a new perspective, and following the words of Steve Jobs, sometimes it is worthwhile to take greater risk in order to rise above the standards. Let us remember that ... *the people who are crazy enough to think they can change the world are the ones who do*³⁵⁷.

J. Paweł Giorgica³⁵⁸

14. The market and work conditions under the pressure of foreign capital. The case of “Biedronka”

14.1. Introduction

The aim of this article is to discuss some of the important aspects of the forming of the Polish model of capitalism using the case of the Biedronka discount store chain. The example shows that at the early stages of its development the Polish model of capitalism was based on the premises of the optimization of the benefits of an easy access to a large market share, availability of cheap labour and a quick accumulation and retention of capital

³⁵⁷ A passage from the Apple commercial “Think different” from 1997.

³⁵⁸ Siedlce University of Natural Sciences and Humanities, Faculty of Economic and Legal Sciences University of Siedlce, Poland.

for the purpose of reinvestment and business expansion to avail oneself of the competitive advantage of being the monopolist. It was in that period of time, when Biedronka quickly gained the status of the largest private employer. It was also then when Biedronka achieved high profitability thanks to the preferential tax policies of the Polish government. The situation in which foreign firms are given the opportunity to avoid paying taxes which results in creating an uneven market position amongst domestic and foreign firms presents a serious problem throughout Europe and is difficult to overcome. On the eve of the parliamentary elections in Poland and the expected change in the political scene the article aims at presenting new propositions of regulations regarding the inflowing foreign capital and looks at some difficulties in regard to the implementation of the proposed solutions.

In the midst of Poland's 2015 parliamentary elections the interest of the internet users was aroused by a post on Twitter by Radek Sikorski, the recently dismissed Speaker of the House, and a former minister of Foreign Affairs. It reads: "I apologize for putting forth a motion to honour the largest private employer in Poland. Mea culpa". In a country where it is generally accepted that the representatives of any political power or formation never apologize for anything that they have done, such an ironic form of convoluted apology brought about many various commentaries posted on the internet. Some of the writers wanted to view this as yet another attack on private capital. Others perceived it as an attempt to call attention to and to underscore the important role that is taken on by foreign capital in the overall growth of capitalism in this peripheral country. Those of leftist persuasions were convinced that it did not happen by mere chance, but that it constituted part of a broader economic concept of the imperative subordination of Polish workers and Polish producers to the foreign owner and salesman, who did not toil in producing the goods, but made a large profit on sales, was excused from paying taxes and on the top of it all was recognized and awarded a distinguished award by the government.

The incident has raised some questions. Was it fair and was it right to honor the Portugese capitalist Pedro Pereira da Silva - Chief Operations Officer at Jeronimo Martins Group & Country Manager at Jeronimo Martins Poland & Portugal - otherwise known as the Biedronka discount store chain in Poland, who, at least for some people, carried the image of a swashbuckling notoriety, with the Order of Merit of the Republic of Poland?

The Order of Merit of the Republic of Poland that was awarded to da Silva, is generally awarded by the President of Poland to foreigners or Poles who reside abroad for distinguished contribution to international cooperation or cooperation between Poland and other countries. Although, amongst the

recipients are people like Stephane Antiga, the French coach of the Polish volleyball representation and Bronislaw Misztal, the current Polish Ambassador to Portugal and the instigator of the idea of granting the award, there are not many commonly recognized persons from the economic sphere.

Nevertheless, the Order of Merit for the Chief of Biedronka was based on the motion made by the now former Minister of Foreign Affairs and formally approved by the now former President of Poland. All this was accompanied by the seemingly interests-less, but without a doubt measurable in effects, promotional campaign lead by the now departing ruling party with the Prime Minister, clearly in the lead. It is interesting that the policy of awarding a distinguished award to a foreign businessman did not make the headlines of the parliamentary campaign as yet another bone of contention. After the issue was brought to light by the media, the current Minister of Foreign Affairs, Grzegorz Schetyna, although not enthusiastic about the entire matter, but also not opposed to it, did not see anything wrong with honoring the controversial businessman with the Order of Merit. His official justification of the award was that: "*Biedronka is... a company with strong ties to Poland (starting with 1995, the company had invested over 10 billion PLN) and it strongly impacts out daily existence, therefore: such a gesture should be assessed without animosity and exaggeration*". However, speaking diplomatically, both ministers - the former and the current- appear to be lacking familiarity with the policy regarding the development of the "Polish Capitalism" that was implemented by the ruling and now departing party. A policy which appears to be perceived as controversial by many and for a number of years³⁵⁹. And in that sense the "Biedronka matter" writes itself into the discussion that was initiated by T. Piketty on the issue of the broader spectrum of the effects of the considerable role of the capital (especially the foreign capital) within the contemporary financialized economy³⁶⁰.

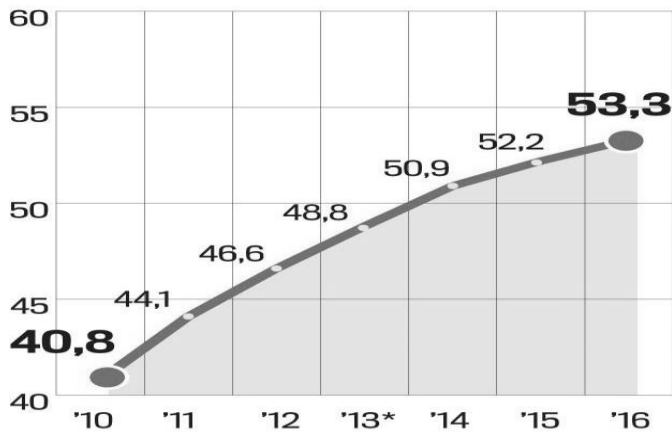
The business group Jeronimo Martins bought Biedronka as a start-up company in 1998 from the Polish "Al Capone" and today's billionaire

³⁵⁹ The award ceremony, which took place in August of 2015, was of a small and intimate character at the request of the beneficiary. The issue of the controversial behaviour by Biedronka on the Polish market during the first few years of its market activity in Poland was well described by Joanna Napieraj- Berlinska of the Łódź University Faculty of Management, in the article titled "Human Resource policy of the Biedronka chain of groceries discount stores (Polityka Personalna sieci dyskontów spożywczych Biedronka)", published on the Internet in 2005 and quickly removed soon thereafter. A large portion of labour relations problems that were presented within the article has not been resolved to date. One can familiarize oneself with the nature of these problems via the website of the Association "Stop Exploitation" (Stowarzyszenie Stop Wyzyskowi - Biedronka), <http://www.facebook.com?Stowarzyszenie-Stop-Wyzyskowi-Biedronka-439280996131479/>

³⁶⁰ T. Piketty (2014), *Capital in the Twenty-First Century*, Harvard University Press,

M. Świtalski. Back then Biedronka was made up of 240 poor quality discount stores and it was difficult to refer to it as a "Chain". Today, Biedronka employs over 55 thousand employees in its 2600 large-surface supermarkets with annual sales of 35 billion PLN . When considering that the value of the retail market in Poland is estimated at about 650 billion PLN with the food market amounting to about 243 billion³⁶¹, Biedronka's market share, as the largest private employer and the second largest company in Poland, although not a monopoly yet, appears to be quite handsome. The result of the PMR research shows that the arrival to Poland of foreign companies brought about significant changes in regard to both trading and employment. The large-surface super and hypermarkets and the discount stores control more than 50% of the grocery market in Poland. The market share of small grocery stores went on shrinking to reach less than 50% in 2014. It is estimated by Roland Berger that by 2018, the market share of small grocers will bet about 28%, and the share of the discount stores will grow from 22% up to about 31%, and within this the share of supermarkets will increase from 20% up to 28%.

Figure 14.1
The current and forecasted market share (%) of the supermarket of the food retail market in Poland in the years 2010-2016



Source: Raport PMR(2015). Quoted.

The Acquisition of Biedronka proved to be a well-aimed investment. It was progressing in a very promising way from the world go. As a matter of fact, it was doing so well that Louis Maral, second to da Silva, grand manager

³⁶¹ "Handel detaliczny artykułami spożywczymi w Polsce 2015. Analiza rynku i prognozy rozwoju na lata 2015-2020". Raport PMR, lipiec 2015. (Retail trade of edible goods in Poland in 2015. Analysis and forecast for the years 2015-2020". Raport PMR, July 2015.

of Biedronka himself invested 120 million PLN in a wholesale business under the name of Eurocash which quickly gained second place, to the retailer Biedronka, in the market of the fast moving consumer goods (FMCG) that are sold at a low price by minimal wage sales people. In 2005, Biedronka had already 700 discount stores and employed over 11 thousand workers. However, the true surge of Biedronka's occurred in 2011. During the subsequent four years Biedronka continued to grow. In Warsaw alone, there were 15 new stores added annually on average and the owner began to think about changing strategy towards the more focusing on affluent client in bigger cities. Currently, the company plans to open about 400 new stores with the floor surface between 600-950 square meters and to invest approximately 700-800 million Euro to create a new category of the food retail store called "dis-convenience" - which is to be a hybrid between the discount and the local mini-delicatessen stores.

The key contribution by Da Silve in terms of mass creation of jobs within a job market with the oversupply of cheap labour has not been fully appreciated. Perhaps, because of the fact that this important indicator of the efficiency of the economy was somewhat forgotten with the economic boom. Moreover, it is questionable, whether the jobs, which first disappeared and then were recreated by Biedronka provide the basis for a secondary reproduction? Certainly not. If there was no Biedronka, there would be, without a doubt, somebody else with comparable capital and the ability to create cheap-labour jobs, availing itself of the benefits of the preferential public policy toward foreign capital and foreign companies, which have been unmatched, anywhere in the European Union, access to special economic zones and competitively lower than other entities' rates of the PIT income tax (1.2%). The inflow of foreign capital brought about other costs like the consolidation of the peripheral position of Poland within the world market. Evidently, the relatively large Polish retail market (over three times larger than the Portuguese market) still offers some basic reserves in terms of growth. Due to lower earning levels in Poland, the purchases in chain discount stores such as Biedronka are three times lower, in terms of cash spent, than in Western Europe. Perhaps, this is why the core of the critique of the opponents is focused on the lower level of taxes being paid to the state budget by the foreign discount stores. In 2013, the owner of Biedronka paid to the State Treasury 302,3 million PLN in taxes. This constituted about 1% of the sales revenue. It does not offer much comfort when contrasting this with the fact that other - some of the largest, retail chains in Poland practically pay no taxes from the origin of their economic activity in Poland applying the practice of the aggressive optimization which is based on employing the legal loopholes to avoid paying taxes. For instance, the German store Kaufland paid zero in

the Corporate Income Tax (CIT) and the lawyers of the French chain Carrefour were even able to secure 14 million PLN as CIT refund. CIT does not constitute a significant source of income for the Polish Treasury.

For instance, in accordance with Polish law a limited partnership (LP) company is not a payee of income tax. The foreign capital firms make great use of that legal provision to move their profits out of Poland, notabene, such practice is not only particular to Poland. The problem of tax evasion and the imbalance between the domestic and the global foreign companies is becoming more pervasive in Europe and it is also more seriously treated by the EU, but it affects Poland and our region in a particular way. A half of the foreign capital companies doing business in Poland (with the exception of the financial sector) have declared that their economic activity does not generate profit. Therefore, they are not mandated to pay CIT³⁶². According to various data the size of the CIT tax loophole in Poland, which includes all that is not paid to the treasury in the form of taxes, is estimated at somewhere between 10-46 billion PLN annually. In 2008 the CIT share in GDP accounted for 2.7% annually. In 2014, it went down to 1.7% accounted within this is also the decrease in the payment of CIT by the SMEs.

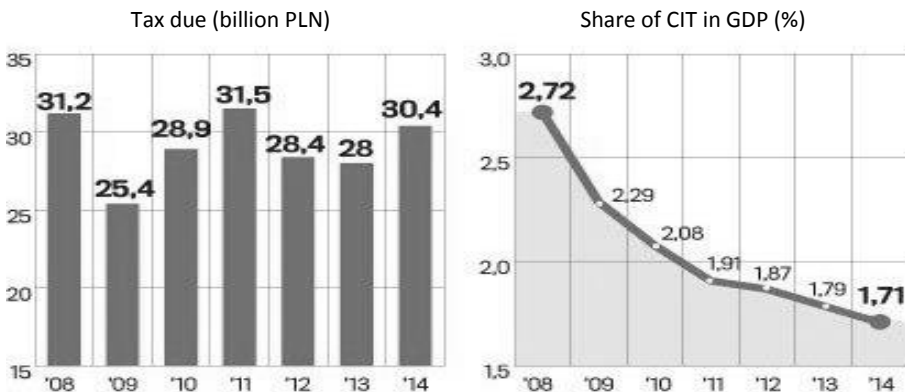
According to, A. Arendarski, the Head of the National Chamber of Commerce in Poland, the size of the phenomenon of the evasion of CIT is currently so great that it affects the functioning of the entire market and demoralizes the so called "good" - honest, tax payers. To stay afloat and to effectively compete within the market, the domestic companies begin to engage in the same tax evasion practices or stand the risk of going out of business. Such practices lead to entering into alliances between the employer associations and the political parties that are currently in the opposition. It is promoted under such slogans like economic patriotism or the rebirth of the Polish economic identity and not under the banners of the left-wing parties. Still, the aim is the same, it is to lobby for equality and against the discrimination of the domestic economic entities, to get rid of the inequality of rights and to establish and secure market conditions under which domestic and foreign companies will be able to compete on an even footing (doing away with numerous privileges granted to the foreign entities i.e. authoritatively granted tax exemptions)³⁶³.

³⁶² A. Gromada, T. Janyst, K. Golik, "Kapitał Zagraniczny w Polsce: czy jesteśmy gospodarką poddostawcy?" (Foreign Capital in Poland: are we the economy of the undersupplier?) Fundacja Kaleckiego 2015.

³⁶³ Koalicja Polskich Przedsiębiorców i Handlowców, podpisała z Polska Razem - Zjednoczona Prawica, "Porozumienie na rzecz polskiej przedsiębiorczości" (The Coalition of the Polish Entrepreneurs and Traders and the Poland Together - The United Right-Wing Parties entered into the Agreement for the Polish Entrepreneurship"), [http://www.debata.olsztyn.pl/images/Porozumienie.pdf\(9X2015\)](http://www.debata.olsztyn.pl/images/Porozumienie.pdf(9X2015)), oraz http://wyborcza.biz/biznes/1,100896,16446179,Dyskonty_wykancazaja_male_sklepy_Kaczynski_szykuje.

Therefore the key contributors of CIT are the state own enterprises, alias strategic companies in which the State is the key shareholder. However, it must be noted that all things considered, Biedronka is a relatively solid payer of taxes - the largest - amongst the foreign companies. What is then the relation between the CIT paid to the state treasury and the profits? It is not well known because the discount companies guard the profit data very diligently and pay no revenue tax (it has been replaced by VAT since 2003). However, it can be somewhat estimated on the basis of the revenue of the Biedronka "Twin" - the Eurocash where the revenue reported for 2014, was 16.9 billion PLN with the profit at the operations level of 100 million PLN. Biedronka can pride itself on a revenue twice that level (increase in 2014 by 9%). Biedronka's profit is estimated at about 6%, (The Polish chain PSS "Społem" shows a profit at about 1%, while the profitability of other Polish franchise chains does not go over 0.7%)³⁶⁴.

Figure 14.2
Polish Budget Revenue from CIT (2008-2014)



Source: Ministry of the Treasury.

It is obvious that the growth of a dependent economic system, that is characterized by low labour costs, and low value added production that is blended with a leaking tax system, particularly when it gets to the privileged foreign investors and entrepreneurs will be visibly and inescapably impacted negatively by all these conditions. Particularly, when comparing it with other counterpart countries from the point of the developmental dynamics and

<http://wyborcza.biz/Firma/1,101618,18994193, ministerstwo-finansow-ostro-zabralo-sie-za-walke-z-unikaniem.html#ixzz3o5r3yFSa> (08.08.2014).

³⁶⁴ <http://www.dziennikpolski24.pl/artykul/8180188, rodzimi-sklepikarze-i-producenci-chca-wspolnie-odbic-polski-handel,id,t.html?cookie=1> (24.09.2015).

market competitiveness. Moreover, the prolonged situation of preferential treatment of the foreign capital may result in a further decrease of the budget revenue with further economic growth occurring at the expense of the already heavily in debt budget.

The financial experts call attention to the fact that the calculation of the shareholders is simple: it is much more difficult, in the globalized economy, to increase profits using the market mechanism, it is much easier done at the expense of the state budget. Why waste capital on expensive in implementation and uncertain in effects innovations when it is much easier and cost effective to look for and employ innovative methods to avoid or at least considerably lower the outflow of money in the form of taxes. For immediate effects that bring sizable profits it is best to invest in the

- "Legislative business" of writing statutes and/or regulations that alter, remove or relax tax obligations and pass these onto the politicians that do not understand or do not care about the consequences to make sure that such acts or regulations are adopted; or
- "Tax optimization business" of acquiring the services of the "tax evasion specialists" who will build the necessary organizational structures or transaction structures, which will be absolutely bogus and fictional, but will ensure that the conditions for a successful and lawful avoidance of taxes are in place³⁶⁵.

As to the "legislative business", the willingness and readiness of politicians to participate in such schemes to protect foreign discounts within our sizable (by the European scale) market is quite puzzling. Initially, it probably resulted from the policy adopted by the rulers "to hunt the capitalist"³⁶⁶. However, it is unknown why the leader of the ruling party and the Prime Minister, brutally eliminated from the Polish political scene the politician leading in popularity in the social media, who was the key initiator of the initiative to award the maker of Biedronka, while at the same time, defending the matter of the award in the public media. With her appearance on public TV in the role of the First Homemaker of the Land, and by making a statement "it's true - the vegetables at Biedronka are the best" the Prime Minister gave Biedronka a marketing gift, of real value that from a business

³⁶⁵ W. Modzelewski, "Podatkami od dawna już nie rządzą politycy lecz biznes optymalizacyjny". (For the longest time now taxes are not governed by the politicians, but by the optimization business). http://www.otoclub.pl/temat_,208,podatkami-od-dawna-nie-rzadz-politycy-lecz-biznes-optymalizacyjny.html (14.X.2015).

³⁶⁶ Designation made by the former Prime Minister J.K. Bielecki pertaining to the characteristics of the activities undertaken by the rulers during the period of birthing of the Polish capitalism up to the year 1998. <http://kalecki.org/wp-content/uploads/2015/10/Kapital-Zagraniczny-w-Polsce-raport-Fundacji-Kaleckiego.pdf>

perspective was estimated at +7.2 million PLN. However, the political cost of such a occurrence appears also to be quite significant. Such a proclamation can be interpreted as giving a blessing to other members of the public administration and political officials who are involved or are prone to engage in similar activities within the framework of the "legislative business" of lobbying on behalf, and for the benefit of the interests of the foreign capital that operates within the Polish market. The successful blocking of the legislative initiative to make it impossible to by-pass the tax laws and prevent the flow of profits out of Poland, promised by the ruling PO party from the beginning, is a good example of the "legislative business". It is widely known that firms such as Biedronka strive to gain and maintain good relationships with the rulers. It establishes and sustains an agreeable climate around the business, the clients and the owners.

Where does the harmony and total agreement as to the holding of the safety umbrella over Biedronka comes from amongst the members of the governing party? How did they manage to work together with the State Labor Inspection Board (PIP) to support the foreign chains which are the deadly enemy of the domestic firms and in particular the small Mom&Pop stores and food producers?

The official propaganda line is that it is all about supporting the economic growth and development of Poland, job creation, participation by the firm at the local level and support for local initiatives and charity, and of course about the promotion of international social and economic ties between Poland and Portugal.

However, diligent analysis of the Polish labour market at the onset of the XXI century shows that the Polish economy lacks innovations and the jobs that Poland needs should be first and foremost within the Research and Development (R&D sector and it is for the R&D³⁶⁷ jobs that the rulers should be giving out the awards of merit. Who, if not the advanced foreign capital, should be bringing and implementing innovative technologies, offering the know-how creating new, high skill based jobs and training workers to fill the vacancies in these modern high paid jobs? This is paramount, especially that considering the demographic trends, and the unemployment indicators, it is apparent that Poland is entering the stage when it will no longer be able to supply cheap, unskilled labour. At the moment, Poland is on the brink of the

³⁶⁷ The research and development sector (sector R&D) is created by the institutions and people that concern themselves with enlarging the body of knowledge as well as finding new applications for the knowledge. The results are various innovations-in the areas of product, process or technology that are key to the expedient development of the economy i.e. foreign business service centers in Poland or the ABSL sector which employs about 150 thousand people.

"worker market" (according to various sources, the unemployment rate in Poland had fallen below 10% and will continue on the downward trend). It is similar to the market conditions in the years 2007-2008, (it was the beginning of Biedronka). Despite the fact that the market was then at a much earlier stage of development, it was the worker who dictated the terms and it was the employers who had to adhere, mainly by offering higher wages and more flexible terms of employment.

It is, nevertheless, somewhat puzzling, that it falls on our "green island" to sustain the development and global development of the equally peripheral economy of Portugal. Portugal has fallen into the trap of the average or the mid-level economic development. It is the economic system of the "under-supplier", who is awaiting its economic chance just alike the "under study" who for years awaits to play the star. For many years now Portugal has sunk into a deep financial crisis and it is there where the profits from the increasing revenue in Poland is being transferred. Maybe, it would be more appropriate for Portugal to award one of the Polish ministers of Foreign Affairs with their Portuguese order of virtue.

Neither the mainstream media nor any other soldiers of the ruling party speak about the issues that have been for years brought to the forefront by the Association Stop the Exploitation- Biedronka, who, using the language of the oppressed Left-Wing parties, talks about the Portugese colonizing Poland and establishing labour camps for the 58 thousand workers under the adequate to the situation marketing phrase "How lucky that Biedronka is so close" which seems to imply that it is no longer about the melange of jobs and freedom, but about the proximity of happiness itself. So far, however, the Association perceives the situation as a chain of disasters and oppression of the Polish workers by the foreign capitalists. Consequently, the slogan about the "strong ties with Poland" takes on a progressively negative political meaning for those who are articulating the claims of the Biedronka Precariat. The Association points out that amongst the offenders of the late payments of past due VAT invoices for goods and services the retail and wholesale sector are the uncontested leaders (in general only 44% of VAT invoices are paid on time. Close to 10% of the past due invoices are paid after three months of the scheduled date. The self-prolongation of the payment due date is the easiest and the cheapest way of the self-granting of an interest free loan, which is then used to support on-going operations. Interestingly, while under the rule of the Citizen Platform (PO), Poland was listed almost at the end of the list of 15 European countries registered by the business morale understood as making timely payments of due invoices. It turns out that the last place on the

list belongs to Portugal where only 17.4% of invoices are paid on time³⁶⁸.

In reality, the mission declared by Biedronka, which formally contains all ethical standards that should be observed by a European enterprise, is a dormant set of various clauses in many areas. It is difficult, when assessing the activities carried out by the executive management, to find evidence that even the most basic standards as presented in the Code of Social Corporate Responsibility were observed. Of course, dishonest practices in regard to the workers were also occurring within other chains of this sector, but the case that happened within the Polish chain of Biedronka was considered by the labour courts as the model example of disregard for the labour code regulations³⁶⁹. Since 2003, it was documented before the Polish courts that Biedronka was undoubtedly introducing a modern system of exploitation of workers of the XXI Century. Amongst the elements of the system were: breaking the law regarding the remuneration and payment of wages; breaking the health and safety rules; the disrespect for human dignity and for the basic rights of the workers and union members, and forcing the suppliers into bankruptcy (which according to the Association constitutes a part of the corporate strategy), as well as many other issues.

Of the many pathologies that are observed within the supermarket, as a workplace, the most pervasive is the use of civil-legal contracts in place of a mandated under the Labour Code - work contract. The worst is the work order, which does not provide for any of the employment benefits, no health coverage, no paid vacation and the time worked under such contract is not considered as part of retirement. This form of employment was preferable to employers because under this agreement the employer was not mandated to pay his portion of any employment benefits which made the labour cost even lower thus improving the profit margin.

Biedronka officially claims that all of the above is in the past and that all outstanding employee claims are pure manipulation. The matter, however, is constantly evolving and the Association is coming forward with new claims in addition to the 290 million PLN already paid by Biedronka. The Association is, clearly hoping for political support for its efforts to vindicate the claims from the new political powers after the parliamentary elections are over.

The more intelligent defenders of the presence of the foreign market chains within the Polish market are posing some difficult questions regarding

³⁶⁸ Raport Bisnode D&B Polska. "Barometr płatności na świecie 2015" (The Barometer of Payments in the World 2015), http://www.bisnode.pl/blog/wp-content/uploads/2015/06/Bisnode-Polska-Barometr-P%C5%82atno%C5%9Bci_Ameryka.pdf.

³⁶⁹ The executive management of Biedronka does not assume the responsibility for any wrongdoing affixing all blame onto the lower level management. P. Pratley, "The Essence of Business Ethics", New York 1995.

our common future as a nation. Who, if not the foreign capital shall take on the role of the owner? Are we, while protecting our market under the banner of the repolonisation, taking on the risk of going back to the non-competitive and inefficient system of the PSS Społem? Will the new social class of the Precarians, that today is not defended by neither the United Left-Wing party, nor by the anti-system groups, be able to empower itself?

Contrary, to the common perception, the situation today differs from where we were in 1990 and there is a chance for a real alternative. For example, the collective ownership, which as a concept has proven to work quite well in other countries and it also has some successful implementations in Poland, in particular within the FMCG sector (i.e. The chain Auchan). However, a political will and support by the rules is needed to promote the model of the inclusive capitalistic enterprise where employees participate as owners and shareholders or a cooperative, which as an economic model worked very well in Poland before the second world war and even after it until it was practically dismantled following the Solidarity revolution.

The problem is that from the beginning of the transformation the politicians of all options believed in and promoted only one model (capital and stock) economic and ownership transformation. Meanwhile, the innovative research (nb. Financed out of the EU Funds) pertaining to the economic effectiveness under the collective ownership model in other countries shows that in 2001, within the EU there were 10 million collective ownership enterprises (4 million in France, 2.6 Million in the UK) with the collective value of the shares of 232 billion Euro. The success of the collective ownership enterprises in the UK resulted in the fact that the government forecasted that by the year 2020 the value of shares of the collective ownership enterprises will triple. At the moment the collective ownership companies contribute to the 3% increase of GDP and is growing by 10% annually³⁷⁰.

So what can be the foreseeable finale of the story in Poland? Judging by the 302 court rulings by which only the middle level management was found guilty of violating the Labour Code, the Ambassador RP to Portugal, who was directly responsible for carrying out the directive of the minister of Foreign affairs may as well be getting ready to return to Poland, because he does not have a scapegoat to pass the blame. The fact that the Ambassador makes a motion to honour a person based solely on the person's position in his own country and the person's contribution to promoting Poland in the person's homeland, and the fact that the Ambassador cannot and therefore, should not

³⁷⁰ More on this: P. Gieorgica. "Spółki pracownicze – przepis na sukces" (The Workers' Companies – a recipe for success), (w:) Humanizacja pracy w warunkach współczesnego ładu gospodarczego (red. K. Kubala i Ł. Kutufo), Wydawnictwo Uniwersytetu Łódzkiego, 2014.

get involved in researching how the appointee conducts his or her business in Poland, are irrelevant in this situation. His former superior, Sikorski - now a citizen - has already apologized. Poland has a new President, who, along with his political support are busy looking for funds that enable him to deliver on the promises made during the electoral campaign.

So the issue whether in this case it was right or wrong to award the Order of Merit will be settled after the parliamentary elections in the late Autumn. The Law and Justice (PiS) party, is already moving forward. It promises to introduce changes in CIT, which are aimed at increasing the inflow of cash into the budget by about 4.1 billion PLN and is testing the reaction to the idea of introducing new tax for the big shopping centers. The main change will involve lowering taxes for small companies with revenue below 1.2 million PLN annually, from 19% to 15%. Also amongst the proposed changes were to exempt investments from taxable income and taxing the unreported revenue in situations where the taxpayer did not report the income, but the income was discovered and assessed by the tax authority. It aims at increasing the influx of money to the budget and at levelling the market prospects and competition. Taxed would be the big stores with a floor surface over 250 square meters and the tax rate would be 2%. The expected budget influx is estimated at about 3.5 billion PLN³⁷¹.

However, the neoliberal critics say that the above presented solutions and other similar undertakings usually bring undesired results such as an increase in prices (after all tax changes always in the end, are paid for by the low wage earning consumer) and strengthen the market position of the big players while negatively affecting small and medium companies. Even if the legislative ideas of the new ruler, who are now getting ready to take over after the elections, are implemented (although some constitutional obstacles are expected) it may speed up the consolidation of the market which is already desired by the biggest market players. A similar situation existed in the past during the two years when, PiS while in power, forced the legislation regarding restrictions regarding construction of the big shopping centers. The idea was to protect small trade. However, it backfired and instead of helping the small domestic business open the field to the big foreign players such as Biedronka. Regardless of the political situation there is a chance that by the end of the decade in Poland there will be only a few big chains remaining and within

³⁷¹ P. Mączyński, L. Kostrzewski "Dyskonty wykańczają małe sklepy. Kaczyński szykuje bat", [http://wyborcza.biz/biznes/l=1,100896,16446179,Dyskonty_wykanczja_male_sklepy_Kaczynski_szykuje.html#ixzz3o6Hxmj8e\(08.08.2014\)](http://wyborcza.biz/biznes/l=1,100896,16446179,Dyskonty_wykanczja_male_sklepy_Kaczynski_szykuje.html#ixzz3o6Hxmj8e(08.08.2014)); Propozycje PiS: Zmiany w VAT i CIT, 3,5 mld zł od hipermarketów, [http://wyborcza.biz/biznes/1,100896,19003427,propozycje-podatkowe-prawa-i-sprawiedliwosci.html#ixzz3oCLYAtIN\(10.10.2015\)](http://wyborcza.biz/biznes/1,100896,19003427,propozycje-podatkowe-prawa-i-sprawiedliwosci.html#ixzz3oCLYAtIN(10.10.2015)).

these two discount store chains. And when the consolidation is completed, there will be no more reason to maintain low prices. It will be the time to harvest the profits, the time that is awaited by any monopolist.

There are some other undesired scenarios such as the fear that in response to the war against the aggressive tax evasion by the large companies, the big players will successfully lobby for a blanket - all European tax legislation that would be imposed by the EU on countries such a Poland³⁷².

At the end the phenomenon of Biedronka's success may be a worthless endeavour. It may just turn out that the symbolic gesture of Poland awarding business with the Order of Merit was not a good initiative after all. However, the truth being said, there was nobody amongst the Polish entrepreneurs (within the framework of the "global policy of reciprocity") who availed himself of the opportunity to enter the FMCG market in Portugal; neither PSS "Społem" nor "Alma" or "Piotr i Paweł".

So far, the truth is that vegetables in Poland always were and will be of the best quality only in such market conditions that cannot be overregulated. Foreign chains reluctantly pay taxes in weaker markets of the under supplier economies. They are eager to pass the tax increases onto the customers and happily drain the pockets of the wage earners and the domestic producers. The deregulated market and with opportunities for large scale tax evasion allows them to pass the cost of making profits on the other economic entities - the consumers, suppliers, environment, people in general and onto the state. Today, in times of the ever faster globalization, the Polish worker and the Polish producer have the feeling of being unfairly treated by their own government, a feeling of being enslaved in their own country because they have no other option but to sell their produce to the discounts and it is the owner of the discount that sets the price and decides whether he will even buy the product. It is indisputable, that the full analysis of the "Biedronka case" is more complex. It is not only about the agendas of the Association or the Right-Wing parties, it is not about whether Polish people are enslaved and at the mercy of foreign employers. The true question is: Polish citizens brought this predicament on themselves, whether they have disempowered themselves by blindly throwing themselves into the arms of the aggressive neoliberal capitalism? Perhaps they did and therefore, maybe after the change of the political guard, they will remain equally enslaved at the hands of the foreign and the domestic owner?

³⁷² More:<http://wpolityce.pl/polityka/2687-nasz-wywiad-prof-krasnodedbski-o-nastawieniu-niemcow-do-pis-koniecznej-zmianie-w-dyplomacji-pltforma-to-chaos-i-lemingowatosc-europejska> (17.10.2015).

Conclusions

New provisions of the Polish Tax Law that regulate the taxation of foreign companies doing business in Poland, expedite the desired consolidation of the marketplace by these companies. Contrary to prior proclamations, these changes lead rather to the validation of an oligopoly of the most powerful foreign chains and to the liquidation of the weaker domestic retailers³⁷³. A similar phenomenon was observed in Poland during the previous period of the reign of the current Political regime. The then forged government law on the restriction on building of the hypermarkets (which was justified by the need to protect the interests of the small domestic retailers) did not result, as was assumed, in the growth and expansion of the domestic small and medium family run businesses, but to the contrary it helped the Jeronimo Martins. Simply, when not permitted to build own hypermarkets, the company had bought out the local chain of its competitor and expanded it further under own new name "Biedronka".

The new policy on the relaxation of the economic dependency on foreign economies and the autarky of the Polish national development and growth does not appear to be fully feasible as an economic solution for Poland. According to the UN, in 2015 Poland found itself, for the first time, as the number 20 within the ranking among all countries of the World in terms of the volume of foreign investments. This gave Poland the ranking as the 5th country within Europe. Poland ranked 3rd (for the first time leading Germany) in terms of the numbers of jobs created by the influx of foreign capital.

The forthcoming years, considering the changes in the current government strategy, do not indicate continuation of that trend. Since the change of the ruling regime, a significant outflow of foreign capital from Poland has been noted, which as a country is still considered rather in terms of a high risk venture speculative market as opposed to a long-term solid stable investment. Consequently, to expedite economic growth, Poland would have to find an alternative (indigenous) source of funding which, when considering the expansive social policy of the current government, seems rather unlikely. The level of internal savings, which is somewhere between 18-19% GDP will not be able to sustain the expenditure level required for economic growth which is estimated at 24-25% of GDP. Therefore, attracting new foreign capital by guaranteeing a high rate of return on investment appears to be still the best solution in the situation of the lack of social acceptance of the thigh strap policy and low income jobs. If the higher rate of

³⁷³ More: Rafał Mamot, „Rynek detalicznego handlu spożywczego w Polsce” („Polish Food Retailing Industry”) Fundacja Republikańska, Warszawa 2016.

return on investment will not be sustained, the capital may choose to look elsewhere for its profits.

The foreign capital, including discount chains and hypermarkets, is reluctant to pay taxes and it generates higher profits while operating within the weak vendors and suppliers market. They are eager to trim prices, especially if these can be transmitted onto the vendor, provider or the employee. Within an unregulated or lightly regulated market, they are able, by avoiding to pay taxes, to transfer many costs onto the general society (ecology, natural environment etc.). With the rapidly expanding economic globalization Polish workers, producers or entrepreneurs cannot escape the feeling of being inequitably treated by its own government, but that point of view may not be, and usually is not, identical with the point of view of the national economic policy. It goes without saying that the full aspect of the inflow of foreign capital to Poland as presented using the Biedronka example is much more complex and complicated. It relates not only to the issues of social inequity and injustice, but also to the long-term national policy of economic growth, and therefore, the social perception and feeling of inequity and injustice among the Polish workers may linger on, irrespective of whether in employment by domestic or foreign employers.

Marcin Olkiewicz³⁷⁴, Benedykt Bober³⁷⁵

15. Foresight as a tool to identify key factors of the level of life quality

15.1. Introduction

Globalization and structural changes in Polish society are the priorities constituting a significant challenge for the institutional participants in the growth of pro-quality factors of the quality of life. Protecting the health of the European Union Member States is a social problem due to the general wish to increase the quality of life. Because of the Polish demographic situation,

³⁷⁴ Marcin Olkiewicz, Ph.D., Department of Management Faculty of Economic Sciences, Koszalin University of Technology, str. Kwiatkowskiego 6E, 75-343 Koszalin, Poland, tel.+0048 94 3439-116 fax +0048 94 3439-113, e-mail: marcin.olkiewicz@tu.koszalin.pl

³⁷⁵ Benedykt Bober Ph. D., e-mail: benedykt.bober@wp.pl

it is necessary to identify the key factors determining the increase in the quality of life.

In the undertaken research area, foresight tools are characterized with a significant usability. These studies are aimed at the evaluation of future needs, opportunities and threats associated with the increasing levels of the quality of life. They demonstrated their effectiveness in military strategic planning, therefore, they have been used in the socio-economic development planning, characterized by complexity and unpredictability. Management of the quality of life is one of the most significant areas. Due to its rich instruments, foresight can be an effective mechanism for the programming and identification of factors increasing the quality of life. It also allows discovering a consensus based on the confrontation of intentions with alternative scenarios, while at the same time designing adequate actions.

Evaluation of the impact of events on the development of the analysed phenomenon can help build scenarios that will condition the increase of the quality of life. The basis for an empirical process to identify the key factors of the quality of life was the research material gathered in the selected research on foresight³⁷⁶. It includes both the development of modern technologies in the field i.e. bioengineering and nanotechnology, as well as their surroundings. This not only limited the number of scenarios for development, but also accurately described them³⁷⁷. In the analysis process the available databases, literature studies and data from a panel of experts were also used.

Identification of problem areas and proposed solutions in this field can be a platform for understanding the interaction between technology and society³⁷⁸. Furthermore, also taken under consideration was a discussion in order to attempt to answer the question whether it is possible to accurately determine the potential directions of increasing the quality of life in the Polish reality.

³⁷⁶ National Foresight Programme Poland 2020; K.B. Matusiak, J. Kuciński, A. Gryzik (ed.), *Foresight of personnel of modern economy*, ed. PARP, Warsaw 2009; Safina K [ed.] *Foresight as a method of shaping the future. Identification of potential and resources of Lower Silesia in the field of science and technology to improve the quality of life*, Drukat, Katowice; J. Wojcicki, M.P. Ładyżyński (ed.), *Foresight Project Monitoring System and scenarios for the Development of Medical Technology in Poland*, CONSORTIUM ROTMED, Warsaw 2008.

³⁷⁷ A. Gajda, Experience and methods of expert data acquisition for tests using the foresight method, *The EU scientific and technical work Wroclaw*, no (185), 2011, p. 3.

³⁷⁸ J. Calof, J.E. Smith, Critical success factors for government-led foresight, *Science and Public Policy*, 2010, no 37(1), p. 36.

15.2. The quality of life

According to the definition by WHO, health has been seen not only as the absence of disease or infirmity, but as a physical, mental and social welfare. It is a Health Related Quality of Life (*HRQoL*), meaning the quality of life determined by the state of health, common diseases and the natural aging process. N.C. Dalkey and D.R. Rourke believe that: the quality of life consists of life satisfaction and happiness³⁷⁹. In contrast, C.J. Flanagan³⁸⁰ pointed out that a predetermined area of life may have different meanings for the subjects, and therefore to assess the level of satisfaction in various spheres of life, he proposed to use the index weight, allowing to assess how important the analysed spheres of life are for the said subject. He believed that the quality of life evaluated in this way, becomes more subjective.

The literature also allowed to distinguish certain fixed elements for the quality of life, such as objective, social and subjective factors. Objective factors usually reflect the material well-being, social factors are measured by means of social services and the available infrastructure, and in the framework of subjective factors – some ephemeral characteristic are shown i.e. psychological feelings of units, satisfaction, contentment and happiness³⁸¹.

A new approach to health problems, including recognition of the role of the subjective assessment of the state of health, was the starting point for a wider interest in the issues of the quality of life³⁸². Accordingly, there is a need to identify conditions and mechanisms for determining the quality of life with the foresight tools.

15.3. Genesis and essence of foresight

In the 1940s Ossip K. Flechtheim³⁸³ proposed a study on the future based i.e. on the theory of probability and a new field, uniquely interdisciplinary in nature, was given the name futurology. In the PWN (*Polish Scientific Publishers*) encyclopaedia it is stated that this is the activity of formulating projections (not giving a clear picture of the future) but a conscious shaping of the development directions.

³⁷⁹ N.C. Dalkey, D.L. Rourke, *The Delphi procedure and rating quality of life factors*. Univ. California LA 1972, pp. 32-41

³⁸⁰ J.C. Flanagan, Measurement of quality of life: current state of the art, *Arch. Phys. Med. Rehabil.*, no 63, 1982, pp. 56-59.

³⁸¹ Z. Kędzior, *Methodological aspects of quality of life survey*, US, PAN, Szczecin 2003, pp. 15-16.

³⁸² E.Papuć, Quality of life - definitions and ways of recognition, *Current Problems. Psych.*, 2011, no 12 (2), pp. 141-145.

³⁸³ M. Keßler, *Flechtheim Ossip Kurt*, Wyd. Böhlau-Verlag GmbH, 2007, pp. 34-40.

The consequence of the evolution of the futurology concept³⁸⁴ was the emergence of terms: futures studies, futurology, futuristics, futures thinking, futuring. The term foresight was used for the first time in 1932 when H.G. Wells established the "Departments and Professors of Foresight".

In recent decades, in response to increased demand for tools to identify possible changes in the environment, methods of searching for relevant information were developed, and activity based on obtaining information in an orderly manner in order to anticipate and adapt to the coming changes was called foresight³⁸⁵. The foresight process can be characterized by "5C's", meaning:

- communication – a platform for the exchange of views between scientists, businessmen and politicians,
- concentration on the distant future – systematized thinking about long-run processes,
- coordination – plans concerning the development of science and technology,
- consensus – an agreement reached concerning research priorities and development of technology,
- cooperation – the development of cooperation in the implementation of the results into the economy³⁸⁶.

In addition, the literature distinguishes between the regional and technological foresight as well as their combinations³⁸⁷. The regional foresight identifies the key trends determining social consensus and creates a network of cooperation among social actors. Technology foresight, on the other hand, is to identify important emerging technologies that are determinant factors to improve economic growth and the quality of society's life³⁸⁸.

Worth noting is J.F. Coates who was the first to use the term foresight in the strategic context, treating it as a process in which there is a full understanding of the forces shaping the distant future³⁸⁹ or B. Piasecki, who treats it as a

³⁸⁴ I. Miles, *From futures to foresight*, [in] Georghiou, L., Cassingena, J., Keenan, M., Miles, I. and Popper, R. (Eds), *The Handbook of Technology Foresight*, Edward Elgar, Aldershot, 2008 pp. 65-69.

³⁸⁵ T. Heger, R. Rohrbeck, *Strategic foresight for collaborative exploration of new business fields. Technological Forecasting and Social Change*, 2012, no 79 (5), pp. 49-54.

³⁸⁶ K. Burmeister, Neef A., Beyers B. (2004), *Corporate Foresight, Unternehmen gestalten Zukunft*, Murmann Verlag GmbH, Hamburg, pp. 53-56.

³⁸⁷ K. Czaplicka-Kolarz (ed.) *Scenarios of technological development of fuel-energy to ensure energy security of the country – part 2. Scenarios developed on the basis of Polish energy foresight for the years 2005-2030*, Central Mining Institute, Katowice, 2007, p. 13.

³⁸⁸ W.E. Halal, M.D. Kull, A. Leffmann, *Emerging Technologies. What's Ahead for 2001-2030, The Futurist*, 1997, Nov.-Dec., pp. 31-39.

³⁸⁹ K. Borodako, *The process of regional foresight in the field of sustainable tourism based on selected projects*, Rzeszow 2008, p. 591.

method of strategic development management of technology in a company, industry or region³⁹⁰. This allows to identify foresight as a process of:

- environment analysis,
- learning,
- creating a vision.

Foresight in the context of environmental analysis is to provide decision-makers with information about the environment, enhancing the organization's ability to react. It also enables preparation for future events. The main activity in this process is associated with the observation, analysis and evaluation of relevant new information. The learning process is to confront one's own (internal) business interpretation, strategies with different future scenarios as well as opportunities and threats. The result of the process of confrontation is the verification of existing patterns of thinking and the development of alternative scenarios. Foresight as a process of creating a vision is to come to an agreement with preferences and mobilizing stakeholders around a common purpose.

The primary objective of foresight is to design development scenarios in a relatively distant perspective, and in any case where it is not possible to extrapolate owned knowledge. It is a process of collective reflection on the long-term future, involving the active participation of its potential beneficiaries. The wider the active public participation, the greater the chances of creating a sense of joint ownership of the results and use them in practice of shaping the important factors for the level of quality of life. It also allows to indicate the directions of the future development and changes in the quality of life³⁹¹.

In these considerations it has been assumed that: *Foresight is a systematic, future-oriented way of continuous improvement of cross-environmental cooperation in order to build a common medium or long-term development vision, and in this context, making current decisions and mobilizing joint actions*³⁹². It can also be applied as a concept of stakeholders activities coordination for the direction of their common goals and interaction with the implemented policy³⁹³.

³⁹⁰ L. Woźniak, *Foresight for a sustainable development of the region on the example of the Podkarpackie province*, Rzeszow 2008, p. 623.

³⁹¹ S. Ma, M. Seid, Using foresight methods to anticipate future threats: the case of disease management, *Health Care Management Review*, 2006, vol. 31 No. 4, pp. 270-279.

³⁹² A. Lozano Platonoff, K. Gadomska-Lila, H. Pachciarek, *Comparison of methods for managing relationships in the environment of the organization*, Ed. Difin, Warsaw 2009, p. 209.

³⁹³ O. Da Costa, P. Warnke, C. Cagnin, F. Scapolo, The impact of foresight on policy-making: insights from the forlearn mutual learning process, *Technology Analysis & Strategic Management*, 2008, vol. 20, No. 3, pp. 373-376.

15.4. The level of the quality of life in the study of foresight

Policy guidelines for socio-economic development need the objectives and means of implementation to be defined. Study of the literature allowed to state that one of the most authoritative objectives are aims formulated in terms of the quality of life. It is assumed that there are no other reasons to mobilize the efforts of the society, exploitation of natural resources, creating barriers and legal restrictions of civil liberties than a long-term commitment to improving the conditions of human life.

The concept of the quality of life is not clearly understood. There are many definitions and concepts for determining the descriptive criteria³⁹⁴. The results obtained from the carried out research in the scope of foresight are to be understood in a way that certain trends in the development of a given discipline are the determinants of positive growth factors³⁹⁵ of the quality of life. Accepted criteria for assessing the quality of life include such factors as:

- objective, i.e. describing the social circumstances of life (measured by the accepted principles)
- subjective, i.e. associated with satisfying own needs, satisfaction, causing individual sense of satisfaction, happiness (by senses).

The former include the environmental conditions, the level of prosperity, cultural offer, the state security system, health care, leisure, equality. If one considers that the final measure of development, i.e. the given region is the increasing level of the quality of life of its residents, than it is measured with the data:

- objective, which is a set of sustainable development indicators. It sums up the effects of the efforts of the actors in the social, economic and environmental sphere,
- subjective - from surveys of local communities.

To evaluate the general conditions of quality of life, official statistics can also be used³⁹⁶. The results presented in the analysed reports (obtained from

³⁹⁴ T. Borys, P. Rogala, *Quality of life at the local level - shot indicator*, United Nations Programme (UNDP) in Poland, Warsaw 2008, p. 10.

³⁹⁵ D.P. Goldman, P.G. Shekelle, J. Bhattacharya, M. Hurd, , G.F. Joyce, D.N. Lakdawalla, D. Matsui, S. Newberry, C. Panis, B. Shang, *Health status and medical treatment of the future elderly*, Technical Report TR-169-CMS, RAND Corporation, 2004.

³⁹⁶ According to The Economist Intelligence Unit it might be the following parameters of quality of life and measures: Material situation - GDP per 1 person in USD, while maintaining the purchasing power parity. Health- life expectancy (in years). Political stability and safety - assessment of political stability and security. Family Life - divorce rate (per 1000 inhabitants). Community life - this variable is set to 1 if the country has a high rate of church attendance or membership in trade unions;

experts in particular fields) on foresight was also used in the process of developing scenarios for the increase of the quality of life.

The results obtained from the various tools included in the foresight, despite various forms, are based on a single data source, i.e. expertise and statistical data. Each (used by experts) allowed for the processing of the source data in a different ways, and to eventually give a varied point of view on the important factors affecting the quality of life. Foresight as a support for the decision-making processes, provides decision-makers with alternative development scenarios, the occurrence of which depends on the value adopted by the key factors (political, economic, socio-demographic and technological).

15.5. Discussion on the results and an attempt to develop scenarios for the quality of life

A precursor of a scenarios building method for strategic planning was C. Clausewitz and H. Moltke, who first described the principles of strategic planning³⁹⁷. The term *scenario* was introduced by Herman Kahn in the 50s. in relation to the aspects of public policy (scenarios are not intended to predict the future).

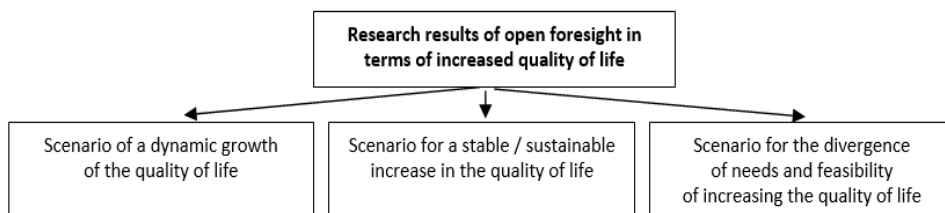
This method is similar to simulation studies and can be used by institutional actors to simulate the effects of the decision-making processes. Developed scenarios should be the basis of long-term strategic measures in the area of the quality of life (health care) and active economic and social policy of the state. They are also a tool of policy analysis, to facilitate the description of the possible sets of conditions for the future. Keeping the consistency and clarity of form, they focus on the most relevant issues.

The presented scenarios (Figure 15.1, Table 15.1-15.6) represent a logical and chronological sequence of events, assuming a given starting point, described by a set of key political, economic, socio-demographic and technological factors (taking into account i.e. globalization, economic reforms, knowledge-based economy and social acceptance).

otherwise zero. Climate and geography - latitude to distinguish between hot and cold climates. Security of employment - unemployment rate in %. Political freedom - average indicators of political freedom and civil rights. Gender equality - the proportion of average earnings of men and women.

³⁹⁷ Carl von Clausewitz, *Handbook strategist. Arcana of policy, command and logistics, which must be known by every manager*, Ed. Helion SA, Gliwice 2013, p. 29-41.

Figure 15.1
Scenarios of quality of life



Source: own elaboration.

Analysis of socio-demographic factors shows that: the labour market is not dynamic (increasing *brain drain*), the lack of flexible forms of employment, causing professional activity of society to grow slowly. On the other hand, an increase in the use of resources available under the Structural Funds is taking place.

Table 15.1
Assessment of key political factors (scale 1-5)

Sing.	Elements of evaluation	Points assessment
1.	The size of the market	4
2.	Economic growth rate	4
3.	Macroeconomic stability	4
4.	The level of taxation	3
5.	Job market	3
Average		3,6

Source: Own evaluation.

There is an increase of market capacity for new technologies, taking into account safety and environmental requirements shaping important factors determining the growth of the quality of life, while the systematic development of ICT infrastructure improves the societies ease of access to information services.

Table 15.2
Assessment of key economic factors (scale 1-5)

Sing.	Elements of evaluation	Points assessment
1.	Political stability	3
2.	The strength of institutions	3
3.	Attitude to foreign entities	4
4.	Stability of regulations	3
5.	Ability to call on the help of the state	4
Average		3,4

Source: Own evaluation.

Table 15.3
Assessment of key social factors (scale 1-5)

Sing.	Elements of evaluation	Points assessment
1.	The demographic situation	4
2.	Professional activity	2
3.	Differing incomes	3
4.	Education	3
5.	consumer awareness	3
Average		3,0

Source: Own evaluation.

Table 15.4
Assessment of key technological factors (scale 1-5)

Sing.	Elements of evaluation	Points assessment
1.	R & D expenditures	2
2.	Patents	1
3.	The development of the information society	3
4.	Inflow of new technologies	3
5.	Technical advancement	2
Average		2,2

Source: Own evaluation.

The introduction of new formal solutions and state support in the field of bio, techno, nano- and info technologies is taking place. In addition, knowledge and technology transfer to industry enforces the need to train staff with high qualifications (included in curricula).

Based on the consolidated foresight research results in Poland, taking into account the political, socio-economic and scientific-technical conditions (Table 15.1-15.5), the behaviour of the key variables determining the realization of the individual scenarios was defined, allowing to create a scenario:

- dynamic growth,
- stable / sustainable growth
- divergence of needs and opportunities.

The feeling of a distance between the perceived level of needs and aspirations, can generate various types of adaptation³⁹⁸ in the society. The presented scenarios existing in the area of the quality of life, indicate the chronological and logical effects (Table 15.6).

³⁹⁸ Subjective well-being and Social Policy (2010), Edited by Simon Chapple, European Commission Directorate-General for Employment, Social Affairs and Inclusion, <http://ec.europa.eu>; A. Szukielojć-Bierkuńska, T. Walczak, Statistical measurement of economic and social progress in a changing world, *News Statistical*, 2011, No. 7/8, pp. 37-44.

The biggest challenge is the implementation of the "dynamic growth". It requires complex changes not only in society and the economy but also in the process of the technical and technological implementation of innovations as well as in the educational process. An important factor in the growth of the staff quality is the knowledge of the ethical aspects as well as standards and certification based on the principles of good practice:

- Good Manufacturing Practice (GMP),
- Good Laboratory Practice (GLP),
- Good Clinical Practice (GCP).

The feature of the *Knowledge-based Economy* is to computerize and equip it with specialized software, determining the efficiency of processing and providing information to stakeholders about the indicators of a satisfactory quality of life (reducing the information asymmetry).

Table 15.5
Critical factors for the quality of life improvement

Sing.	Key measures for the quality of life	Selected elements subordinate to a given measure
1	Awareness	- public awareness in the area of diagnostic tests, - political conditions,
2.	Specialists human resources	- staff taking into account the requirements of the market,
3.	Distribution of funds	- optimization of healthcare spending, - co-financing of innovative therapies, - support for biotechnological research,
4.	Risk management	- sharing the risk of research on new services and products,
5.	Equipment necessary to conduct research and development	- possession of appropriate technologies, - lack of companies developing / promoting services products, - testing of chemical components, - certification,
6.	The quality of medical services	- prevention, - waiting time for treatment, - screening tests, - factors of public health,
7.	Life expectancy	- time of people with cardiovascular disease, - mortality among people undergone modern therapies, - increased lifespan, - prevention programs.

Source: Own evaluation

Part 2. EFFECTIVE MANAGEMENT IN ORGANIZATION

Table 15.6
Scenarios for the increase of society's quality of life

Sing.	Scenario	Characteristics
1.	Dynamic growth	<p>The increase in the number of prosumers suffering from civilization diseases is the result of an aging population and an increase in the detection result of the development of screening programmes. As well as the dynamic development of prevention programmes, promotion of healthy lifestyle as well as obstetric and neonatal care. The increase in expenditures on healthcare leads to increased demand for services and products in the field of modern medical technology. The high level of society's health consciousness is the determinant of the high level of acceptance for the implementation of technical and technological innovation, promoting the development of tele-health systems. The dynamic growth of investment in research and innovation in the area of medical technology, shapes the growth factors of society's quality of life. By financing costs of research and innovation, the state conducts an active pro-innovation policy encouraging investment and promoting cooperation between science and industry. Also the level of co-financing of R&D and innovation increased by the EU, leading to the growth of the Polish position in the field of i.e. biomedical engineering.</p>
2.	Stable / sustainable growth	<p>The aging population (due to the long-term trend), has moderate influence on the supply and demand for services and products in the field of modern medical technology. The increasing number of patients suffering from civilization diseases (chronic) is i.e. the result of the development of screening programmes. Increase prevention and the promotion of a healthy lifestyle contributes to the weakening of this trend. Moderate, steady growth of expenditure on health (exceeding the increase in the number of patients) determines a gradual increase in funding for research and development as well as innovation in the area of medical technology. The increase of society's health consciousness provides a high level of acceptance for the proposed solutions, and promotes the development of i.e. tele-care.</p>
3.	The divergence of needs and possibilities	<p>Progressive aging of the population, accompanied by an increase in the number of people suffering from chronic diseases, and others requiring continuous medical care result in a steady increase in the needs of services and products of modern medical technology. They are the result of deepening negligence in the field of prevention and promotion of healthy lifestyles. Lack of a process approach in screening programmes leads to late diagnosis of chronic diseases. The lack of inflow of EU funds aimed primarily at supporting the innovation process. There is a withdrawal of foreign capital, growth is ceased. Low public support for the necessary changes. Lack of in-depth educational and scientific reforms by institutions, an inefficient public finance system is not able to meet the real needs of society. This scenario clearly shows how important for the growth of society's quality of life is the transfer of technology and innovation in the economy. It also takes into account the situation in which there is a decrease in healthcare financing, accompanied by an increase in funding for research and innovative biomedical technology (and vice versa), assuming an increase in health funding with a decline in funding for research and innovative biomedical technologies.</p>

Source: Own evaluation.

In the presented scenarios open foresight was used, reflecting different levels of socio-economic development, the intensity of reforms and the acceptance of society. Some of these requirements are shared, variable is only the level of their fulfilment, depending on the scenario. However, some are associated with the various scenarios, which assume a certain model of economic development. This allowed to show the multidimensional quality of life and determinants affecting the growth of the stakeholders quality of life.

To sum up, the presented scenarios identifying the key growth factors of the quality of life, take into account both the social and technological perspectives. In addition, they indicate current and future pro-quality needs of society as well as technical and technological priorities enabling the reduction of existing inequalities.

15.6. Discussion

The process of environmental transformation is an important determinant of factors affecting the level of our quality of life in the analysed studies on foresight. Lack of knowledge about future trends means that it is not able to develop friendly, innovative structures, enabling the transfer of modern technology – the creation of a Knowledge-based society. This increases the need to anticipate and to think about the quality of life as a strategic resource. Such an approach can create an advantage by concentrating resources on the development areas.

Some authors state that the future cannot be grasped, understood, i.e. calculated and therefore there is a need for a different approach to predict the future, instead of reacting to it. C. Daheim, G. Office and von der Gracht³⁹⁹ defines this approach as contextual and open (open foresight), which takes into account the intensifying socio-cultural and socio-technical interactions, resulting from the interpenetration of various areas of life.

In this paper, opinions, possible stakeholder's activities as well as the use of different data sources⁴⁰⁰ in the identification of key factors of increasing the quality of life, were taken under consideration. In accordance to open foresight, significant social and institutional actors were selected, whose

³⁹⁹ C. Daheim, G. Uerz (2006), Corporate foresight in Europe: ready for the next step? <http://foresight.jrc.ec.europa.eu/documents/papers/Seville-gu-cd-Draft-8-2006-e.pdf> (stan na dzień 14.12.2015); Gracht von der H.A., Ch. Vennemann, I.L. Darkow, Corporate foresight and innovation management: A portfolio-approach in evaluating organizational development. *Futures*, 2010, no 42(4), pp. 51-54.

⁴⁰⁰ D.C.H. Burgess, J.Wasserman, C.A. Dahl, Global health diagnostics, *Nature*, 2006, Vol. 444, pp. 1-2.

interactions affect the quality of the produced scenarios⁴⁰¹ illustrating the increase in the quality of life. The main factors of uncertainty were also pointed out, which could be crucial to the direction of this area's development. Depending on the hypothetical development of these factors, various future scenarios are presented, of which the span of the adopted forecasts can be quite broad⁴⁰².

In addition, as stated by M. Keenan and R. Popper, shaping the beliefs concerning the possibility of creating a future and cooperation with social actors representing different interests and agreeing results⁴⁰³, can bring the desired increase in the level of the quality of life. Review of the literature and research on the quality of life shows that this term is associated with a positive attitude towards life, an active struggle with difficulties, the pursuit of important goals, positive balance of life experiences, sensations and a predominance of positive feelings over negative ones⁴⁰⁴.

In addition, the results of open foresight research pursuing assumed objectives (Table 15.7), inform decision-makers about new development trends, help to reach an agreement on development scenarios, harmonize the activities of social actors and provide assistance in establishing the criteria for the funding of projects which increase the level of the quality of life⁴⁰⁵.

Our country has considerable growth potential (however very dispersed). The presented scenarios for the increase of the quality of life show challenges facing decision-making institutional actors for the increase in the quality of life. Regardless of the extent to which the presented scenarios describing the important quality of life factors work out, changes in technical and technological systems related to health-related education and environmental protection (i.e. the reduction of harmful agents into the atmosphere) will be a crucial element for their growth.

⁴⁰¹ P. Bishop, A. Hines, T. Collins, The current state of scenario development: an overview of techniques, *Foresight*, 2007, Vol. 9 No. 1, pp. 5-25.

⁴⁰² K. Poradowska, M. Wójciak, Stimulants and barriers to the zero emission economic development in the views of the public, *Works and materials of the Faculty of Management at the University of Gdansk*, Volume 4/8, Gdańsk 2011, p. 12.

⁴⁰³ M. Keenan, R. Popper, *RIF (Research Infrastructures Foresight): Practical Guide for Integrating Foresight in Research Infrastructures Policy Formulation*, European Commission, Brussels 2007.

⁴⁰⁴ K. Biegańska, *Subjective and situational determinants of the quality of life of entrepreneurs*, unpublished PhD thesis, Łódź 2006.

⁴⁰⁵ S. Dentzer, The e-health connection: information and communications technology and the developing world, *Health Affairs*, 2008, Vol. 27, No. 6, pp. 1665-1670.

Table 15.7
Universal objectives of the foresight projects

Sing.	Hierarchy	Objectives
1.	Higher level objectives	- "Tackling the" challenges of <i>risk society</i> , - Broadening the <i>knowledge society</i>
2.	Middle level objectives	- Shaping a conscious society, - Coping with uncertainty, - Promoting active involvement in shaping the policies (participation) - Promoting growth based on innovation, - An increase in creativity, diffusion and absorption of knowledge
3.	Lower level objectives	- Alignment of stakeholders, - Facilitating cooperation, - Increase of the social capital level

Source: Own evaluation based on: Rogut A., Piasecki B., *Manual of the foresight project evaluator*, Warsaw 2011, p. 51.

To sum up, as rightly stated by R. Slaughter, politics and economics are mediated by a mercantile ideology, which distracts from what should be the ultimate objective of significant social and civilizational endeavours from educational⁴⁰⁶ projects to the culture of the quality of life. According to R. Scruton, it is the culture which inherits from religion the *knowledge of the heart*, conditioning the capacity for compassion⁴⁰⁷ and comprehension of qualitative (not technical) aspects of the increase in the quality of life.

In addition, the multidisciplinary nature of the foresight research means a broad stakeholders involvement, mutual learning, and on the basis of reliable and appropriate arguments, obtaining social acceptance for the realisation of the directions for increasing the quality of life. They are also the basis for strategic planning, development of thematic policies (i.e. quality of life) and development of *futures studies*⁴⁰⁸.

These features shape the new society (*Knowledge-based Society*) rooted in the pervasive electro-technical network. That is precisely why it is important to shape factors for the growth of the quality of life as well as to prepare the public for future economic and social challenges.

It seems essential to, above all else, change the mentality and the mindset of stakeholders - from the often intuitive consumption of services and

⁴⁰⁶ R.A. Slaughter, *Futures Education: catalyst for our times*, Pedagogies for Emergent Worlds, Sense Publishers, Rotterdam 2008, p. 62.

⁴⁰⁷ R. Scruton, *Culture is important. Faith and feeling in the cornered the world*, Ed. Profits S-ka Ed., Poznan 2010, p. 59.

⁴⁰⁸ *A Practical Guide to Regional Foresight, FOREN, Foresight for Regional Development Network*, European Communities 2001, p. 5.

products to independence, creativity and innovation in the process of the development of the important growth factors of the quality of life. Only then the rich factual material, collected in studies carried out by means of foresight tools, can be used.

Therefore, the qualification requirements of institutional actors will focus increasingly on core competencies that determine the projected activities and take responsibility for the results⁴⁰⁹. These changes show that there is an increased demand for essential core competencies at each stage of decision-making, including but not limited to analytical skills, time management and communication skills.

15.7. Summary

Based on the analysis of the implemented projects it can be stated that the tools in the foresight research area demonstrated their usefulness in the search for applicable information on the major satisfactory quality of life determinants of society. In addition, they are the support in the process of the exchange of information (reducing information asymmetry) between stakeholders. Thus, allowing to present recommendations which include:

- the development of new nanotechnology, biotechnology, and the use of their potential in shaping the quality of life,
- building awareness concerning the role of knowledge transfer and innovation, also shaping the innovative culture,
- management of innovative projects,
- project risk management,
- demography: changes in lifestyle can create an increase in demand for services and products in the field of bioengineering, nanotechnology, which determine the quality of life,
- reaching consensus concerning the image of the future and the shape of research policy (or at least checking whether such a consensus exists),
- they allow the creation of regulations introducing beneficial changes (i.e. Environmental Protection) in the activities of stakeholders, while increasing or maintaining the benefits of the State,
- economic conditions and the technical and technological solutions determining various forms of integration or the introduction of additional savings through the use of information technology to increase the quality of life.

⁴⁰⁹ S. Łobejko, *Knowledge management in the enterprise network*, Ed. PARP, Warsaw 2008, p. 58; Matusiak M. *Knowledge-based Economy*, ed. PARP, Warsaw 2008, p. 33.

The evaluation of the quality of life can be an indicator of the populations health and be used to assess the effectiveness and benefits of specific health programmes. This information can help in choosing the best possible alternatives and to optimize the financial resource management⁴¹⁰.

The results of the analyses of conducted foresight research serve both the implementation of an innovative, scientific and technical policy and are a tool for shaping a pro-quality population and a method of thinking about the quality of life. In addition, they also indicate the sectors and activities, which should focus, inter alia, on financial assistance from the state budget.

To sum up, institutional actors perceive qualitative life factors of society, but their point of view highlights the obstacles encountered in the implementation process. The increase in the quality of public health will allow to avoid measurable human and capital losses and will also generate the prosperity of the state⁴¹¹.

Ian Hipkin⁴¹²

16. Pipelines, platforms and high performance organisations

16.1. Introduction

In an effort to boost the debate on strategic success over the last ten years, a number of authors have popularised various proposed strategic initiatives. In 2005 Kim and Mauborgne published what was to become their widely selling book entitled *Blue Ocean*. This offered a means to escape from the widely-accepted 'competitive advantage' notion of strategy. Advocates of *Blue Ocean* strategy sought to dissuade organisations from using the competition as their benchmark, exhorting them to render the competition irrelevant by opening new and uncontested market space⁴¹³. Industry boundaries that are well defined and accepted should be replaced by moving

⁴¹⁰ R. Jaeschke, Evidence based medicine (EBM), a medical practice based on reliable and timely publications (POWAP). Episode 8: Defining and measuring quality of life related with health. *Practical Medicine*, 1999, no 4, pp. 155-162.

⁴¹¹ M. Suhrcke, M. Mckee, R. Sauto Arce, S. Tsoлова, J. Mortensen, The contribution of health ton the economy in the European Union. European Communities, Health and Consumer Protection DG, 2005, pp. 7-14.

⁴¹² Ph.D., Ecole Supérieure de Commerce de Pau, France, e-mail: I.B.Hipkin@exeter.ac.uk

⁴¹³ Kim, W.C and Mauborgne, R., 2005. *Blue Ocean Strategy*, Harvard Business Press.

into products, services and industries that are not yet in existence. This approach relied on innovation: original products and services in new industries, and characterised by outstanding performance.

De Waal⁴¹⁴ speaks of 'an age of extreme competition in which the combined forces of global competition, technology, interconnectivity, and economic liberalisation make life for companies even tougher than before'. In discussing the trends and developments that are fundamentally changing the world, De Waal identified characteristics in the domain of high performance that would best lead to outstanding results⁴¹⁵. These included faster adaptation to global demands for what is known as the five generic (performance) factors: quality, dependability, flexibility, speed and cost⁴¹⁶. De Waal added development cycle time and after-sales support, as well as stressing the ability of an organisation to reshape itself, with the interests of citizens central to the way the organisation operates⁴¹⁷.

The April 2016 edition of the *Harvard Business Review* contains a number of articles promoting the idea of 'platforms' taking over from 'pipelines'^{418, 419}. These authors use the term pipeline businesses to describe organisations that control their activities (inputs at the supply end of the chain are transformed into output that reflects the value added in the process: the widely-used value-chain). The notion of a 'platform' is one where an enterprise brings together suppliers and customers in valuable commercial exchanges. This has been facilitated by information technology. Van Alstyne et al. give the example of Apple's handset business: this was fundamentally a pipeline, but was profoundly enhanced and developed by the arrival of the App Store, which connected app developers to iPhone customers⁴²⁰.

The purpose of this paper is to bring together such strategic developments in an attempt to analyse the functioning of organisations seeking high performance in the context of new strategic ideas and platforms.

⁴¹⁴ De Waal A., 2007, *Strategic performance management*, New York, Palgrave MacMillan, p. 5.

⁴¹⁵ De Waal A., 2012, *What makes a high performance organisation*, Cranbrook, Global professional publishing.

⁴¹⁶ White G.P., 1996, *A survey and taxonomy of strategy-related performance measures for manufacturing*, International Journal of Operations & Production Management, vol. 16, no. 3, pp. 42-61.

⁴¹⁷ De Waal A., 2012, *What makes a high performance organisation*, Cranbrook, Global professional publishing.

⁴¹⁸ Alstyne van M.W., Parker G.G. and Choudary S.P. 2016. *Pipelines, platforms, and the new rules of strategy*, Harvard Business Review.

⁴¹⁹ Zhu F., Furr N., 2016, *Products to Platforms: Making the Leap*, Harvard Business Review, April.

⁴²⁰ Alstyne van M.W., Parker G.G. and Choudary S.P. 2016, op. cit.

16.2. Common approaches to strategy

It is not the intention of this paper to provide a critique of strategy theories, but it is useful to refer to some comments thereon. D'Aveni bemoaned the dire state of strategic thinking and implementation with his contention that as strategy 'blossomed', the competitiveness of western companies has withered⁴²¹. He points to the fact that theories of strategic management have focussed attention on strategic decisions, but questions whether they have indeed enabled managers to improve performance: strategy implementation has been neglected.

A mainstay of strategy theory has been Porter's five forces has criticised the industry basis of this approach, particularly in that industry is presented as stable and externally determined with clearly defined boundaries⁴²². He questions whether the industry structure drives intensity of competition, which in turn governs levels of industry profitability. He further notes that this is not a linear process that leaves the industry structure unchanged, and questions the availability of empirical evidence as the basis for the belief in the importance of the industry environment as a determinant of profitability. The static nature of the five forces model reflects its lack of dynamism, particularly in relation to fast changing and hyper- industries.

Jidd et al.⁴²³ recognise the focus of the five forces on markets and competitors, but add a number of key criticisms: the model fails to take adequate account of the magnitude of the effects of technological changes; it overestimates managers' abilities to respond to and control external events; and it is less useful in a highly dynamic environment. The five forces model reflects the era in which it was first popularised, where strategy was essentially deliberate, rather than emergent. The model depicts the adversarial nature in the 1980s of buyer/ supplier relationships with stable industry boundaries. The issue of strategic alliances and partnerships is ignored.

A central feature of the resource-based view (RBV) of strategy is that a firm's competitive advantage comes from the possession of valuable, rare, inimitable, and non-substitutable capabilities⁴²⁴. Martin comments that the RBV appeals to senior managers because they see strategy as a process of identifying and creating core competencies and strategic capabilities⁴²⁵. The attraction is that managers see this as a procedure which they believe they

⁴²¹ D'Aveni R.A. 1994. *Hypercompetition*, New York, The Free Press.

⁴²² Grant, R.M., 2007. *Contemporary strategy analysis*, London: Wiley.

⁴²³ Jidd, K., 2001. *Criticisms of the five forces model*, Working paper series 2001/4, University of Bath.

⁴²⁴ Barney, J.B. and Hesterly, W.S., 2006. *Strategic management and competitive advantage*, Harlow: Pearson/Prentice Hall.

⁴²⁵ Martin R.L. 2014. *The big lie of strategic planning*, Harvard Business Review, January-February.

can control and for which they are entitled to claim success. Martin claims that in following this mechanistic approach a firm is indulging in strategic planning and not creating strategy.

While there is always a need to upgrade resources by moving beyond what the firm is good at, by organic development or acquisition, Collis and Montgomery have criticised the RBV because of the challenge in objectively identifying and evaluating resources⁴²⁶. They speak of core competencies that have become mere 'feel good' factors, whereafter the process turns out to be an exercise that no one fails. The challenge is seen in the difficulty in benchmarking inimitability and sustainability effectively, or being able to value intangible resources. De Wit and Meyer believe that in using the RBV as the basis of strategy formulation, 'we suffer from a form of lock-in, caused by large investments already made, based on an acknowledged standard⁴²⁷. It is striking that the character of many products has not significantly changed since the founding of the field'. The fundamental challenge is then to determine whether resources can be acquired to fill the gap between existing resources and those required by the strategy.

The debate on the generic performance objectives centres on competitive capabilities relative to competitors, with most attention being paid to quality, delivery, flexibility, and cost. The literature pertaining to competitive capabilities directs greater attention, not on what capabilities should be emphasised, but rather on the sequence in which capabilities should be pursued. This leads to the 'sandcone' model of Ferdows and De Meyer... *different generic capabilities have been cumulative and not the result of compromises and tradeoffs*⁴²⁸. This advocates that managers should cumulatively address quality elements, followed by delivery and flexibility, thereby ultimately dealing with many cost issues⁴²⁹.

Lorange and Rembiszewski have proposed reasons for the disappearance or decline of fast moving consumer goods (FMCG) companies⁴³⁰. Despite their global presence, formidable financial resources and unprecedented world access: ... *they did not see how radically the twenty-first century consumer has changed. The e-revolution has not only brought*

⁴²⁶ Collis D., Montgomery C.A., 1995. *Competing on Resources: Strategy in the 1990s*, Harvard Business Review, Vol. 73 (July-August), pp. 118-128.

⁴²⁷ Wit B. and Meyer R. *Strategic innovativeness*, London: Thomson, p. 121.

⁴²⁸ Ferdows K., De Meyer A., 1990, *Lasting improvements in manufacturing performance: in search of a new theory*, Journal of Operations Management, Vol 9, No 2, p. 169.

⁴²⁹ Rosenzweig E.D., Easton G.S. 2010. *Tradeoffs in manufacturing? A meta-analysis and critique of the literature*, Production and Operations Management, Vol. 19 No. 2, pp. 127-141.

⁴³⁰ Lorange P., Rembiszewski J., 2014, *From Great to gone: why FMCG companies are losing the race for customers*, Gower: Farnham, pp. 1-2.

changes in the communication landscape but, more importantly, a new consumer who requires a total transformation of the current business model. The relatively simple brand strategies of the twentieth century, basically following the proven P&G approach together with a route to market built nearly 100 years ago, have become outdated ... one of the key learnings is that P&G, Nestlé, Colgate and Unilever must regard Google, Apple and Facebook as competition for the daily consumer spend.

16.3. Has strategy moved on?

'Yesterday's success is today's enemy and tomorrow's killer... arrogance and hubris are the silent killers of business'⁴³¹. With such statements, these authors warn that even thriving firms face misfortune or failure if they insist on operating as they have over the years. Some 50% of the companies cited by Peters and Waterman in *In search of excellence* no longer exist. De Wit and Meyer recognise the need for moving the strategy debate to another level, to a 'new' way⁴³². The test is whether the firm can be sufficiently flexible to move from meeting one set of market demand criteria to another. This may well call for an unrelated set of competencies, which have quite possibly never been developed. Kotter and Cohen maintain that businesses no longer create value by owning strategic resources, as was the case with the RBV, but by attracting the right resources at the right time⁴³³. That in itself demands an innovative process.

It seems clear that innovation demands a significant departure from the well-known 'core rigidities' exposed by Leonard-Barton, but these core rigidities still linger as firms follow restrained improvements through incremental innovation⁴³⁴. Foerster and Kreuz warn against being a guarded follower who claims that customers want products similar to existing offerings, but of better quality: how sustainable will such measures be in turbulent times⁴³⁵?

Strategy implementation and evaluation have received less attention in the literature than environmental analysis and resource assessment. Johnson et al. proposed three factors for strategy evaluation: suitability, acceptability

⁴³¹ Foerster A. and Kreuz, P. 2009. *Anything but ordinary: a crash course in lateral business thinking*, Marshall Cavendish Business: London, p. 3.

⁴³² Wit B. and Meyer R. *Strategic innovativeness*, London: Thomson, pp. 373-383.

⁴³³ Kotter J.P., Cohen, D.S., 2002, *The heart of change*, Harvard Business Press.

⁴³⁴ Leonard-Barton D., 1992, *Core capabilities and core rigidities: a paradox in managing new product development*, *Strategic Management Journal*, vol 13, pp. 111-125.

⁴³⁵ Foerster A. and Kreuz, P. 2009. *Anything but ordinary: a crash course in lateral business thinking*, Marshall Cavendish Business: London.

and feasibility⁴³⁶. These contain an element of quantification of strategy in terms of return on investment, payback period, profits, growth, EPS, cash flow, price/earnings and market capitalisation. These are quantitative measures that point to the need for a management control and information system that monitors the effective and efficient use of resources⁴³⁷: performance measurement should support management decision-making. Firms that perform well are beacons of excellence, known as high performance organisations, which may be defined as⁴³⁸: *A high performance organisation is one that achieves financial and non-financial results that are exceedingly better than those of its peer group over a period of five years or more, by focusing in a disciplined way on that what really matters to the organisation* .

The five factors identified by De Waal for describing an HPO are: management quality, openness and action orientation, long term orientation, continuous improvement and renewal, and employee quality. The time period of 5 years can be questioned as mergers, acquisitions, take-overs and alliances dominate fast moving technology-based companies. Using the tourism sector as an example, in the context of HPOs, it is necessary to assess the extent to which firms manage and are able to quantify the effects of their strategy implementation on factors such as: the impact on tourism of increasing affluence in the developed world; how technology dominates the economy and society, with particular reference to tourism; the consequence of the population in developed countries living longer; how tourism is adapting to the fact that time is becoming the world's most precious commodity; the influence of changing values and lifestyles; the interest in life-long learning; concern for the environment; customisation of products and processes to meet customer needs; and, the importance of service (in part replacing location is a key success factor)⁴³⁹.

Fletcher et al. highlight the need for addressing the gaps that exist between provider and customer⁴⁴⁰. These relate closely to the HPO factors identified by De Waal: the gap between consumer expectation and management perception; the gap between management perception and service quality specification; the gap between management perception and service delivery; the

⁴³⁶ Johnson G., Scholes, K., Whittington R., 2014, *Exploring Corporate Strategy*, London: Prentice Hall.

⁴³⁷ Zairi M., Jarrar Y., 2000, *Becoming world class through a culture of measurement*. In Neely, A. (ed.) *Performance measurement: past, present and future*, Cranfield, Centre for Business Performance.

⁴³⁸ De Waal A., 2012, *What makes a high performance organisation*, Cranbrook, Global professional publishing, p. 5.

⁴³⁹ Lockwood A., Medlik S., 2013, *Tourism and hospitality in the 21st century*, Oxford, Butterworth-Heinemann.

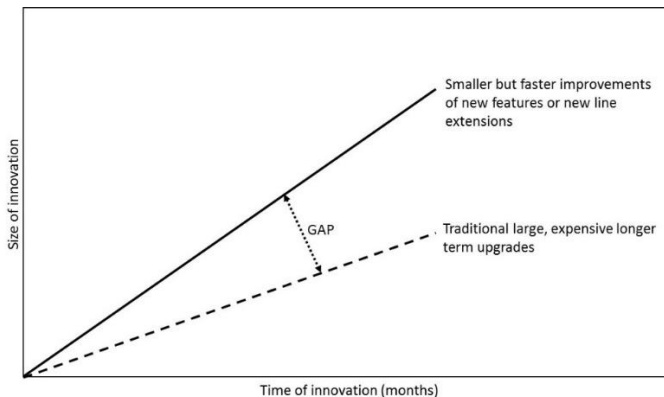
⁴⁴⁰ Fletcher J., Fyall, A., Gilbert, D. and Wanhill, S. 2013. *Tourism principles and practices*, Harlow, Pearson.

gap between service delivery and external communications; and, the gap between perceived service and delivered service.

Such gaps may be manifested as a series of innovation gaps, which may arise through reliance on existing strong brands which effectively shut out and preclude innovation. Frequently, firms with such powerful brands remain embedded in the past and are only awakened (often too late) by competitive variations and products. The successful new leaders have recognised the intensely cynical view of today's consumers who no longer accept a marketing story with limited substance behind it. Social media provide instant exchanges, which represent the true means of communicating a product or service: it is a matter of connecting with consumers. While long product cycles are understandable in sectors with substantial R&D and technology investments, many consumer product producers cannot indulge in the luxury of long investment cycles. Just as the Japanese invested massive sums in the 1970s and 1908s on reducing set-up times in their operations, so today firms are obliged to minimise investment cycles and lower dramatically the costs thereof.

Lorange and Rembiszewski see the challenge as one where companies must move 'more and more into value proposition, offering high-quality, lower-priced products, creating huge margin pressure from a high cost base, to compete against companies with a very low cost base'⁴⁴¹. This is the innovation gap challenge, which may be illustrated (adapted from Lorange and Rembiszewski) as shown in Figure 16.1.

Figure 16.1
The innovation gap

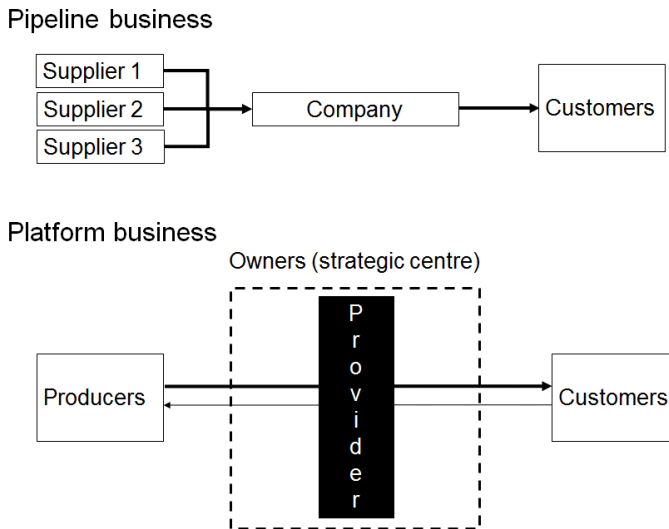


⁴⁴¹ Lorange P., Rembiszewski J., 2014, *From Great to gone: why FMCG companies are losing the race for customers*, Gower: Farnham, p. 58.

16.4. Platforms

A platform business brings together producers and consumers by means of a ‘critical asset’, thereby creating a community of the resources of its members. Van Alstyne et al. identify a shift in the focus of strategy from ‘controlling to orchestrating resources, from optimizing internal processes to facilitating external interactions, and from increasing customer value to maximizing ecosystem value’⁴⁴². The authors present a platform as an ecosystem consisting of four components: (1) owners that control the intellectual property and governance of the venture (the strategic centre), (2) providers that operate as an interface with users, (3) producers who generate and fashion the ‘product’ or ‘service’, and (4) consumers (customers). Pipeline and platform models are shown in Figure 16.2.

Figure 16.2
Pipeline and platform models



Although a good product is not a sufficient condition for a successful platform, Zhu and Furr demonstrate that one way to succeed is to build on a good product and a critical mass of users. A platform will not revitalise a product that was failing as a pipeline venture and that managers believe can be miraculously converted into a platform. A progression from a successful pipeline provides a sound basis for a winning platform, Zhu and Furr explain:

⁴⁴² Alstyne van M.W., Parker G.G. and Choudary S.P. 2016. *Pipelines, platforms, and the new rules of strategy*, Harvard Business Review, p. 57.

‘A hybrid of the two business models is valuable in part because during the product-to-platform transition, although customers start to derive benefits from the use of third-party products, a firm’s own products often remain the primary attraction’⁴⁴³. Flourishing platforms will invite competition, so the originating company will be obliged to take a number of strategic and operational decisions. These particularly relate to which part of their operation should remain under their direct control.

This may be construed as akin to outsourcing decisions, which have long been part of the strategy of pipeline firms where command is retained over ‘distinctive competencies’, and barriers are erected to deter new market entrants. However, the platform concept is not a return to ‘traditional’ strategy. An essential difference between pipeline and platform strategies is that the strategic centre⁴⁴⁴ now orchestrates an entire network of activities and partners. Demand-side economics play an essential role in platforms: the greater the number of producers and consumers, the more robust the venture. This can only be achieved with innovative use of technology. While the platform technology itself may not necessarily play a crucial role in the operation, platforms are only possible as a result of the processing abilities and speed of the platform orchestration process.

An example of the need for a high technology platform is in digital advertising. While newspaper advertising represented over 35% of all advertising spending in 2000, it has declined to 10%. Digital advertising was in its infancy in 2000, but now represents 45% of all advertising spending (The Economist, 2016). Advertisers bid for space on a webpage that a consumer has just clicked on. An auction is held and the ‘winning ad’ is transmitted, within milliseconds. Businesses such as GroupM buy advertising slots and function as platforms. The main assets of platforms are the interactions that occur within the platform and the information processed. The combination of these constitutes the source of value of the platform.

In the tourism sector, many of the gaps identified by Fletcher et al (2013) can be filled by platforms⁴⁴⁵. The relevance of the HPO concept in a discussion of platforms is that technology enables performance to be measured precisely, as every activity passes through the platform, and constitutes the basis for the interaction. This is not measurement for the sake of measurement, but measurement as a determinant of the revenue of the platform itself.

⁴⁴³ Zhu F., Furr N., 2016, *Products to Platforms: Making the Leap*, Harvard Business Review, April, p. 75.

⁴⁴⁴ Lorenzoni G., Baden-Fuller C., 2005, *Creating a strategic center to manage a web of partners*, in De Wit B. and Meyer R. *Strategic innovativeness*, London: Thomson, pp. 373-383.

⁴⁴⁵ Fletcher J., Fyall, A., Gilbert, D. and Wanhill, S. 2013. *Tourism principles and practices*, Harlow, Pearson.

Platforms abound. They exist where intermediaries link a number of identifiable groups of users, and facilitate and make possible interaction between them. Frequently quoted examples are smartphone apps, but platforms extend beyond this. While a travel agent used to be an integral part of a pipeline, today the accessibility of technology has expanded platform applications. Airbnb is a well-known example, as are Uber and minicabit.

There is a fine line between differentiating between some pipelines and platforms, and the strategic move is not always from pipeline to platform. Retailers (operating as pipeline businesses) are reporting declining earnings and profits, and discount fashion chains are appearing (such as Nordstrom Rack and Macy's Backstage). These moves are to counter disruptors such as Amazon and TJ Marxx. A host of reasons explains Amazon's success: because Jeff Bezos has an 18% shareholding, Amazon's shareholder expectations differ substantially from traditional retailers; Amazon has established a formidable distribution capability; on-line retailing through Amazon Prime, with its 'free' same-day delivery counters the inability of on-line shopping to provide immediate gratification; Amazon Pantry is competing directly with supermarkets.

It is interesting that Amazon, in these instances, is moving from a platform to a pipeline business. Wal-Mart's response with competitive pricing and refurbished stores remains at the pipeline level. Competition is intensifying with organisations such as Dash, a platform operation whereby basic household goods (such as soaps, toilet paper and detergents) are reordered at the touch of a wi-fi button. The result is the desire of all retailers: a locked-in customer. In general terms, Lorange and Rembiszewski remark that the winners are those that can deliver new consumer product and services quickly and flexibly⁴⁴⁶. These may be termed fast innovating consumer goods companies.

McGrath contends that successful firms have reconfigured, exited exhausted opportunities and embarked on new sectors, products and services. The end result is stability (or as much stability as can be expected in the current business environment) and dynamism. Driving these developments is innovation, with which McGrath includes

... proficiency at managing each aspect of the innovation system ... a governance system, and systems for ideation, for discovery and assumption testing, for market validation and incubation, and for commercialization and incorporation of the new businesses into their on-going operations⁴⁴⁷.

⁴⁴⁶ Lorange P., Rembiszewski J., 2014, *From Great to gone: why FMCG companies are losing the race for customers*, Gower: Farnham.

⁴⁴⁷ McGrath R.G., 2013, *The end of competitive advantage: how to keep your strategy moving as fast as your business*, Boston: Harvard Business Review Press, p. 213.

The term 'ideation' originally suggested the recognition of a pipeline that would be the conduit through which innovative ideas would pass. Of course, this would now include platforms. McGrath (2013) emphasises that innovation needs to be guided in a particular direction that is aligned with strategy; innovation will fail if it is reduced to a creativity-seeking exercise. This requires the identification of determining what customers are truly looking for (even if, from a customers' point of view, they are not certain what this is, and so this need has yet to be formally articulated) and working backwards to ascertain how this can be accommodated. This may be deemed as the inverse of the resource-based view.

16.5. Conclusion

Pipelines suffer from increasing complexity, particularly in relation to control of the supply chain. The 'electronic fitting' concept (whereby an article of clothing, say, in a store is measured, or specified on line; an order is despatched to the manufacturer and a bespoke item is made) both adds to this complexity and provides part of the solution. Internal barriers are frequently cultural: they are part of the way in which things have always been done. Economies of scale have been such a dominant part of strategy that the notion of ordering a once-off is counter to the fabric of a traditional firm's *modus operandi*. Management interventions, such as Total Quality Management, Six Sigma and a host of measurement techniques have been, and continue to be, offered as all-embracing solutions. This perpetuation of thinking aggravates the challenges of companies steeped in the attitudes of late twentieth century business models. The notion of a high performance organisation as one achieving exceptional financial and non-financial results through its disciplined way of operating is only relevant if it moves beyond measurement to identifying the truly fresh and innovative ways in which it accomplishes its success.

Platforms are not for everyone, and there will still be many products where the pipeline continues to be applicable. However, it will be perilous for a business to deny the possibility that its traditional pipeline could become a platform venture, particularly as 'industry' boundaries are fluid, pliable and highly adaptive. Indeed, the notion of 'industry' is rapidly losing its meaning. Van Alstyne et al. (claim, without justification beyond anecdotal evidence, that 'when a platform enters the market of a pure pipeline business, the platform virtually always wins'⁴⁴⁸).

⁴⁴⁸ Alstyne van M.W., Parker G.G. and Choudary S.P. 2016. *Pipelines, platforms, and the new rules of strategy*, Harvard Business Review, p. 57.

Van Alstyne et al. provide a warning to those who ignore the possibilities offered by platforms: 'The failure of transition to a new approach explains the precarious situation that traditional businesses – from hotels to health care providers to taxis – find themselves in. For pipeline firms, the writing is on the wall: Learn the new rules of strategy for a platform world, or begin planning your exit'⁴⁴⁹. The implications for strategy are that the 'traditional' strategy models and the pipeline approach no longer prepare organisations of the future, thereby enabling them to demonstrate their hunger for change, and their obsession with providing services beyond customer imagination.

Alexandra Zbucnea⁴⁵⁰

17. The conundrum of cause-related marketing

17.1. Introduction

Increasingly more academics, practitioners and society discuss the role of business in society. On one hand, companies are accused of selfishness, of inducing all sorts of problems in society, of unfair relationships with third parties. On the other hand, companies are credited with being more responsible, of being concerned and active for a better common good, of creating social value for communities. The assumed role of business in society seems to be changing⁴⁵¹. Companies appear to be more and more interested in being responsible. Corporate social responsibility seems to have become the norm. These changes are related to the evolutions in the business environment, as well as in the society, which are required and imposed by all types of stakeholders⁴⁵². Consumers worldwide prefer companies that are

⁴⁴⁹ Alstyne van M.W., Parker G.G. and Choudary S.P. 2016. *Pipelines...*, op. cit., p. 62.

⁴⁵⁰ Associate Professor, PhD, Faculty of Management, National University of Political Studies and Public Administration (SNSPA), Bucharest, Romania.

⁴⁵¹ Miller R.A., *Lifesizing Entrepreneurship: Lonergan, Bias and the Role of Business in Society*, Journal of Business Ethics, 58, 2005, 219-225.

⁴⁵² Warhurst A., *Future roles of business in society: the expanding boundaries of corporate responsibility and a compelling case for partnership*, Futures, 37, 2005, 151-168.

responsible, therefore being responsible is not only a matter of compliance with the trends in society, but is also business-wise⁴⁵³.

The Edelman Trust Barometer shows a continuous increase of trust in business for both the informed public and the general population⁴⁵⁴. Between 2012 and 2016, the barometer registers an increase of trust in all four actors: NGOs, Business, Media and Government. Among these, the most significant increase registered the trust in Business. The informed public is even more confident in businesses, the trust climbing from 54% to 63%. Only NGOs benefit from a larger trust capital, but not significantly higher (of 67% among the informed public and 55% among the general population vs. 63% and 53%). The level of trust is unevenly distributed geographically. Eastern Europe seems to be a distrust zone. In Poland and Russia, the trust index is 45% for the informed public and 42% for general population⁴⁵⁵. The public does not see any more a discrepancy in businesses pursuing both economic benefits and social goals. 80% agree that: "A company can take specific actions that both increase profits and improve the economic and social conditions in the community where it operates"⁴⁵⁶. The figure increased in 2016 from 74% the previous year.

Therefore, the climate is beneficial for companies involved in social causes and they could gain competitive advantage from such an approach. In a society that increasingly valorizes the social impact of businesses, cause-related marketing (CRM) should be an effective tool in stimulating both sales and a good image. The present chapter investigates the academic landscape of CRM in order to identify its characteristics and drives.

17.2. The academic background of cause-related marketing (CRM)

Interest in cause-related marketing is increasing. A federated search of most popular databases and publishers (Web of Science, Science Direct, Researcher ID, ProQuest, Oxford, Sage, Springer, Taylor & Francis, Elsevier and Wiley) identified around 230 scholarly articles in the fields of business and economics having CRM either in the title or among the subject terms. The first articles date back to 1988⁴⁵⁷. The interest is from the beginning both strategic

⁴⁵³ Zbucnea A., *Are Customers Rewarding Responsible Businesses? An Overview of the Theory and Research in the Field of CSR*, Management Dynamics in the Knowledge Economy, 1(3), 2013, 367-385.

⁴⁵⁴ Edelman Trust Barometer 2016. *Global Report*, p. 7, available online at <http://www.edelman.com/insights/intellectual-property/2016-edelman-trust-barometer/global-results>

⁴⁵⁵ Ibidem, pp. 8-9.

⁴⁵⁶ Ibidem, p. 28.

⁴⁵⁷ Varadarajan P.R., and Menon A. *Cause-related marketing: A coalignment of marketing strategy and corporate philanthropy*. Journal of Marketing, 52(3), 1988, 58-74; Gross L., *Cause-related marketing concept spreads to ATMs in the south*. American Banker, 153(136), 1988, 7.

and tactical, investigating the strategic/business value of CRM, as well as how to make the CRM campaign effective or to better understand success stories⁴⁵⁸. Only a few articles are mainly concerned with ethical issues, even if this marketing technique, in itself, contains some ethical dilemmas⁴⁵⁹.

Table 17.1 presents the steep increase of interest in investigating cause-related marketing in the last few years. Adrian Sargeant⁴⁶⁰ observed in the beginning of the 2000s the need for more research and the increased relevance of the topic, ideas that seem to have stimulated further research.

Table 17.1
Evolution of the academic interest in CRM

	1980s	1990s	2000s	2010s
No. of scholarly articles	2	16	90	122

A previous literature review on cause-related marketing focused on the two types of organizations involved (companies and NGOs) and the relationships that connect them, highlighting that the consumers answer favourably when there is a match between the two partners⁴⁶¹. Another review⁴⁶² highlighted three main directions of research in the field: conceptual development/clarifications, investigations of the responses of customers to CRM, and the analysis of the rewards and risks associated to these partnerships. The most recent literature review⁴⁶³ shows that CRM is considered a strategic tool since the most frequent terms used in the reference corpus are brand, stakeholder and consumer. The tactic importance of CRM, as well as the interest in practical aspects is connected with the following concepts: donation, price, environment, fit, motivation, attitude, purchase, and employee. The most popular topics investigated are brand-cause fit, ethical aspects, corporate and social identification, as well as skepticism⁴⁶⁴.

⁴⁵⁸ Barnes N.G., and Fitzgibbons D.A. *Business-charity links: Is cause related marketing in your future?* Business Forum, 16(4), 1991, 20.

⁴⁵⁹ Soni S., and Soni A. *Cause related marketing: An ethical quandary or an altruistic charity.* International Journal of Business Ethics in Developing Economies, 3(2), 2014, 7-15.

⁴⁶⁰ Sargeant A., *Social and cause-related marketing: The growth of a discipline?* Journal of Nonprofit & Public Sector Marketing, 9(4), 2002, xiii-xv.

⁴⁶¹ Wymer W. and Sargeant A., *Insights from a review of the literature in cause-related marketing,* International Review on Public and Non Profit Marketing, 3(1), 2006, 9-21.

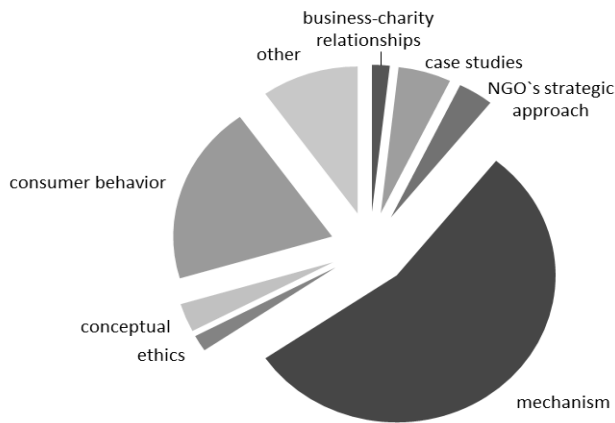
⁴⁶² Gupta S. and Pirsch J., *A Taxonomy of Cause-Related Marketing Research: Current Findings and Future Research Directions,* Journal of Nonprofit & Public Sector Marketing, 15(1/2), 2006, 25-43.

⁴⁶³ Guerreiro J., Rita, P., and Trigueiros D., *A text mining-based review of cause-related marketing literature.* Journal of Business Ethics, 2015, 1-18.

⁴⁶⁴ Guerreiro J., Rita, P., and Trigueiros D., op. cit.

We investigated more than 200 academic articles published in top journals in order to observe what the main interests in the field of CRM are. For each article identified, we noted only the main direction of the research. Two topics dominated: the mechanism of CRM and consumer behaviour, as figure 17.1 shows. This means that the academic interest is mainly a practical one, aiming to understand better the concept and to offer a knowledge framework to develop effective CRM campaigns. The focus of the research is well set out on businesses and consumers, not on the nonprofit organizations involved or on the impact on society.

Figure 17.1
The main academic interests related to CRM



17.3. Mechanisms contributing to the success of CRM strategies

American Express coined the concept of cause related marketing, through its successful campaign of raising funds to restore the Statue of Liberty in 1983⁴⁶⁵. Nevertheless, older examples of CRM campaigns are documented; some of the most famous were developed in the 1970s by the Marriott Corporation in association with the March of Dimes or by the Famous Amos Cookies⁴⁶⁶. Some of the above definitions are more general in approach and highlight the strategic abilities of CRM, as well as the impact outside the company.

⁴⁶⁵ Shargorodski L. *Cause-related marketing*. Association Management, 44(8), 1992, 170; Barnes N.G. and Fitzgibbons D.A., *Business-charity links: Is cause related marketing in your future?* Business Forum, 16(4), 1991, 20-23.

⁴⁶⁶ Cause Marketing Pioneers, available online at http://www.causemarketingforum.com/site/c.bkLUKcOTLkK4E/b.6443937/k.41E3/Background_and_Basics.htm#Marriott

Contemporary society is increasingly more concerned with the responsibility of businesses, it expects from companies to be socially involved and to contribute to the well being of the community. In this context, CRM comes as a perfectly acceptable marketing technique. It offers many advantages, both to companies implementing such programmes for their partners and to society.

The main business advantages to be considered are: enhancement of awareness and corporate image⁴⁶⁷, brand attractiveness⁴⁶⁸ and brand recognition⁴⁶⁹; consumers know the brand⁴⁷⁰ better; increased loyalty⁴⁷¹; competitive advantage⁴⁷²; increased purchase and revenues⁴⁷³. The main operative advantages associated to CRM are high level of control⁴⁷⁴, as well as support for other strategies, such as CSR, offering a feel / proof of goodwill⁴⁷⁵.

If the partnership between business and the cause is successful, cooperation could continue for years with multiplying effects. The benefits for the company and for the charity⁴⁷⁶ would be consolidated, and the impact of the partnership on the supported cause would be more relevant. In addition, by developing long-term partnerships, CRM could become a strategic instrument for companies⁴⁷⁷ and the consumers would be increasingly more loyal, believing in the company's commitment⁴⁷⁸.

⁴⁶⁷ Barnes N.G. and Fitzgibbons D.A., *Business-charity links: Is cause related marketing in your future?* Business Forum, 16(4), 1991, 20-23; Vanhamme J. et al., *To do well by doing good: Improving corporate image through cause-related marketing*. Journal of Business Ethics, 109(3), 2012, 259-274.

⁴⁶⁸ Qamar N., *Impact of Cause Related Marketing on Consumer Purchase Intention: Mediating Role of Corporate Image, Consumers' Attitude and Brand Attractiveness*, Middle-East Journal of Scientific Research, 16(5), 2013, 633-643.

⁴⁶⁹ Clark W.R., and Ellen P.S., *Locally owned and operated: Using cause-related marketing to create a competitive edge*. American Marketing Association. Conference Proceedings, 12, 2001, 350.

⁴⁷⁰ Till B.D., and Nowak, L.I., *Toward effective use of cause-related marketing alliances*. Journal of Product & Brand Management, 9(7), 2000, 472-484.

⁴⁷¹ Vanhamme J. et al., *op. cit.*; van den Brink D., Odekerken-Schröder G., and Pauwels P., *The effect of strategic and tactical cause-related marketing on consumers' brand loyalty*. Journal of Consumer Marketing, 23(1), 2006, 15-25; Galan-Ladero M.M., Galera-Casquet C., and Wymer W., *Attitudes towards cause-related marketing: Determinants of satisfaction and loyalty*. International Review on Public and Nonprofit Marketing, 10(3), 2013, 253-269.

⁴⁷² Clark W.R., and Ellen P.S., *op. cit.*

⁴⁷³ Barnes N.G. and Fitzgibbons D.A., *op. cit.*; Qamar N., *op. cit.*; Yechiam E., Barron G., Erev I. and Erez M., *On the robustness and the direction of the effect of cause-related marketing*. Journal of Consumer Behaviour, 2(4), 2003, 320-332.

⁴⁷⁴ Barnes N.G. and Fitzgibbons D.A., *op. cit.*

⁴⁷⁵ Till B.D. and Nowak L.I., *Toward effective use of cause-related marketing alliances*. Journal of Product & Brand Management, 9(7), 2000, 472-484.

⁴⁷⁶ Cone C.L., *Doing well by doing good: How a cause-related marketing program can help you win the universal tug-of-war for members*. Association Management, 48(4), 1996, 103.

⁴⁷⁷ Vanhamme J. et al., *op. cit.*

⁴⁷⁸ van den Brink D., Odekerken-Schröder G., and Pauwels P., *op. cit.*

Table 17.2
Definitions of cause-related marketing

Author(s)	Year	Definition
P.R. Varadarajan and A. Menon ⁴⁷⁹	1988	<i>the process of formulating and implementing marketing activities that are characterized by an offer from the firm to contribute a specified amount to a designated cause when customers engage in revenue-providing exchanges that satisfy organizational and individual objectives (p. 60)</i>
N.G. Barnes and D.A. Fitzgibbons ⁴⁸⁰	1991	<i>Corporate philanthropy organized to increase the bottom line (p. 20)</i>
A.R. Andreasen ⁴⁸¹	1996	<i>a corporation donates a specific amount of cash, food, or equipment in direct proportion to sales revenue - often up to some limit - to one or more nonprofits (p. 48)</i>
S. Adkins ⁴⁸²	1999	<i>a strategy that provides additional marketing opportunities for businesses and an additional fundraising tool for charities or causes. It can achieve the individual partner's goals whilst at the same time making a significant positive impact on our wider community (p. 50)</i>
H. Pringle and M. Thompson ⁴⁸³	1999	<i>a strategic positioning and marketing tool which links a company or brand to a relevant social cause or issue, for mutual benefit (p. 3)</i>
M. Barone, A.D. Miyazaki and K.A. Taylor ⁴⁸⁴	2000	<i>a strategy designed to promote the achievement of marketing objectives (e.g., brand sales) via company support of social causes (p. 248)</i>
Y. Cui et al. ⁴⁸⁵	2003	<i>the general alliance between businesses and non-profit causes that provide resources and funding to address social issues and business marketing objectives (p. 310)</i>
Ph. Kotler and N. Lee ⁴⁸⁶	2005	<i>a corporation commits to making a contribution or donating a percentage of revenues to a specific cause based on product sales (p. 81)</i>

⁴⁷⁹ Varadarajan P.R., and Menon A. op. cit., p. 60.

⁴⁸⁰ Barnes N.G. and Fitzgibbons D.A., op. cit., pp. 20-23.

⁴⁸¹ Andreasen A.R., *Profits for Nonprofits: Find a Corporate Partner*, Harvard Business Review, 74(6), 1996, 47-59.

⁴⁸² Adkins S., *Cause Related Marketing. Who Cares Wins*. Oxford: Butterworth-Heinemann, 1999.

⁴⁸³ Pringle H. and Thompson M., *Brand Spirit. How Cause Related Marketing Builds Brands*. Chichester: John Wiley, 1999.

⁴⁸⁴ Barone M., Miyazaki A.D. and Taylor K.A., *The influence of cause-related marketing on consumer choice: Does one good turn deserve another?* Journal of the Academy of Marketing Science, 28(2), 2000, 248-262.

⁴⁸⁵ Cui Y. et al., *Cause-related marketing: How generation Y responds*. International Journal of Retail & Distribution Management, 31(6/7), 2003, 310-320.

⁴⁸⁶ Kotler Ph. and Lee N., *Corporate social responsibility. Doing the most good for your company and your cause*, New Jersey: Wiley, 2005.

Consumers respond more positively to promotional campaigns related to CRM programmes⁴⁸⁷. Especially for the brand-conscious consumers, the existence of a close brand-cause fit increases the brand evaluation⁴⁸⁸. The positive response increases if consumers have a prior interest in the cause (they resonate with the cause)⁴⁸⁹ or if they can have a personal say on the cause supported⁴⁹⁰. Involving consumers in a CRM campaign increases the strategic value as well as the outcome of that endeavour⁴⁹¹.

Even if consumers react according to the relevance of the cause supported, companies do not necessarily peak the cause having a charitable target in mind. A study developed in 2002 by R. Bennett⁴⁹² in the UK shows that causes are mainly chosen using commercial criteria, "controversial" causes are avoided and the impact of the campaign is also evaluated from a commercial/business perspective. Firms ask for close links between their products and the nonprofit organizations involved. Companies also prefer to affiliate with well-known charities.

Choosing the partners is a strategic aspect, influencing the success of the CRM campaigns. It is interesting to notice that companies tend to consider that their nonprofit partners lack marketing abilities⁴⁹³.

The reaction of consumers to CRM programmes is contextualized, depending on the situation⁴⁹⁴. Nevertheless, some typical reactions can be observed. Consumers consider the profile of the company proposing a CRM programme. They prefer locally owned firms, but when the cause is large and a significant value is associated, non-local companies are positively considered⁴⁹⁵. Generally, local causes seem to be preferred, but the evidence is not definite⁴⁹⁶. They also prefer companies that are altruistic, to those considered involved in a cause to increase sales. Consumers tend to respond better when there is a low

⁴⁸⁷ Nan X. and Heo K., *Consumer Responses to Corporate Social Responsibility (CSR) Initiatives: Examining the Role of Brand-Cause Fit in Cause-Related Marketing*. *Journal of Advertising*, 36(2), 2007, 63-74.

⁴⁸⁸ Nan X. and Heo K., op. cit.

⁴⁸⁹ Vaidyanathan R., Aggarwal P., and Kozłowski W., *Interdependent self-construal in collectivist cultures: Effects on compliance in a cause-related marketing context*. *Journal of Marketing Communications*, 19(1), 2011, 50-51.

⁴⁹⁰ Robinson S., Irmak C., and Jayachandran S., *Choice of cause in cause-related marketing*. *Journal of Marketing*, 76(4), 2012, 126-139.

⁴⁹¹ Andersen S.E. and Johansen T.S., *Cause-related marketing 2.0: Connection, collaboration and commitment*. *Journal of Marketing Communications*, 2014, 1-20.

⁴⁹² Bennett R., *Corporate perspectives on cause related marketing*. *Journal of Nonprofit & Public Sector Marketing*, 10(1), 2002, 41-59.

⁴⁹³ Bennett R., op. cit.

⁴⁹⁴ Yechiam E. et al., op. cit., 329.

⁴⁹⁵ Clark W.R., and Ellen P.S., op. cit.

⁴⁹⁶ Vanhamme J. et al., op. cit., 263.

product-cause integration, considering that the company has altruistic rather than profit-oriented motives⁴⁹⁷. The reaction of consumers is also different considering the type of products associated: they respond better in the case of hedonistic products compared to utilitarian products⁴⁹⁸. In addition, disaster-linked CRM is also more convincing than CRM supporting ongoing problems⁴⁹⁹. A negative reaction to CRM associated to premium products has been also reported⁵⁰⁰.

17.4. CRM across countries

Studies of Cone Communications prove the high interest of people in CRM campaigns⁵⁰¹. 89% of the consumers worldwide declare that "*If given the opportunity, I would buy a product with a social or environmental benefit*". The actual behaviour is of a smaller extent, yet a significant 63%.

The general response to CRM is positive around the world, but geographic and cultural differences exist. Citizens in countries more familiar to CRM and CSR such as the United States or Canada are more responsive to CRM programmes compared to countries where CRM is a newer concept, such as Korea or the Netherlands⁵⁰². Another aspect influencing the response to CRM programmes is the values shared by society. More individualistic societies, such as the American one, tend not to pay a higher price compared to collectivist, interdependent societies, such as the Polish one⁵⁰³. In some countries, such as China⁵⁰⁴, India⁵⁰⁵ and Egypt⁵⁰⁶, people prefer to contribute to national causes, compared to international campaigns.

The experience with such marketing strategies and/or cultural background might be responsible for different evaluation of the motives

⁴⁹⁷ Moosmayer D.C. and Fuljahn A., *Corporate motive and fit in cause related marketing*. Journal of Product & Brand Management, 22(3), 2013, 200-207.

⁴⁹⁸ Nan X. and Heo K., op. cit., 65.

⁴⁹⁹ Vanhamme J. et al., op. cit., 263, 268.

⁵⁰⁰ Yechiam E. et al., op. cit., 329.

⁵⁰¹ *Cone Communications/Ebiquity*, Global CSR Study, 2015, 21.

⁵⁰² Vanhamme J. et al., op. cit., 268; Lavack A.M. and Kropp F., *A cross-cultural comparison of consumer attitudes toward cause-related marketing*. Social Marketing Quarterly, 9(2), 2003, 3-16.

⁵⁰³ Vaidyanathan R., Aggarwal P., and Kozlowski W., *Interdependent self-construal in collectivist cultures: Effects on compliance in a cause-related marketing context*. Journal of Marketing Communications, 19(1), 2011, 51.

⁵⁰⁴ Wang, Y., *Individualism/collectivism, charitable giving, and cause-related marketing: A comparison of Chinese and Americans: Charitable giving and CRM*. International Journal of Nonprofit and Voluntary Sector Marketing, 19(1), 2014, 40-51.

⁵⁰⁵ La Ferle C., Kubler G., and Edwards S., op. cit.

⁵⁰⁶ Hammad H. et al., *Antecedents and consequences of consumers' attitudinal dispositions toward cause-related marketing in Egypt*. Journal of Islamic Marketing, 5(3), 2014, 414-445.

driving companies to develop CRM campaigns. For instance, Indians tend to consider that companies are altruistic in a wider degree than the Americans are⁵⁰⁷. The first group would generally evaluate the CRM offer more positively than the latter group.

There is a geographic divide considering the willingness to reward companies that are responsible and give back to the society⁵⁰⁸. Studies developed by Nielsen show that the most enthusiastic countries to pay extra are India, the Philippines, Thailand and Indonesia; while European countries are amongst the most skeptical⁵⁰⁹. There is a division from this perspective between the developing countries (Asia and Latin America) and developed countries.

In addition, regional differences are observed in the social domains considered relevant. The main causes companies should support, in the view of the conscious-consumers, are⁵¹⁰:

- for Asia&Pacific: the environment, science & technology education and access,
- for Europe: the environment, eradication of poverty and hunger, entrepreneurship,
- for Middle East&Africa: eradication of poverty and hunger, science & technology education, access to clean water,
- for Latin America: the environment, entrepreneurship, eradication of poverty and hunger,
- for North America: entrepreneurship, the environment, science & technology education.

Some differences also are to be observed considering the gender and age of the consumers⁵¹¹. For instance, women are persuaded more easily than men are by CRM programmes⁵¹².

17.5. Concluding remarks

CRM is an increasingly more popular business practice, being relevant for the latest evolutions in the economic and social environment. Academic research is attentive to these evolutions and increased its interest in CRM

⁵⁰⁷ La Ferle, C., Kuber, G., and Edwards, S., *Factors impacting responses to cause-related marketing in India and the United States: Novelty, altruistic motives, and company origin*. Journal of Business Research, 66(3), 2013, 364-373.

⁵⁰⁸ Zbucnea, A., op. cit.; Lavack, A.M. and Kropp, F., op. cit.

⁵⁰⁹ Nielsen, *Consumer who care and say they will reward companies with their wallets*, 2013, 7.

⁵¹⁰ Nielsen, *The Global, Socially-Conscious Consumer*, 2012, 7.

⁵¹¹ Nielsen, *The Global, Socially-Conscious Consumer*, 2012, 8.

⁵¹² Integer Group, *The Checkout. Inside the in-store experience*, 2011.

investigation, especially aiming to understand better the associated mechanism, and creating the premises for more effective strategies in the field.

In close association with the mechanisms behind CRM strategies is the consumer's behaviour. Although the research in the field investigated these aspects on a large scale, a large degree of variability has been observed across cultures and economies. For instance, some consumers would positively appreciate a brand-cause combination, while others would be skeptical of such a situation and would not be attracted. Some consumers would rather support local companies/causes, while others would trust more ones that are international. These are only some situations, apparent inconsistencies, which companies have to consider carefully when designing CRM campaigns. Therefore, no universal recipe when planning a CRM campaign could be suggested, even if some researchers recommend several rules.

The previous presented landscape is associated with the fact that CRM is a complex strategic tool. It is not a simple tactical marketing instrument, as the name might suggest and many companies seem to consider. It has very strong relationships with branding, stakeholder management and with shaping the relationships with the consumers. We believe that further research on the societal impact of CRM, as well as on the relationships between the partners involved would be beneficial to understand better its value and real abilities to shape the contemporary environment.

Bibliography

1. *A Practical Guide to Regional Foresight*, FOREN, Foresight for Regional Development Network, European Communities 2001.
2. Adkins S., *Cause Related Marketing. Who Cares Wins*. Oxford: Butterworth-Heinemann, 1999.
3. ADRBI - www.adrbi.ro
4. Alstynne van M.W., Parker G.G. and Choudary S.P. 2016. *Pipelines, platforms, and the new rules of strategy*, Harvard Business Review.
5. AMPOR - www.inforegio.ro
6. *Analiza wskaźnikowa jako narzędzie doskonalenia zarządzania jednostką samorządu terytorialnego*, [in:] Nowe zarządzanie publiczne w polskim samorządzie terytorialnym, A. Zalewski [ed.], Oficyna Wydawnicza Szkoła Główna Handlowa w Warszawie, Warszawa 2005.
7. Andersen S.E., Johansen T.S., *Cause-related marketing 2.0: Connection, collaboration and commitment*. Journal of Marketing Communications, 2014.
8. Andreasen A.R., *Profits for Nonprofits: Find a Corporate Partner*, Harvard Business Review, 74(6), 1996.
9. Argandoña A., *Sharing Out in Alliances: Trust and Ethics*, "Journal of Business Ethics" 1999, no 21/2 vol 3.
10. Ariño A., de la Torre J., Smith Ring P., *Relational Quality: Managing Trust in Corporate Alliances*, "California Management Review" 2001, no 44, vol 1.
11. Armstrong M., *Zarządzanie zasobami ludzkimi*, Oficyna Ekonomiczna, Kraków 2005.
12. Bajo A., Alibegović D.J., *Javne financije lokalnih jedinica vlasti. Institut za javne financije*, Školska knjiga, Ekonomski institut, 2008.
13. Bajo A., Primorac M., *Major Public Enterprises in Croatia*. Working paper CIRIEC, 2015.
14. Balashevich M., Kudzelevich D., *The International Trade in Services of the Republic of Belarus in the Context of Association to the WTO*, Belarusian Economic Magazine, Minsk, 2014, no. 1.
15. Bandarenka N., *Foreign Investments in Belarus: Trends and Challenges*, Successful Management in Crunch Time. J.S. Kardas, A. Świrski (ed.), Siedlce, 2014.
16. Barnes N.G., Fitzgibbons D.A., *Business-charity links: Is cause related marketing in your future?* Business Forum, 16(4), 1991.
17. Barney, J.B. and Hesterly, W.S., 2006. *Strategic management and competitive advantage*, Harlow: Pearson/Prentice Hall.
18. Barone M., Miyazaki A.D., Taylor K.A., *The influence of cause-related marketing on consumer choice: Does one good turn deserve another?* Journal of the Academy of Marketing Science, 28(2), 2000.
19. Bejaković P., Bratić V., Vukšić G., *Komparativna analiza zaposlenosti i naknada za zaposlene u javnom sektoru u Hrvatskoj i u Europskoj uniji*, Institut za javne financije, 2010.
20. Bejaković P., Vukšić G., Bratić V., *Veličina javnog sektora u Hrvatskoj. Sustavi javne uprave*, 2010.

21. Bendkowski J., *Przesłanki rozwoju zaufania w środowisku wirtualnym*, [w:] *Człowiek i praca w zmieniającej się organizacji. W kierunku respektowania interesów przedsiębiorców*, M. Gableta, A. Pietroń-Piszczek (red.), Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu nr 223, Wrocław 2011.
22. Bennett R., *Corporate perspectives on cause related marketing*, *Journal of Nonprofit & Public Sector Marketing*, 10(1), 2002.
23. *Biała księga obszarów metropolitalnych*, Ministerstwo Administracji i Cyfryzacji, Warszawa 2013.
24. Biegańska K., *Subjective and situational determinants of the quality of life of entrepreneurs*, Unpublished PhD thesis, Łódź 2006.
25. Bień W., 2011. *Zarządzanie finansami przedsiębiorstwa*, Warszawa.
26. Bishop P., Hines A., Collins T., *The current state of scenario development: an overview of techniques*, *Foresight*, 2007, vol. 9, no. 1.
27. Blaik P., *Logistyka*, Wyd. PWE, Warszawa 2001.
28. Błaszczuk D.J., *Zarządzanie ryzykiem w świetle teorii kierowania*, *Zarządzanie Ryzykiem*, nr 26 (2008).
29. Bochniarz P., Gugala K., *Budowanie i pomiar kapitału ludzkiego w firmie*, Poltext, Warszawa 2005.
30. Borisov S., *The balance of Payments of Belarus*, *Magazine Money and the Credit*, Minsk 2010, no. 8.
31. Borodako K., *The process of regional foresight in the field of sustainable tourism based on selected projects*, Rzeszow 2008.
32. Borys T., Rogala P., *Quality of life at the local level - shot indicator*, United Nations Programme (UNDP) in Poland, Warsaw 2008.
33. Bourdieu P., 1984, *Czy socjologia działania jest możliwa?* (with Jean-Daniel Reynaud), [w:] *Kryzys i schizma. Antyscjentystyczne tendencje w socjologii współczesnej*, vol. 2 trans. K. Wakar, ed. E. Mokrzycki, PIW, Warsaw.
34. Bourdieu P., 1998, *On Television*, trans. P. Parkhurst Ferguson, NY: The New Pres.
35. Bourdieu P., 2004, *Męska dominacja*, trans. L. Kopciewicz, Warsaw, Oficyna Naukowa.
36. Bourdieu P., 2005, *Dystynkcja. Społeczna krytyka władzy sądzona*, trans. P. Biłos, Warsaw, Wyd. Naukowe Scholar.
37. Bourdieu P., 2009, *O telewizji. Panowanie dziennikarstwa*, trans. K. Sztandar-Sztanderska, A. Ziółkowska, ed. M. Jacyno, Warsaw, PWN.
38. Bourdieu P., 2009, *Rozum praktyczny. O teorii działania*, trans. J. Stryczyk, Kraków, Wyd. UJ.
39. Bourdieu P., Eagleton T., 2009, *Doksa i życie codzienne. O habitusie, oświeconej fałszywej świadomości i rapie rozmawiają krytyk ideologii i realista*, trans. J. Maciejczyk in *Recykling Idei*, no 12.
40. Bratnicki M., Kordel P., *Zaufanie a dialektyka procesu tworzenia strategii w przedsiębiorstwie*, „Przegląd Organizacji” 2002, no 9.
41. Brigham E.F., Gapenski L.C., 2000. *Zarządzanie finansami*, trans. M. Dyk i in., Warszawa.
42. Brink van den D., Odekerken-Schröder G., Pauwels P., *The effect of strategic and tactical cause-related marketing on consumers' brand loyalty*. *Journal of Consumer Marketing*, 23(1), 2006.

43. Brol M. (red.), *Zarys ekonomii sektora publicznego*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2010.
44. Brol R., Raszkowski A. (red.), *Problemy rozwoju regionalnego*, Wydawnictwo Uniwersytetu Ekonomicznego, Wrocław 2011.
45. Budget L., 2015, Available at: <http://www.zakon.hr/z/283/Zakon-o-prora%C4%8Dunu> (accessed: 2/4/2016).
46. *Budżet zadaniowy. Materiały szkoleniowe*. Kancelaria Prezesa Rady Ministrów, Warszawa 2007.
47. Buftea City Hall: http://www.primariabuftea.ro/admin/assets/librarii_documento/pidu__1300302969/1300303704__pidu.pdf
48. Bugdol M., *Wymiary i problemy zarządzania organizacją opartą na zaufaniu*, Wydawnictwo Uniwersytetu Jagiellońskiego, Kraków 2010.
49. Bugdol M., *Integracja metod i systemów zarządzania w administracji samorządowej*, „Problemy Jakości”, No. 9/2013.
50. Burgess D.C.H., Wasserman J. and Dahl C.A., *Global health diagnostics*, Nature, vol. 444, 2006.
51. Burmeister K., Neef A., Beyers B., *Corporate Foresight*, Unternehmen gestalten Zukunft, Murmann Verlag GmbH, Hamburg 2004.
52. Calof J., Smith J.E., *Critical success factors for government-led foresight*, Science and Public Policy, 2010, 37(1).
53. Carrol J., *Effective Project Management*, In Easy Steps Limited, Warwickshire, UK 2012.
54. Castro de F., Salto M., Steiner H., *The gap between public and private wages: new evidence for the EU*. European Commission, 2013.
55. Chalupiec I., Filipowicz C., *Rosja, ropa, polityka czyli o największej inwestycji PKN Orlen*, Prószyński Media Sp. z o.o., Warszawa 2009.
56. Chulda R., *Wojsko idzie w zielone*, Polska Zbrojna Nr 36 z dnia 6 września 2009.
57. Cichy P., *Alternatywne źródła energii*, [w:] *Energia w czasach kryzysu*, K. Kuciński (red.), Difin, Warszawa 2006.
58. Cieślak M., *Prognozowanie gospodarcze. Metody i zastosowania*, WN PWN, Warszawa 1997.
59. Ciriaci D., Moncada P., Castello P., Voigt P., *Innovation and job creation: a sustainable relation?*, *Dokumenty robocze IPTS o działalności w zakresie badań naukowych, rozwoju i innowacji prowadzonej przez korporacje*, seria nr 1/2013, Komisja Europejska.
60. Clark W.R., Ellen P.S., *Locally owned and operated: Using cause-related marketing to create a competitive edge*, American Marketing Association. Conference Proceedings, 12, 2001.
61. Clausewitz von C., *Handbook strategist. Arcana of policy, command and logistics, which must be known by every manager*, Ed. Helion SA, Gliwice 2013.
62. Cohen K.P., Low J., *The value creation index: quantifying intangible value*, Strategy & Leadership 2001, nr 29/5.
63. Collis D., Montgomery C.A., 1995. *Competing on Resources: Strategy in the 1990s*, *Harvard Business Review*, Vol. 73 (July-August).
64. Cone C.L., *Doing well by doing good: How a cause-related marketing program can help you win the universal tug-of-war for members*, Association Management, 48(4), 1996.

65. Cone Communications/Ebiquity, Global CSR Study, 2015.
66. Conte A., *Efficiency of R&D spending at national and regional level*, (Efektywność wydatków na szczeblu krajowym i regionalnym przeznaczonych na badania naukowe i rozwój), Wspólne Centrum Badawcze, Komisja Europejska Europejska, 2014.
67. Crespo M.G. (ed.), *Public Expenditure Control In Europe: Coordinating Audit Functions In The European Union*, Edward Elgar Publishing, 2005.
68. Crnković B., Požega Ž., Sučić G., *State ownership and corporate governance of enterprises in Croatia*. Faculty of Economics in Osijek, 2014.
69. Croatian Bureau of Statistics, 2016. Available at: http://www.dzs.hr/default_e.htm (accessed: 5/4/2016).
70. Cui Y., Trent E.S., Sullivan P.M., Matiru G.N., *Cause-related marketing: How generation Y responds*, International Journal of Retail & Distribution Management, 31(6/7), 2003.
71. Czaplicka-Kolarz K. (ed.), *Scenarios of technological development of fuel-energy to ensure energy security of the country – part 2. Scenarios developed on the basis of Polish energy foresight for the years 2005-2030*, Central Mining Institute, Katowice 2007.
72. Ćimić I., Počinje privatizacija: *Naručena procjena 54 državne tvrtke prije odluke o prodaji*, Index.hr. Available at: <http://www.index.hr/vijesti/clanak/pocinje-privatizacija-narucena-procjena-54-drzavne-tvrtke-prije-odluke-o-prodaji/888596.aspx>, 2016.
73. D'Aveni R.A. 1994. *Hypercompetition*, New York, The Free Press.
74. Da Costa O., Warnke P., Cagnin C., Scapolo F., *The impact of foresight on policy-making: insights from the forlearn mutual learning process*. Technology Analysis & Strategic Management, 2008, Vol. 20, No. 3.
75. Daheim C., Uerz G., 2006, *Corporate foresight in Europe: ready for the next step?*<http://foresight.jrc.ec.europa.eu/documents/papers/Seville-gu-cd-Draft-8-2006-e.pdf> (stan na dzień 14.12.2015).
76. Darren Swanson and László Pintér, 2006, *Governance structures for National and Sustainable Development Strategies (prepared for OECD)*, p. 32.
77. Das T.K., Teng B-S., *Between Trust and Control: Developing Confidence in Partner Cooperation in Alliances*, "Academy of Management Review" 1998, no 23 vol 3.
78. Das T.K., Teng B-S., *Trust, Control, and Risk in Strategic Alliances: An Integrated Framework*, "Organization Studies" 2001, no 22 vol 2.
79. De Waal A., 2007, *Strategic performance management*, New York, Palgrave MacMillan.
80. De Waal A., 2012, *What makes a high performance organisation*, Cranbrook, Global professional publishing.
81. Dent G., *Lawyers and Trust in Business Alliances*, "The Business Lawyer" 2002, no 58, vol 1.
82. Dentzer S., *The e-health connection: information and communications technology and the developing world*, Health Affairs, 2008, vol. 27 No. 6.
83. Detyna B., Detyna J., *Jakość usług medycznych. Ocena statystyczna. Podstawy metodyczne*, Wyd. Difin, Warszawa 2011.
84. Detyna B., *Menedżer publiczny – jego rola w procesie poprawy jakości*, [w:] Administracja publiczna – zagadnienia prawne i koncepcje zarządzania (No. 1), P. Borszowski, B. Detyna (red.), Wydawnictwo Państwowej Wyższej Szkoły Zawodowej im. A. Silesiusa w Wałbrzychu, Wałbrzych 2014.
85. Detyna B., *Motywowanie, jako element procesu kierowniczego*, „Roczniki Naukowe”,

- Administracja Publiczna, No. XV/2009, Wyd. Państwowej Wyższej Szkoły Zawodowej im. Angelusa Silesiusa w Wałbrzychu.
86. Detyna B., *Proces tworzenia jakości usług publicznych w społeczeństwie postindustrialnym – wyzwania stojące przed zarządzającymi*, [w:] Administracja publiczna – zagadnienia prawne i koncepcje zarządzania (No. 1), P. Borszowski, B. Detyna (red.), Wydawnictwo Państwowej Wyższej Szkoły Zawodowej im. A. Silesiusa w Wałbrzychu, Wałbrzych 2014.
87. Detyna B., *Projekt zrównoważonej karty wyników jako narzędzia pomiaru efektywności usług w administracji publicznej*, [w:] Administracja publiczna – zagadnienia prawne i koncepcje zarządzania (No. 1), P. Borszowski, B. Detyna (red.), Wydawnictwo Państwowej Wyższej Szkoły Zawodowej im. A. Silesiusa w Wałbrzychu, Wałbrzych 2014.
88. Detyna B., *Współczesne determinanty zarządzania w sektorze publicznym*, [w:] Nowoczesne koncepcje i metody zarządzania. Cechy szczególne zarządzania w sektorze publicznym. Specyficzne problemy kierowania ludźmi, K. Piotrowski (red.), Warszawa 2014.
89. Detyna B., *Współczesne metody i koncepcje zarządzania z perspektywy wartości dla klienta*, „Roczniki Naukowe”, Administracja Publiczna, No. 2/2005, Wyd. Państwowej Wyższej Szkoły Zawodowej im. Angelusa Silesiusa w Wałbrzychu.
90. Detyna B., *Zarządzanie jakością w logistyce. Koncepcje, metody i narzędzia wspomagające. Ujęcie praktyczne*, Wydawnictwo Państwowej Wyższej Szkoły Zawodowej im. Angelusa Silesiusa w Wałbrzychu, Wałbrzych 2015.
91. *Development strategy of Białystok*:
http://www.bialystok.pl/pl/dla_biznesu/rozwoj_miasta/
92. *Development strategy of Kielce*: <http://www.bip.kielce.eu/73>
93. *Development strategy of Lublin*: strategia2020.lublin.eu
94. *Development strategy of Łódź*: uml.lodz.pl/get.php?id=2771
95. *Development strategy of Warsaw*: https://www.um.warszawa.pl/sites/default/files/Strategia_Rozwoju_m.st._Warszawy_do_2020_r.pdf
96. Dolnicki B. (red.), *Partycypacja społeczna w samorządzie terytorialnym*, Wydawnictwo LEX, Warszawa 2014.
97. Domański R.S., *Kapitał ludzki i wzrost gospodarczy*, PWN, Warszawa 1993.
98. Drucker P., *Post-Capitalist society*, HarperCollins, New York 1993.
99. Dworak E., Grabia T. i in., *Gospodarka oparta na wiedzy, innowacyjność i rynek pracy*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2014.
100. Dylewski M., B. Filipiak, A. Guranowski, J. Hołub-Iwan, *Zarządzanie finansami projektu europejskiego*, C.H. Beck, Warszawa 2009.
101. Dyrektywa Parlamentu Europejskiego i Rady 2009/12/WE z dnia 11 marca 2009 r. w sprawie opłat lotniskowych.
102. Dyskontowanie, http://kredyty-inwestycyjne.eprace.edu.pl/471,Metody_oceny_efektywnosci_przedstawic_inwestycyjnych.html (date of access: 01.06.2014).
103. Economist 2016. *Invisible ads, phantom readers*, 26 March.
104. Edelman Trust Barometer 2016. Global Report, p.7, available online at <http://www.edelman.com/insights/intellectual-property/2016-edelman-trust-barometer/global-results>.

105. Edvinsson L., Malone M., *Kapitał intelektualny w przedsiębiorstwie*, PWN, Warszawa 2001.
106. Edwarczyk B., Rozwój obszarów metropolitalnych w świetle transformacji samorządu terytorialnego w Polsce w latach 1990-2014, [w:] *Polska – 25 lat samorządu terytorialnego*, Ruch prawniczy, ekonomiczny i socjologiczny, z. 3, 2015.
107. European Union - www.europa.eu - COM(2010)2020 of 03.03.2010.
108. Eurostat, Statistical books, *Eurostat regional yearbook 2015*, <http://ec.europa.eu/eurostat/documents/3217494/7018888/KS-HA-15-001-EN-N.pdf/6f0d4095-5e7a-4aab-af28-d255e2bcb395>.
109. Eurostat, Statistical books, *Key figures on Europe, 2015 edition*, <http://ec.europa.eu/eurostat/documents/3217494/7072644/KS-EI-15-001-EN-N.pdf/318ee884-50d6-48f0-b086-4410da85d6b6>.
110. Fazlagić A., *Pomiar kapitału społecznego w budowie gospodarki opartej na wiedzy w Polsce*, „Problemy Jakości” 2004 no 1.
111. Fedan R. (red.), *Budowanie strategii wzrostu wartości przedsiębiorstw i regionów*, Wydawnictwo Uniwersytetu Rzeszowskiego, Rzeszów 2013.
112. Ferdows K., De Meyer A., 1990, *Lasting improvements in manufacturing performance: in search of a new theory*, Journal of Operations Management, Vol 9, No 2.
113. Filipiak B., *Efektywność w zarządzaniu finansami samorządowymi. Skutek kryzysu czy obiektywna konieczność?*, Zeszyty Naukowe, Polskie Towarzystwo Ekonomiczne, Kraków 2011.
114. Filipowicz G., *Zarządzania kompetencjami zawodowymi*, PWE, Warszawa 2004.
115. Finnish Institute of Occupational Health: *Rajoja rikkova työ*, http://www.ttl.fi/fi/verkkokirjat/Documents/Rajoja_rikkova_työ_loppuraportti_pdf [3.3.2016].
116. Finnish Population Register Centre, <http://www.vaestorekisterikeskus.fi/default.aspx?docid=169> [3.3.2016].
117. Fitz-Enz J., *Rentowność inwestycji w kapitał ludzki*, Oficyna Ekonomiczna, Kraków 2001.
118. Fletcher J., Fyall, A., Gilbert, D., Wanhill S., 2013, *Tourism principles and practices*, Harlow, Pearson.
119. Flieger M., *Dojrzałość procesowa gmin w świetle współczesnych paradygmatów zarządzania publicznego*, [w:] *Racjonalność w funkcjonowaniu organizacji. Rozwój przez wiedzę*, Oficyna Wydawnicza Państwowej Wyższej Szkoły Zawodowej w Nysie, Nysa 2011.
120. Foerster A. and Kreuz, P. 2009. *Anything but ordinary: a crash course in lateral business thinking*, Marshall Cavendish Business: London.
121. Forlicz S. (ed.), *Metody ilościowe w ekonomii*, Wyd. Wyższej Szkoły Bankowej, Poznań 2008.
122. Frączkiewicz-Wronka A., Bartnicki M., *Efektywność organizacyjna i zarządzanie publiczne – wyłaniające się koncepcje, kluczowe wyzwania i kierunki dalszych badań w obszarze pomiaru efektywności*, „Organizacja i Kierowanie”, No. 3/2006.
123. Frączkiewicz-Wronka A., *Poszukiwanie istoty zarządzania publicznego*, [w:] *Zarządzanie publiczne – elementy teorii i praktyki*, A. Frączkiewicz-Wronka (red.), Wydawnictwo Akademii Ekonomicznej w Katowicach, Katowice 2009.

124. Friedag H.R., Schmidt W., *My Balanced Scorecard. Moja strategiczna karta wyników*, Wyd. C.H. Beck, Warszawa 2003.
125. Fukuyama F., *Zaufanie. Kapitał społeczny a droga do dobrobytu*, Wydawnictwo Naukowe PWN, Warszawa-Wrocław 1997.
126. Gajda A., *Experience and methods of expert data acquisition for tests using the foresight method, The EU scientific and technical work Wroclaw (185)*, 2011.
127. Gajdzik B., *Wprowadzenie Kaizen w urzędzie miasta, „Problemy Jakości”*, No. 7-8 2015.
128. Galan-Ladero M.M., Galera-Casquet C., Wymer W., *Attitudes towards cause-related marketing: Determinants of satisfaction and loyalty*. International Review on Public and Nonprofit Marketing, 10(3), 2013.
129. Gawroński H., *Zarządzanie publiczne w polskich samorządach terytorialnych*, Wydawnictwo Państwowej Wyższej Szkoły Zawodowej, Elbląg 2014.
130. Gheorghiu A., <http://www.id-hyperion.ro>, e-learning platform, Course of internal audit, 2012.
131. Gieorgica P. *Spółki pracownicze - przepis na sukces* (The Workers' Companies - a recipe for success), [w:] *Humanizacja pracy w warunkach współczesnego ładu gospodarczego*, (red.) K. Kubala, Ł. Kutuło, Wydawnictwo Uniwersytetu Łódzkiego, 2014.
132. Głuszek E., *Zaufanie jako istotny składnik kapitału intelektualnego przedsiębiorstwa*, [w:] *Zmiana warunkiem sukcesu. Integracja, globalizacja, regionalizacja – wyzwania dla przedsiębiorstw*, J. Skalik (red.), Wydawnictwo Akademii Ekonomicznej im. Oskara Langego we Wrocławiu, Wrocław 2002.
133. Goldman D.P., Shekelle P.G., Bhattacharya J., Hurd, M., Joyce G.F., Lakdawalla D.N., Matsui D., Newberry S., Panis C. and Shang, B., *Health status and medical treatment of the future elderly*, Technical Report TR-169-CMS, RAND Corporation, 2004.
134. Gollin M.A., *Driving innovation*, Cambridge University Press, Londyn 2008.
135. Gonet W., *Kredyty, pożyczki, obligacje w gospodarce finansowej samorządu terytorialnego*, Monografie i opracowania 543, Of. Wyd. SGH, Warszawa 2006.
136. Goodland R., *The concept of Environmental Sustainability*, Annual Review of Ecology and Systematics, Volume 26, 1995.
137. Gracht von der H.A., Vennemann Ch. Darkow I.L., *Corporate foresight and innovation management: A portfolio-approach in evaluating organizational development*. Futures, 2010, no 42(4).
138. Grant, R.M., 2007. *Contemporary strategy analysis*, London: Wiley.
139. Green A., *Prioritization of sources of intangible for use enterprise balance scorecard valuation models of information technology (IT) firms*, George Washington University, Washington, DC, 2004.
140. Gromada A., Janyst T., Golik K., *Kapitał Zagraniczny w Polsce: czy jesteśmy gospodarką poddostawcy?* (Foreign Capital in Poland: are we the economy of the undersupplier?), Fundacja Kaleckiego 2015.
141. Grudzewski W., Hejduk I., *Projektowanie systemów zarządzania*, Diffin, Warszawa 2001.
142. Grudzewski W.M., Hejduk I.K., Sankowska A., Wańtuchowicz M., *Zarządzanie zaufaniem w przedsiębiorstwie. Koncepcja, narzędzia, zastosowania*, Oficyna a Wolters Kluwer Business, Kraków 2009.

143. Guerreiro J., Rita P., Trigueiros D., *A text mining-based review of cause-related marketing literature*. Journal of Business Ethics, 2015.
144. Gupta S., Pirsch J., *A Taxonomy of Cause-Related Marketing Research: Current Findings and Future Research Directions*, Journal of Nonprofit & Public Sector Marketing, 15(1/2), 2006.
145. Guziejewska B., *Efektywność finansów samorządu terytorialnego*, „Gospodarka Narodowa”, 2008 nr 5-6.
146. Haber A., Szałaj M., *Ewaluacja wobec wyzwań stojących przed sektorem finansów publicznych*, PARP, Warszawa 2009.
147. Halal W.E., Kull M.D., Leffmann A., *Emerging Technologies. What's Ahead for 2001-2030*, The Futurist, 1997, Nov.-Dec.
148. Hall P., 1988, *The geography of the fifth Kondratieff*, [w:] D. Massey, J. Allen. *Restructuring Britain. Uneven Re-development: Cities and Regions in Transition*. London: Hodder and Stoughton.
149. Hammad H., El-Bassiouny N.M., Paul P., Mukhopadhyay K., *Antecedents and consequences of consumers' attitudinal dispositions toward cause-related marketing in Egypt*, Journal of Islamic Marketing, 5(3), 2014.
150. Handel detaliczny artykułami spożywczymi w Polsce 2015. Analiza rynku i prognozy rozwoju na lata 2015-2020. Raport PMR, lipiec 2015. Retail trade of edible goods in Poland in 2015. Analysis and forecast for the years 2015-2020. Raport PMR, July 2015.
151. Haque M.S., *Revisiting the New Public Management*, „Public Administration Review”, No. 67(1), 2007.
152. Hass-Symotiuk M. (red.), *System pomiaru i oceny dokonani szpitala*, Wyd. Wolters Kluwer, Warszawa 2011.
153. Haugan G.T., *Project Managements Fundamentals – Key Concepts and Methodology*, Management Concepts, Inc, Vienna, Virginia 2011.
154. Holstein-Beck M., *Szkice o pracy*, Książka i wiedza, Warszawa 1987.
155. <http://ec.europa.eu/eurostat>
156. <http://kalecki.org/wp-content/uploads/2015/10/Kapital-Zagraniczny-w-Polsce-raport-Fundacji-Kaleckiego.pdf>
157. http://stat.gov.pl/bdl/app/miejsc_w.dims?p_id=25282&p_token=1662301702
158. <http://wpolityce.pl/polityka/2687-nasz-wywiad-prof-krasnodedski-o-nastawieniu-niemcow-do-pis-koniecznej-zmianie-w-dyplomacji-pltforma-to-chaos-i-lemingowatosc-europejska> (17.10.2015).
159. <http://www.dziennikpolski24.pl/artykul/8180188,rodzimi-sklepikarze-i-producenci-cha-wspolnie-odbic-polski-handel,id,t.html?cookie=1> (24.09.2015).
160. <http://www.facebook.com?Stowarzyszenie-Stop-Wyzyskowi-Biedronka-439280996131479>
161. <http://www.regioadربي.ro/evenimente/parteneriate-pentru-investitii-inteligente-%C3%AEen-bucuresti-ilfov.aspx>.
162. http://wyborcza.biz/biznes/1,100896,16446179,Dyskonty_wykanzaja_male_sklepy_Kaczynski_szykuje.html#ixzz3o5aLPn20
163. <http://wyborcza.biz/Firma/1,101618,18994193,ministerstwo-finansow-ostro-zabralo-sie-za-walke-z-unikaniem.html#ixzz3o5r3yFSa> (08.08.2014) .
164. http://www.regioadربي.ro/media/150878/Buftea%20Projects_9oct2014.pdf

165. <http://www.regioadربي.ro/presa/vizite-la-proiecte/vizita-cu-mass-media-la-proiecte-regio-din-buftea-18092014.aspx>
166. Ignasiak E., 1994, *Optymalizacja projektów inwestycyjnych*, Warszawa.
167. Integer Group, *The Checkout. Inside the in-store experience*, 2011.
168. Iooty, M., *Firm ownership performance and allocative efficiency: brief insights into SOEs in New EU Member States*. The World Bank Group, 2015.
169. ISSAI 3000 – Standards and guidelines for performance auditing based on INTOSAI's Auditing.
170. Jabłoński A., Jabłoński M., *Model zarządzania regionem oparty na koncepcji zarządzania wartością regionu*, „Problemy Jakości”, no. 11/2013.
171. Jaeschke R., *Evidence based medicine (EBM), a medical practice based on reliable and timely publications (POWAP). Episode 8: Defining and measuring quality of life related with health*. Practical Medicine 4, 1999.
172. Jarillo J.C., *On Strategic Networks*, "Strategic Management Journal" 1988, no 9, vol 1.
173. Jarugowa A., Fijałkowska J., *Rachunkowość i zarządzanie kapitałem intelektualnym. Koncepcje i praktyka*, Ośrodek Doradztwa i Doskonalenia Kadr, Gdańsk 2002.
174. Jennings D.F., Art K., Gillin L.M., Christodoloy Ch., *Determinants of Trust in Global Strategic Alliances: AMRAD and the Australian Biomedical Industry*, "Competitiveness Review" 2000, no 10, vol 1.
175. Jidd, K., 2001. *Criticisms of the five forces model*, Working paper series 2001/4, University of Bath.
176. Johnson G., Scholes, K., Whittington R., 2014, *Exploring Corporate Strategy*, London: Prentice Hall.
177. Kaczmarek T., Jarosz R., *Czy ropa rządzi światem?*, Oficyna Wydawnicza Branta, Bydgoszcz 2006.
178. Kaplan R.S., Norton D.P., *Strategiczna karta wyników. Jak przełożyć strategię na działanie*, Wydawnictwo Naukowe PWN, Warszawa 2012.
179. Karłowski A., Wysocki J. (red.), 2013, *Przygotowanie i ocena projektów inwestycyjnych. Wybrane zagadnienia*, Warszawa.
180. Kasiewicz S., Rogowski W., Kicińska M., 2006, *Kapitał intelektualny – spojrzenie z perspektywy interesariuszy*, Kraków.
181. Keenan M., Popper R., *RIF (Research Infrastructures Foresight): Practical Guide for Integrating Foresight in Research Infrastructures Policy Formulation*, European Commission, Brussels, 2007.
182. Kerzner H.R., *Project management: A Systems Approach to Planning, Sceduling, and Controlling*, John Wiley and Sons, Hoboken, New Jersey 2013.
183. Kim, W.C and Mauborgne, R., 2005. *Blue Ocean Strategy*, Harvard Business Press.
184. Kisielewski T.A., *Nafta znowu zmieni świat*, Dom Wydawniczy Rebis Sp.zo.o., Poznań 2013.
185. Klein N., *Doktryna szoku*, Warszawskie Wydawnictwo Literackie Muza SA, Warszawa 2009.
186. Komunikat Komisji do Parlamentu Europejskiego i Rady - Europejska strategia bezpieczeństwa energetycznego COM(2014) 330 z dnia 28.05.2014.
187. Komunikat Komisji do Parlamentu Europejskiego, Rady Europejskiej, Europejskiego Komitetu Ekonomiczno-Społecznego i Komitetu Regionów, *For a European Industrial*

- Renaissance* / COM/2014/014 final, <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52014DC0014>
188. Komunikat Komisji do Parlamentu Europejskiego, Rady Europejskiej, Europejskiego Komitetu Ekonomiczno-Społecznego i Komitetu Regionów, *Badania naukowe i Innowacje jako źródło ponownego wzrostu gospodarczego* /SWD/2014/181 final/, <http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1432400330995&uri=CELEX:52014DC0339>
 189. *Koncepcja Przestrzennego Zagospodarowania Kraju 2030*, Ministerstwo Rozwoju Regionalnego, Warszawa 2012.
 190. Kotarbiński T., 1974, *Abecadło praktyczności*, Wyd. WP, Warszawa.
 191. Kotarbiński T., 1986, *Prakseologia a ekonomia*, [w:] *Drugi dociekań własnych. Fragmenty filozoficzne*. W setną rocznicę urodzin, PWN, Warszawa.
 192. Kotler Ph., Lee N., *Corporate social responsibility. Doing the most good for your company and your cause*, New Jersey, Wiley, 2005.
 193. Kotter J.P., Cohen, D.S., 2002, *The heart of change*, Harvard Business Press.
 194. Kozioł L., *System innowacyjności współczesnych przedsiębiorstw*, Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie, 2009, nr 1 (12).
 195. Kozuń-Cieślak G., *Mierzenie wyników aktywności sektora publicznego – podejście teoretyczne*, [w:] B. Filipiak (red.), *Ekonomiczne i organizacyjne instrumenty wspierania rozwoju lokalnego i regionalnego*, Zeszyty Naukowe Nr 500, Uniwersytet Szczeciński, Szczecin 2008.
 196. Kronberger-Sokołowska E., *Absorpcja środków Unii Europejskiej a racjonalizacja wydatków publicznych*, [w:] J. Gluchowski A. Pomorska, J. Szołno-Koguc (red.), *Ekonomiczne i prawne problemy racjonalizacji wydatków publicznych*, UMCS, Lublin.
 197. Król H., Ludwiczynski A. (red.), *Zarządzanie zasobami ludzkimi. Tworzenie kapitału ludzkiego organizacji*, Wydawnictwo Naukowe PWN, Warszawa 2006.
 198. Kuciński K., *Energia w czasach kryzysu*, Difin, Warszawa 2006.
 199. Kuźnik F., *Zarządzanie strategiczne w sektorze publicznym*, [w:] *Zarządzanie publiczne – elementy teorii i praktyki*, A. Frąckiewicz-Wronka (red.), Wydawnictwo Akademii Ekonomicznej im. Karola Adameckiego w Katowicach, Katowice 2009.
 200. La Ferle C., Kuber G., Edwards S., *Factors impacting responses to cause-related marketing in India and the United States: Novelty, altruistic motives, and company origin*. Journal of Business Research, 66(3), 2013.
 201. Lam M., O'Donnell M., Roberson D., *Achieving employee commitment for continuous improvement initiatives*, "International Journal of Operations & Production Management", No. 2/2015.
 202. Lavack A.M., Kropp, F., *A cross-cultural comparison of consumer attitudes toward cause-related marketing*. Social Marketing Quarterly, 9(2), 2003, 3-16.
 203. Leonard-Barton D., 1992, *Core capabilities and core rigidities: a paradox in managing new product development*, Strategic Management Journal, vol 13.
 204. Lev B., Schwartz A., *On the use of the economic concept of human capital in financial statements*, The Accounting Review, January 1971.
 205. Lewicki R.J., McAllister D.J., Bies R.J., *Trust and Distrust: New Relationships and Realities*, "Academy of Management Review" 1998, no 23, vol 3.
 206. Libertowska A., *Zaufanie i współpraca w sieci jako odpowiedź na przemiany*

- społeczno-gospodarcze. *Wybrane aspekty*, [w:] *Przedsiębiorczość i Zarządzanie*, Tom XV, Zeszyt 6, Część I, *Organizacje wobec wyzwań XXI wieku*, A. Tomaszczuk (red.), Wydawnictwo Społecznej Akademii Nauk, Łódź 2014.
207. Lichtarski J.M., *Struktury zadaniowe. Składniki, własności i uwarunkowania*, Wydawnictwo UE we Wrocławiu, Wrocław 2011.
208. Liszewski S. (red.), *Geografia urbanistyczna*, WN PWN, Warszawa 2012.
209. Lockwood A., Medlik S., 2013, *Tourism and hospitality in the 21st century*, Oxford, Butterworth-Heinemann.
210. Lorange P., Rembiszewski J., 2014, *From Great to gone: why FMCG companies are losing the race for customers*, Gower: Farnham.
211. Lorenzoni G., Baden-Fuller C., 2005, *Creating a strategic center to manage a web of partners*, in De Wit, B. and Meyer, R. *Strategic innovativeness*, London: Thomson.
212. Lozano A. Platonoff, Gadowska-Lila K., Pachciarek H., *Comparison of methods for managing relationships in the environment of the organization*, Difin, Warsaw 2009.
213. Lozano R., *A Holistic Perspective on Corporate Sustainability Drivers*, "Corporate Social Responsibility and Environmental Management, No. 3/2015.
214. Łobejko S., *Knowledge management in the enterprise network*, Ed. PARP, Warsaw 2008.
215. Łukasiewicz G., *Kapitał ludzki organizacji. Pomiar i sprawozdawczość*, PWN, Warszawa 2009.
216. Łukasiński W., *Kapitał ludzki źródłem jakościowej dojrzałości organizacji*, „Problemy Jakości”, No. 10/2015.
217. Ma S., Seid M., *Using foresight methods to anticipate future threats: the case of disease management*, Health Care Management Review, 2006, vol. 31, no. 4.
218. Macias J., *Istota i rola controllingu w zarządzaniu przedsiębiorstwem*, „Problemy Jakości”, No. 6/2013.
219. Makiela Z., *Przedsiębiorczość i innowacyjność terytorialna*, Wyd. C.H. Beck, Warszawa 2013.
220. Makulska D., *Kluczowe czynniki rozwoju w gospodarce opartej na wiedzy*,
221. Marciniak S., *Makro- i mikroekonomia. Podstawowe problemy współczesności*, WN PWN, Warszawa 2013.
222. Markowska-Bzducha E., *Budżet zadaniowy jako źródło mierników oceny działalności podmiotów sektora publicznego*, [w:] Filipiak B. (red.), *Ekonomiczne i organizacyjne instrumenty wspierania rozwoju lokalnego i regionalnego*, Zeszyty Naukowe Nr 500, Uniwersytet Szczeciński, Szczecin 2008.
223. Markowski T., *Teoretyczne podstawy rozwoju regionalnego i lokalnego*, [w:] Strzelecki Z., *Gospodarka regionalna i lokalna*, WN PWN, Warszawa 2008.
224. Marcuse H., 1991. *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society*, 2nd ed., Boston: Beacon Press.
225. Martin R.L. 2014. *The big lie of strategic planning*, Harvard Business Review, January-February.
226. Matusiak K., Kuciński J., Gryzik A. (ed.), *Foresight of personnel of modern economy*, PARP, Warsaw 2009.
227. Matusiak M., *Knowledge-based Economy*, ed. PARP, Warsaw 2008.
228. Mayne J., *Reporting on outcomes: setting performance expectations and telling*

- performance stories*, The Canadian Journal of Program Evaluation Vol. 19, No. 1, 2004 Canadian Evaluation Society.
229. Mączyński P., Kostrzewski L., *Dyskonty wykańczają małe sklepy. Kaczyński szykuje bat* <http://wyborcza.biz/biznes/l=1,100896,16446179>, *Dyskonty_wykanacza_male_sklepy_Kaczynski_szykuje.html#ixzz3o6Hxmj8e* (08.08.2014).
230. McGrath R.G., 2013, *The end of competitive advantage: how to keep your strategy moving as fast as your business*, Boston: Harvard Business Review Press.
231. Mentel G., Migąła-Warchoł A., Sobolewski M., *Wpływ kapitału ludzkiego na wyniki finansowe organizacji*, Zeszyty Naukowe Uniwersytetu Szczecińskiego nr 803, „Finanse, Rynki Finansowe, Ubezpieczenia” nr 66, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2014.
232. Miller R.A., *Lifesizing Entrepreneurship: Lonergan, Bias and the Role of Business in Society*, Journal of Business Ethics, 58, 2005.
233. Misiąg W., *Mierzenie zadań publicznych jako podstawa planowania budżetowego*, [w:] Głuchowski J. Pomorska A., Szotno-Koguc J. (red.), *Ekonomiczne i prawne problemy racjonalizacji wydatków publicznych*, UMCS, Lublin.
234. Modzelewski W., *Podatkami od dawna już nie rządzą politycy lecz biznes optymalizacyjny*. (For the longest time now taxes are not governed by the politicians, but by the optimization business), http://www.otoclub.pl/temat_208,podatkami-od-dawna-nie-rzadza-politycy-lecz-biznes-optymalizacyjny.html (14.X.2015).
235. Moosmayer D.C., Fuljahn A., *Corporate motive and fit in cause related marketing*. Journal of Product & Brand Management, 22(3), 2013.
236. Motorina O., *The State of the Economy of Belarus According to the Balance of Payments*. Magazine Bank Bulletin, Minsk 2015, no. 4.
237. Nan X., Heo K., Consumer Responses to Corporate Social Responsibility Initiatives: Examining the Role of Brand-Cause Fit in Cause-Related Marketing. *Journal of Advertising*, 36(2), 2007.
238. National Foresight Programme Poland 2020.
239. Nestić D., Rubil I., Tomić I., *Analiza plaća u javnom i privatnom sektoru u Hrvatskoj*. Ekonomski institut Zagreb, 2014.
240. Nielsen, *Consumer who care and say they will reward companies with their wallets*, 2013.
241. Nielsen, *The Global, Socially-Conscious Consumer*, 2012.
242. Nieścior A., *Zaufanie w normach ISO serii 9000:2000*, "Problemy Jakości" 1999, o 9.
243. Nogalski B., Niewiadomski P., *Marża jako kryterium racjonalności implementacji w elastycznie zorientowanym zakładzie wytwórczym*, [w:] M. Cisek, A. Marciniuk-Kluska (red.), *Efektywność organizacji*, Wyd. Studio Emka, Warszawa 2013.
244. Nogalski B., *Rozważania o modelach biznesowych przedsiębiorstw jako ciekawy poznawczo kierunek badań problematyki zarządzania strategicznego*, [w:] R. Krupski (red.), *Zarządzanie strategiczne. Modele i kierunki badań*, Wałbrzyska Wyższa Szkoła Zarządzania i Przedsiębiorczości, Wałbrzych 2009.
245. Olechnicka A., Gorzelak G., *Innowacyjny potencjał polskich regionów*, [w:] L. Zienkowski (red.), *Wiedza a wzrost gospodarczy*, Wydawnictwo Naukowe Scholar, Warszawa 2003.

246. Oleksyn T., *Zarządzanie kompetencjami. Teoria i praktyka*, Oficyna Ekonomiczna Kraków 2006.
247. Ostrom E., *Governing the commons: the evolution of institutions for collective action*, Cambridge University Press, Cambridge, New York 2008.
248. Owsiak S., *Finanse publiczne. Teoria i praktyka*, WN PWN, Warszawa 2005.
249. Owsiak S., *Programowanie budżetowe warunkiem racjonalizacji wydatków publicznych*, „Kontrola Państwowa” 2004, nr 1 specjalny, NIK, Warszawa.
250. Oxford dictionary, 2016. Available at: <http://www.oxforddictionaries.com/definition/english/spoils-system> (accessed: 13/4/2016).
251. Paliszkievicz J., *Zaufanie w zarządzaniu*, PWN, Warszawa 2013.
252. Patrzałek L., *Finanse samorządu terytorialnego*, Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu, Wrocław 2010.
253. Pawłowski J., 2004, *Metodyka oceny efektywności finansowej przedsięwzięć gospodarczych*, Łódź.
254. Pelin R., *Projektinhallinnan käsikirja*, Projektijohtaminen Oy, Jyväskylä 2008.
255. Perechuda K., *Dyfuzyja wiedzy jawnej i niejawniej jako instrument sieciowego zarządzania gminą*, [w:] Współczesne zarządzanie, „Kwartalnik Środowisk Naukowych i Liderów Biznesu”, no. 2/2006.
256. Pietruszka-Ortyl A., *Multiculturalism in the context management of professionals*, [in:] Organizacja i Zarządzanie. Kwartalnik Naukowy nr 1(25), Wydawnictwo Politechniki Śląskiej, Gliwice 2014.
257. Piketty T., 2014, *Capital in the Twenty-First Century*, Harvard University Press.
258. Płatkowska-Prokopczyk L., *Badanie ekonomicznej efektywności wybranych elementów zarządzania zasobami ludzkimi w przedsiębiorstwach rolniczych w województwie opolskim*, Uniwersytet Opolski, Studia i Monografie nr 324, Opole 2003.
259. Poczowski A., *Zarządzanie zasobami ludzkimi. Strategie-Procesy-Metody*, PWE, Warszawa 2008.
260. Pomykański A., *Zarządzanie procesem innowacji. Wybrane kierunki badawcze*, [w:] S. Lachowicz, B. Nogalski (red.), *Osiągnięcia i perspektywy nauk o zarządzaniu*, Wolters Kluwer business, Warszawa 2010.
261. Ponsard C. (red.), *Ekonomiczna analiza przestrzenna*, Wyd. AE w Poznaniu, Poznań 1992.
262. Popkova A., *The Analysis of the Economic Tendencies with use of Tools of the Balance of Payments of the Republic of Belarus*. Magazine Vestsi of NAN Belarusi, Minsk 2013, no. 3.
263. Poradowska K., Wójciak M., *Stimulants and barriers to the zero emission economic development in the views of the public*, Works and materials of the Faculty of Management at the University of Gdansk, Volume 4/8, Gdańsk 2011, p. 12.
264. *Porozumienie na rzecz polskiej przedsiębiorczości* (The Coalition of the Polish Entrepreneurs and Traders and the Poland Together – The United Right-Wing Parties entered into the Agreement for the Polish Entrepreneurship"), <http://www.debata.olsztyn.pl/images/Porozumienie.pdf> (9X2015).
265. Porras J.I., Collins J., *Building your company's vision*, Harvard Business Review, 1996.
266. Potocki W., *Ropa naftowa a wzrost gospodarczy. Teoria i praktyka*, Wydawnictwo Poltext, Warszawa 2014.

267. Pringle H., Thompson, M., *Brand Spirit. How Cause Related Marketing Builds Brands*. Chichester: John Wiley, 1999.
268. Privredni vjesnik, 400 largest companies in Croatia, 2014. Available at: <http://www.400naj.com/> (accessed: 3/4/2016)
269. Propozycje PiS: Zmiany w VAT i CIT, 3,5 mld zł od hipermarketów, <http://wyborcza.biz/biznes/1,100896,19003427,propozycje-podatkowe-prawa-i-sprawiedliwosci.html#ixzz3oCLYAtIN> (10.10.2015).
270. Pszczołowski T., *Celowość, skuteczność, efektywność*, "Prakseologia" 1977 nr 3 (63).
271. Qamar N., *Impact of Cause Related Marketing on Consumer Purchase Intention: Mediating Role of Corporate Image, Consumers' Attitude and Brand Attractiveness*, Middle-East Journal of Scientific Research, 16(5), 2013.
272. Raport Bisnode D&B Polska. "Barometr płatności na świecie 2015" (The Barometer of Payments in the World 2015), http://www.bisnode.pl/blog/wp-content/uploads/2015/06/Bisnode-Polska-Barometr-P%C5%82atno%C5%9Bci_Ameryka.pdf.
273. Raport OECD, *Productivity and growth accounting*, 2011.
274. Raport OECD, *The Knowledge Based Economy*, 1996.
275. *Raport Polska 2011. Gospodarka – Społeczeństwo – Regiony czy Raport o stanie przestrzennego zagospodarowania kraju „Polska przestrzeń”*, 2007.
276. *Raport. Budżet zadaniowy. Tom I. Budżet zadaniowy na rok 2008*. Kancelaria Prezesa Rady Ministrów, Departament Budżetu zadaniowego, Warszawa 2007.
277. REGIO in Bucharest Ilfov Region- www.regioadrbi.ro
278. Reports and guidelines published by the Romanian Court of Accounts on the institution's website <http://www.curteadeconturi.ro> Standards and practical experience.
279. Robinson S., Irmak C., Jayachandran S., *Choice of cause in cause-related marketing*. Journal of Marketing, 76(4), 2012.
280. Rogowski W., 2013, *Rachunek efektywności inwestycji. Wyzwania teorii i potrzeby praktyki*, Warszawa.
281. Rogoziński K., Panasiuk A. (red.), *Zarządzanie organizacjami usługowymi*, Wydawnictwo Uniwersytetu Ekonomicznego w Poznaniu, Poznań 2012.
282. Rogut A., Piasecki B., *Podręcznik ewaluatora projektów foresight*, Warszawa 2011.
283. Rosenzweig E.D., Easton G.S. 2010. *Tradeoffs in manufacturing? A meta-analysis and critique of the literature*, Production and Operations Management, Vol. 19 No. 2.
284. Rutkowski A., 2000, *Zarządzanie finansami*, Warszawa.
285. Ruuska K., *Pidä projekti hallinnassa*, Talentum, Helsinki 2008.
286. Safina K. (ed.), *Foresight as a method of shaping the future. Identification of potential and resources of Lower Silesia in the field of science and technology to improve the quality of life*, Drukat, Katowice.
287. Sankowska A., *Wpływ zaufania na zarządzanie przedsiębiorstwem. Perspektywa wewnątrzorganizacyjna*, Difin, Warszawa 2011.
288. Sargeant A., *Social and cause-related marketing: The growth of a discipline?* Journal of Nonprofit & Public Sector Marketing, 9(4), 2002.
289. Scarbrough H., Amaeshi K., *Evaluation practices in the commercialization of early stage technology: the role of trust [in:] The evolution of business knowledge*, H. Scarbrough [ed.], Oxford University Press, New York 2008.

290. Schoenherr T., Power D., Narasimhan R., Samson D., 2012, *Competitive capabilities among manufacturing plants in developing, emerging, and industrialized countries: a comparative analysis*, Decision Sciences, vol. 43, no. 1.
291. Scruton R., *Culture is important. Faith and feeling in the cornered the world*, ed. Profits S-ka Ed., Poznań 2010.
292. Shargorodski L., *Cause-related marketing*. Association Management, 44(8), 1992.
293. Sierpińska M., Jachna T., *Ocena przedsiębiorstwa według standardów światowych*, WN PWN, Warszawa, 1997.
294. Silfverberg P., *Projektityön käsikirja*, Edita Prima Oy, Helsinki 2007.
295. Skrzypek A. (ed.), *Knowledge, innovation and quality as factors of the success in the new economy* Department of Quality and Knowledge Management Faculty of Economics, University of Maria Curie-Skłodowska, Lublin 2014.
296. Skrzypek A., Senkus P., *Conditions and consequences of management of change in the organization in the knowledge society*, [in:] A. Skrzypek (ed.), Quality and risk in conditions of changing business environment, Editor Department of Quality and Knowledge Management Faculty of Economics, University of Maria Curie-Skłodowska, Lublin 2015.
297. Skrzypek A., *Wiedza jako podstawa paradygmatu nowej gospodarki*, „Problemy Jakości” 2015, nr 7-8.
298. Skrzypek E. (red.), *Dojrzałość jakościowa a wyniki przedsiębiorstw zorientowanych pro jakościowo*, Difin Warszawa, 2013.
299. Skrzypek E., *Efektywność jako czynnik sukcesu organizacji*, [w:] M. Cisek, A. Marciniuk-Kluska (red.), *Efektywność organizacji*, Wydawnictwo Studio Emka, Warszawa 2013.
300. Skrzypek E., *Efektywność podstawą sukcesu organizacji*, Materiały z Konferencji Naukowej nt. *Efektywność systemów zarządzania*, E. Skrzypek (red.), ZEJiZW UMCS, Lublin 2000.
301. Skrzypek E., Hofman M., *Zarządzanie procesami w przedsiębiorstwie. Identyfikowanie, pomiar, usprawnianie*. Oficyna Wydawnicza Wolters Kluwer, Warszawa 2010.
302. Skrzypek E., *Jakość i efektywność*, Wyd. Uniwersytetu Marii Curie-Skłodowskiej, Lublin 2002.
303. Skrzypek E., *Uwarunkowania pomiaru i doskonalenia procesów w organizacji*, [in:] *Praktyka zarządzania jakością XXI wieku*, T. Sikora, M. Giemza [ed.], Wydawnictwo Naukowe PTTŻ, Kraków 2012.
304. Skrzypek E., *Wpływ zaufania i relacji na rozwój kapitału społecznego organizacji*, [w:] *Funkcjonowanie i doskonalenie zarządzania – aspekty społeczne*, U. Balon, T. Sikora (red.), Wydawnictwo Naukowe PTTŻ, Kraków 2015.
305. Skrzypek E., *Zarządzanie wiedzą jako wymóg współczesności*, „Problemy Jakości”, No. 2/2014.
306. Slaughter R.A., *Futures Education: catalyst for our times*, Pedagogies for Emergent Worlds, Sense Publishers, Rotterdam 2008.
307. Sochacka-Krysiak H., *Niektóre problemy efektywności w gospodarce finansowej samorządu terytorialnego*, [w:] S. Wieteska, Wypych M. (red.), *W poszukiwaniu efektywności finansów publicznych*, Wydawnictwo Uniwersytetu Łódzkiego, 2009.

308. Soni S., Soni A., *Cause related marketing: An ethical quandary or an altruistic charity*. International Journal of Business Ethics in Developing Economies, 3(2), 2014.
309. *Sprawozdanie z 2013 r. na temat konkurencyjności Unii innowacji, SWD(2013) 505*.
310. Staniłko J.F., *Ostatni dzwonek*, „Gość niedzielny”, 7 II 2016.
311. Stewart T.A., *Intellectual Capital: The Wealth of New Organizations*, Nicholas Brealey Publishing LTD, London 1997.
312. Stępień J., *W poszukiwaniu współczesnego kształtu samorządu terytorialnego*, [w:] *Polska – 25 lat samorządu terytorialnego*, Ruch prawniczy, ekonomiczny i socjologiczny, z. 3, 2015.
313. Stępień J.B., Mierniki funkcji kadrowej, „Personel i Zarządzanie”, nr 13/14, 2001.
314. Stiglitz J.E., Bilmes L.J., *Wojna za trzy biliony dolarów. Prawdziwy koszt konfliktu w Iraku*, PWN, Warszawa 2010.
315. Stoner J.A.F., Freeman R.E., Gilbert D.R Jr., *Kierowanie*, PWE, Warszawa 1999,
316. Strahl D. (red.), *Metody oceny rozwoju regionalnego*, Wydawnictwo Akademii Ekonomicznej im. Oskara Langego, Wrocław 2006.
317. *Subjective well-being and social Policy* (2010), Edited by Simon Chapple, European Commission Directorate-General for Employment, Social Affairs and Inclusion, <http://ec.europa.eu>
318. Suhrcke M., Mckee M, Sauto Arce R., Tsoлова S., Mortensen J., *The contribution of health ton the economy in the European Union*. European Communities, Health and Consumer Protection DG, 2005.
319. Sulowska U., *Rachunek kosztów jakości narzędziem oceny efektywności systemu zarządzania jakością oraz jakości zarządzania*, [w:] *Praktyka zarządzania jakością XXI wieku*, T. Sikora, M. Giemza (red.), Wydawnictwo Naukowe PTTŻ, Kraków 2012.
320. Szczepankowski P., *Finanse przedsiębiorstwa. Teoria i praktyka*, Warszawa 1999.
321. Szczepańska K., *Koszty jakości*, Wyd. Placet, Warszawa 2009.
322. Sztompka P., *Socjologia. Analiza społeczeństwa*, Wydawnictwo Znak, Kraków 2002.
323. Szukielojć-Bieñkuńska A., Walczak T., *Statistical measurement of economic and social progress in a changing world*, News Statistical, No. 7/8, Warsaw 2011.
324. Taylor J., *Survival Guide for Project Managers*, In Easy Steps Limited, Warwickshire, UK 2012.
325. *The Balance of Payments, the International Investment Position and a Gross External Debt of the Republic of Belarus* (for January-December, 2014): statistical bulletin. National bank of the Republic of Belarus, Minsk 2015.
326. The European Union, European Commission (EC): Croatia Country Report, 2016.
327. The Forum of Global Association of Regions, World Regions Forum, R 20, NRG4SD etc which inter alia look into questions relating to the environment, food security and economic development.
328. *The main and detailed strategic objectives for the development of Rzeszow*: <http://bip.erzeszow.pl/plany-i-programy/940,strategia-rozwoju-miasta-rzeszowa-i-studium-uwarunkowa-i-kierunk-w-zagospodarowania-przestrzennego.html>
329. The World Bank: Country Overview: Croatia, 2015. Available at: <http://www.worldbank.org/en/country/croatia/overview> (accessed: 10/4/2016).

330. The World Bank: Improving the Corporate Governance of State-Owned Enterprises: The Approach of the World Bank. World Bank Group, 2010.
331. Tidd J., Pavitt, K., Bessant J., 2001, *Managing innovation*, Wiley.
332. Till B.D., Nowak L.I., *Toward effective use of cause-related marketing alliances*. Journal of Product & Brand Management, 9(7), 2000.
333. Tomkiewicz J., *Jak mierzyć efektywność wydatków publicznych?*, „MBA”2003, nr 1.
334. Toninelli P., *The rise and fall of state-owned enterprise in the western world*, Cambridge University Press, 2000.
335. Tyagi R.K., Gupta P., *Strategiczna karta wyników firm usługowych*, Wyd. PWN, Warszawa 2010.
336. United Nations, 2016: The System of National Accounts (SNA). Available at: <http://unstats.un.org/unsd/nationalaccount/sna.asp> (accessed 28/3/2016).
337. Urbanek G., *Wycena aktywów niematerialnych przedsiębiorstwa*, PWE, Warszawa 2008.
338. *Ustawa o finansach publicznych z dnia 27.08.2009 roku*, Dz.U. nr 157, poz. 1240 z późn. zm.
339. Vaidyanathan R., Aggarwal P., Kozłowski W., *Interdependent self-construal in collectivist cultures: Effects on compliance in a cause-related marketing context*. Journal of Marketing Communications, 19(1), 2011.
340. Vanhamme J., Lindgreen A., Reast J., Popering N., *To do well by doing good: Improving corporate image through cause-related marketing*. Journal of Business Ethics, 109(3), 2012.
341. Varadarajan P.R., Menon A., *Cause-related marketing: A coalignment of marketing strategy and corporate philanthropy*. Journal of Marketing, 52(3), 1988. Gross L. Cause-related marketing concept spreads to ATMs in the south. *American Banker*, 153(136), 1988.
342. Vizek M., *Poslovanje javnih poduzeća i njihov značaj za ekonomsku aktivnost u RH*. Skup u organizaciji Lipe-udruge poreznih obveznika, 2015.
343. Wang Y., *Individualism/collectivism, charitable giving, and cause-related marketing: A comparison of Chinese and Americans: Charitable giving and CRM*. International Journal of Nonprofit and Voluntary Sector Marketing, 19(1), 2014.
344. Warhurst A., *Future roles of business in society: the expanding boundaries of corporate responsibility and a compelling case for partnership*, Futures, 37, 2005.
345. Wartalska M., *Gospodarka finansowa miasta. Podstawy teoretyczne i studium przypadku*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź 2009.
346. Wąsowska K., *Wpływ kryzysów paliwowych na funkcjonowanie transportu powietrznego – rozprawa doktorska*, AON, Warszawa 2011.
347. White G.P., 1996, *A survey and taxonomy of strategy-related performance measures for manufacturing*, International Journal of Operations & Production Management, vol. 16, no. 3.
348. Wojcicki J., Ładyżyński M.P. (ed.), *Foresight Project Monitoring System and scenarios for the Development of Medical Technology in Poland*, CONSORTIUM ROTMED, Warsaw 2008.

349. Woroniecki J., *Nowa gospodarka: Miraż czy rzeczywistość? Doktryna – praktyka – optyka OECD*, [w:] W. Welfe (red.), *Spółeczeństwo oparte na wiedzy*, Społeczna Szkoła Przedsiębiorstwa i Zarządzania w Łodzi, Łódź 2001.
350. Woźniak L., *Foresight for a sustainable development of the region on the example of the Podkarpackie province*, Rzeszów 2008.
351. Wójtowicz A., Koziół L., *Koncepcja aliansów wiedzy w procesie innowacji*, Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie, nr 1(20), 2012.
352. www.węglowodory.pl
353. www.aviasg.com
354. www.dlapilota.pl
355. www.gospodarka.pl
356. www.interia.pl
357. www.lotnictwo.net.pl
358. www.lotniczapolska.pl
359. www.peakoil.pl
360. www.pomorze2030.pl
361. www.samolotypasazerskie.pl
362. www.wyborcza.biz
363. Wymer W., Sargeant A., *Insights from a review of the literature in cause-related marketing*, *International Review on Public and Non Profit Marketing*, 3(1), 2006.
364. Yechiam E., Barron G., Erev I., Erez M., *On the robustness and the direction of the effect of cause-related marketing*. *Journal of Consumer Behaviour*, 2(4), 2003.
365. Zairi M., Jarrar Y., 2000, *Becoming world class through a culture of measurement*. In Neely, A. (ed.) *Performance measurement: past, present and future*, Cranfield, Centre for Business Performance.
366. Zalewski A., *Nowe zarządzanie publiczne w polskim samorządzie terytorialnym*, SGH, Warszawa 2005.
367. Zbuczea A., *Are Customers Rewarding Responsible Businesses? An Overview of the Theory and Research in the Field of CSR*, *Management Dynamics in the Knowledge Economy*, 1(3), 2013.
368. Zeliaś A., *Metody statystyczne*, Państwowe Wydawnictwo Ekonomiczne, Warszawa 2000.
369. Zhu F., Furr N., 2016, *Products to Platforms: Making the Leap*, *Harvard Business Review*, April.
370. Ziębicki B., *Efektywność organizacyjna podmiotów sektora publicznego*, Zeszyty Naukowe Uniwersytetu Ekonomicznego w Krakowie, Seria specjalna: Monografie nr 234, Wydawnictwo Uniwersytetu Ekonomicznego w Krakowie, Kraków 2014.
371. Zorska A. (red.), *Chaos czy twórcza destrukcja? Ku nowym modelom w gospodarce i polityce*, Oficyna Wydawnicza SGH, Warszawa 2011.

