

University of Economics and Humanities
Wyższa Szkoła Ekonomiczno-Humanistyczna
Вища школа економіко-гуманітарна
Высшая школа экономико-гуманитарная

Methodological bases and practice of sustainable development implementation

Monograph

Edited by: Dr. of Economics, Prof. O. Prokopenko,
Ph.D in Economics, Assoc. Prof. N. Kostyuchenko

Recommended by the Academic Council of the University of Economics and Humanities
(Bielsko-Biala, Republic of Poland),
Academic Council of Sumy State University (Ukraine)

Bielsko-Biala,
2015

ББК 65.050.9
УДК 502.131.1
М 54

Reviewers:

Angel Mirchev, Dr. of Economics, Professor, Professor of University “Professor Dr. Assen Zlatarov”
(Burgas, Republic of Bulgaria);

Leonid Melnyk, Dr. of Economics, Professor, the Head of Department of Economics and Business Administration,
Director of the Institute of Economics Development of the Ministry of Education and Science of Ukraine and National
Academy of Sciences of Ukraine in Sumy State University (Ukraine);

Ayapbergen Taubaev, Dr. of Economics, Professor of Economy and Management Department
in Karaganda Economic University of Kazpotrebsoyus (Republic of Kazakhstan)

*Recommended by the academic council of the Higher School of Economics and Humanities
(Bielsko-Biala, Republic of Poland) (protocol № WSEH/589/11/14 of 26.11.2014),
academic council of Sumy State University (Ukraine)
(protocol № 8 of 10.04.2014)*

M 54 **Methodological** bases and practice of sustainable development implementation : monograph /
edited by Dr. of Economics, Prof. O. Prokopenko, Ph.D in Economics, Assoc. Prof.
N. Kostyuchenko. – Ruda Śląska : Drukarnia i Studio Graficzne Omnidium, 2015. – 272 p.

ISBN 978-83-63649-56-2

The monograph deals with new approaches and urgent questions to create methodology of sustainable development. There is suggested usage of economic instruments for sustainable development on different management levels. Authors analyze and suggest scientific and methodological approaches to sustainable development. Special attention is paid to scientific and applied aspects of sustainable development into regional and territorial levels.

It can be useful for specialists on environmental economics, innovative management and marketing, business economics, regional development, macro-economic regulation, and also for lecturers, post-graduates and students of HEIs economic specialties.

W monografii zbadano aktualne kwestie tworzenia metodologii zrównoważonego rozwoju. Przeanalizowano główne czynniki zrównoważonego rozwoju. Zaproponowano instrumenty ekonomiczne dla zrównoważonego rozwoju na różnych szczeblach zarządzania. Zaproponowano podejście naukowo-metodyczne do zapewnienia zrównoważonego rozwoju. Szczególną uwagę zwraca się na naukowo-praktyczne aspekty zapewnienia zrównoważonego rozwoju na poziomie regionalnym i terytorialnym.

Adresatem wyników badań są specjaliści w ekonomii środowiska, regulacji makroekonomicznej, rozwoju regionalnego, ekonomii przedsiębiorstwa, innowacyjnego zarządzania i marketingu, jak również pracownicy naukowo-dydaktyczni i studenci dziedziny nauk ekonomicznych i dyscypliny nauk o zarządzaniu.

У монографії досліджено актуальні питання формування методології сталого розвитку. Проаналізовано основні чинники сталого розвитку. Розглянуто економічні інструменти забезпечення сталого розвитку на різних рівнях управління. Запропоновано науково-методичні підходи до забезпечення сталого розвитку. Особливу увагу приділено науково-прикладним аспектам забезпечення сталого розвитку в галузевому та територіальному розрізах.

Адресовано фахівцям з питань економіки природокористування, макроекономічного регулювання, регіонального розвитку, економіки підприємства, інноваційного менеджменту та маркетингу, а також науково-педагогічним працівникам, аспірантам і студентам галузі наук економічних і дисципліни наук про управління.

В монографии исследованы актуальные вопросы формирования методологии устойчивого развития. Проанализированы основные факторы устойчивого развития. Рассмотрены экономические инструменты обеспечения устойчивого развития на различных уровнях управления. Предложены научно-методические подходы к обеспечению устойчивого развития. Особое внимание уделено научно-прикладным аспектам обеспечения устойчивого развития в отраслевом и территориальном разрезе.

Адресовано специалистам по вопросам экономики природопользования, макроекономического регулирования, регионального развития, экономики предприятия, инновационного менеджмента и маркетинга, а также научно-педагогическим работникам, аспирантам и студентам области экономических наук и дисциплины наук об управлении.

ББК 65.050.9
УДК 502.131.1

ISBN 978-83-63649-56-2

© University of Economics and Humanities, 2015

Content

	P.
INTRODUCTION	5
PART 1 THEORETICAL AND METHODOLOGICAL ISSUES OF SUSTAINABLE DEVELOPMENT	
1.1 Sustainability transformation: challenges and insights	8
1.2 Sectorial issues of rio convention obligations implementation in national sustainable development policy of Ukraine.....	20
1.3 Ecologically oriented innovative culture of a society as a prerequisite for sustainable development: perspectives for Ukraine.....	31
1.4 Optimization of the investment fund distribution dealing with nature protection projects	40
1.5 International coordination of economic policies as a european perspective for sustainable development	48
1.6 Evolution of marketing and sustainable development	59
1.7 Sustainable development – sustainable enterprise and sustainable personneli n the 21'st century.....	68
PART 2 SCIENTIFIC AND METHODOLOGICAL ISSUES OF SUSTAINABLE DEVELOPMENT IMPLEMENTATION	
2.1 Indicators as management tools of sustainable development on individual, institutional and regional levels	77
2.2 Ecological management as a tool for effective use of the principles for sustainable development	86
2.3 Cluster approach to evaluation of the competitiveness of the regions based on the concept of sustainable development.....	97
2.4 Development of environmental marketing strategies of enterprises on the basis of sustainable development	108
2.5 Limitations to sustainable development of tourist territories: possible solutions for Republic of Bulgaria	118
2.6 Corporate environmental responsibility as a tool for sustainable development of a country	129

PART 3 SCIENTIFIC AND APPLIED ISSUES OF SUSTAINABLE DEVELOPMENT IMPLEMENTATION

3.1 Ecological marketing as a tool for promoting sustainable business in zones of ecological risk	136
3.2 Opportunities for social and economic development of districts for planning in Republic of Bulgaria.....	146
3.3 Economic mechanisms of environmental and economic security in the black sea region	155
3.4 Sustainable development strategy of the river Horyn basin's agrosphere	167
3.5 General principles of conducting a competitive marketing research of industrial market environment	179
3.6 Alternative management as a conceptual modification of educational processes for sustainable development in higher education institutions	190

PART 4 PRACTICAL ISSUES OF SUSTAINABLE DEVELOPMENT IMPLEMENTATION

4.1 Public-private partnership as a form of state and business cooperation in investment sphere.....	202
4.2 Professional and emotional competencies of government officials.....	214
4.3 Informative space of innovative business processes of industrial enterprises in conditions of ukrainian structuration	225
4.4 Credit support in the financing of investment activity of ukrainian enterprises	238
4.5 Marketing research of new media	247
4.6 Technological development of the process of banking products implementation.....	256
Abstract	268
Abstrakt (abstract in Polish).....	269
Анотація (abstract in Ukrainian).....	270
Аннотация (abstract in Russian)	271

INTRODUCTION

The success of implementing the concept of sustainable development at different levels directly depends on consistency of theory and practice. Violation of such consistency leads to inefficient management of socio-ecological and economic development, to a number of problems that can amplify its negative impact on development processes in conditions of internationalization and globalization. These circumstances necessitate generalization and harmonization of international experience in sustainable development implementation, taking into account regional and industrial characteristics.

Authors' points of view and research results presented in the monograph are focused on improvement and harmonization of theoretical and methodological bases, scientific and methodological approaches and applied aspects of sustainable development. The authors outlined general aspects of sustainable development as well as European perspectives and perspectives for Ukraine. They stressed on the role of ecological management and ecological marketing on the way to sustainability. They also grounded on the role of ecologically oriented innovative culture in that process. The authors also defined regional limitations to sustainable development.

The authors of the monograph are scholars and practitioners from three countries, including Republic of Poland, Ukraine and Republic of Bulgaria.

Prokopenko Olha, Dr. of Economics, Professor, University of Economics and Humanities (Bielsko-Biała, Republic of Poland), Sumy State University (Ukraine), Scientific Editor (introduction; 2.1);

Kostyuchenko Nadiya, PhD in Economics, Associate Professor, Sumy State University (Ukraine), Scientific Editor (introduction; 2.6);

Aleksandrov Ivan, Dr. of Economics, Professor, Donetsk National University (Ukraine) (1.4);

Borisova Lalka, Dr. of Economics, Assistant Professor, International Business School – Sofia (Botevgrad, Republic of Bulgaria) (4.2);

Gritsenko Larisa, Dr. of Economics, Associate Professor, State Higher Educational Establishment “Ukrainian Academy of Banking of the National Bank of Ukraine” (Sumy, Ukraine) (4.1);

Illashenko Serhii, Dr. of Economics, Professor, University of Economics and Humanities (Bielsko-Biała, Republic of Poland), Sumy State University (Ukraine) (1.3);

Khlobystov Ievgen, Dr. of Economics, Professor, University of Economics and Humanities (Bielsko-Biała, Republic of Poland), PA “Institute of Environmental Management and Sustainable Development National Academy of Sciences of Ukraine” (Kyiv, Ukraine) (1.2);

Sadchenko Olena, Dr. of Economics, Professor, University of Economics and Humanities (Bielsko-Biala, Republic of Poland), Odessa I. I. Mechnikov National University (Ukraine) (3.1);

Ylyev Tsvetan, Doctor of Economics, Assistant Professor, International Business School – Sofia (Botevgrad, Republic of Bulgaria) (3.2);

Zharova Liubov, Dr. of Economics, Senior Researcher, PA “Institute of Environmental Management and Sustainable Development National Academy of Sciences of Ukraine” (Kyiv, Ukraine) (1.2);

Abakumenko Olga, Ph.D in Economics, Chernihiv State Institute of Economics and Management (Ukraine) (4.4);

Anderson Nina, Ph.D in Economics, Research Assistant, Odessa Institute of Market Problems and Economic and environmental studies (Ukraine) (2.3);

Dworak Janusz, Ph.D in Economics, WSB University in Gdansk (Republic of Poland) (3.6);

Grinchenko Yuriy, Ph.D in Economics, Odesa I.I. Mechnikov National University (Ukraine) (1.5);

Klimenko Oleksandr, Ph.D in Technics, National University of Water and Environment (Ukraine) (3.4);

Knap-Stefaniuk Agnieszka, Ph.D in Economics, Vistula University (Warsaw, Republic of Poland) (1.7);

Krukhmal Olena, Ph.D in Economics, State Higher Educational Establishment “Ukrainian Academy of Banking of the National Bank of Ukraine” (4.6);

Kryklii Olena, Ph.D in Economics, State Higher Educational Establishment “Ukrainian Academy of Banking of the National Bank of Ukraine” (4.6);

Lukash Svetlana, Ph.D in Economics, Sumy National Agrarian University (Ukraine) (3.5);

Nekrasenko Larisa, Ph.D in Biology, Associate Professor, Poltava state agrarian academy (Ukraine) (2.1);

Peresadko Galina, Ph.D in Economics, Assistant Professor, Kyiv National University of Trade and Economics (Ukraine) (3.5, 4.5);

Pidlisna Olga, Ph.D in Economics, Kyiv National University of Trade and Economics (Ukraine) (4.5);

Polinkevych Oksana, Ph.D in Economics, Lutsk national technical university (Ukraine) (4.3);

Robul Yuriy, Ph.D in Mathematics and Physics, Assistant Professor, Odesa I.I. Mechnikov National University (Ukraine) (1.6);

Shypulina Yuliia, PhD in Economics, Associate Professor, Sumy State University (Ukraine) (1.3);

Stankova Maria, Ph.D in Economics, Associate Professor, South-West University “Neofit Rilski” (Blagoevgrad, Republic of Bulgaria) (2.5);

Zahvoyska Lyudmyla, Ph.D in Economics, Assistant Professor, Ukrainian National Forestry University (Lviv, Ukraine) (1.1);

Eremeeva Natalia, NGO Committee of justice support (Kyiv-Sevastopol, Ukraine) (1.2);

Gromyko Nikita, CEO of “Waste management systems” (Kyiv, Ukraine) (3.5);

Kornatowski Robert, Meritt Group own brand of WRD Sp. z o.o. (Ltd.) (Republic of Poland) (2.1);

Kravets Lena, Donetsk National University (Ukraine) (1.4);

Lavrov Konstantin, Chernihiv State Institute of Economics and Management (Ukraine) (4.4);

Nichitailova Nelia, Odessa I. I. Mechnikov National University (Ukraine) (2.2);

Pavlenko Ludmila, State Higher Educational Establishment “Ukrainian Academy of Banking of the National Bank of Ukraine” (4.6);

Pidlisnyi Vitalii, Cherkassy State Technological University (Ukraine) (4.5);

Polovska Vira, Ukrainian National Forestry University (2.4);

Sapiński Aleksander, Postsecondary School of Mother Theresa of Calcutta (Żywiec, Republic of Poland) (1.7);

Smolennikov Denys, Sumy State University (Ukraine) (2.6);

Tonkonogaya Iryna, Odessa State Environmental University (Ukraine) (3.3).

The monograph contains the results of research carried out within the framework of fundamental research topics of the University of Economics and Humanities (Bielsko-Biala, Republic of Poland): "Theoretical and applied aspects of sustainable development of an enterprise, region, and society" (registration number 8/9B/10/2013), "Development of scientific and methodological bases of innovation for economic systems' sustainable development" (4/9B/10/2013), "Theoretical and methodological bases for socio-economic systems' development in conditions of globalized economic space" (5/9B/10/2013); as well as research carried out within the framework of fundamental research topics of Economic Theory Department at Sumy State University (Sumy, Ukraine): "Methodology of socio-economic systems in global environment» (0112U004470), “Fundamentals of managing sustainable development of a company, territory, and society” (0113U007870), “Methodology of innovations for sustainable development of business” (0113U007871).

PART 1 THEORETICAL AND METHODOLOGICAL ISSUES OF SUSTAINABLE DEVELOPMENT

1.1 SUSTAINABILITY TRANSFORMATION: CHALLENGES AND INSIGHTS

In the face of huge turbulence, immanent to last decades, necessity to alter business models becomes apparent. It is difficult to be prepared to “expect the unexpected” [31] but business as well as society in the whole has to tackle a set of increasingly arising challenges like climate change, material resource scarcity, population growth and wealth, ecosystem decline, urbanization, deforestation etc. These challenges are global, systemic and interconnected. They are perceived as megaforges over the next 20 years for corporate growth, says KPMG International (2012).

The Rio+20 vision of ‘The Future We Want’ (2012), adopted by 193 countries, discerns the role of a strengthened institutional framework for implementation of the sustainable development agenda. Institutional framework facilitates effective engagement of all stakeholders in the transformation process and has ability to turn around behaviour leading to unsustainable production and consumption. Step by step business, as a crucial stakeholder of the transformation for sustainability process, approaches a vision that nowadays addressing sustainability issues become strategic ally imperative.

This investigation focuses on frontiers of sustainability’s and a business response to sustainability challenges. We consider both world and Ukrainian experience of transition to sustainability and provide insights into entrepreneurs' perception of the process.

1. Frontiers of sustainability: altering global business landscape

Rapidly changing modern world possesses new conditions for doing business which emerge both like new features of the physical world and like new regulations and rules that drive business to the lean and resources with efficient circular business models. International environmental agencies track, provide insights and support sustainability transformations. Thus global sustainability survey the next frontier of sustainability. Walking the Talk on the Sustainability Issues That Matter Most” (2013) [27] by MIT Sloan Management Review (MIT SMR) and The Boston Consulting Group (BCG) provides interesting outlook of the next frontiers of sustainability. Researchers approached slightly less than two thousand executives and managers of commercial enterprises who stated importance of sustainability has remained largely constant since 2010. These enterprises are located around the world and represent a number of

industries. According to findings of this global survey (118 countries) even the most mentioned were economic set of questions, the highest ranks of 28 % got questions of energy efficiency (environmental issues) and employee health and well-being (social issues). Four top economic, environmental and social questions from the lists of priorities are presented on Fig. 1.1. From it one can make a conclusion that executives are mainly oriented on immediate business-related problems with fast and well-articulated returns rather than longer-term public goods like climate change (11%) or economic sustainability of local communities (9%) which bring intangible non-market benefits to a wider range of stakeholders.

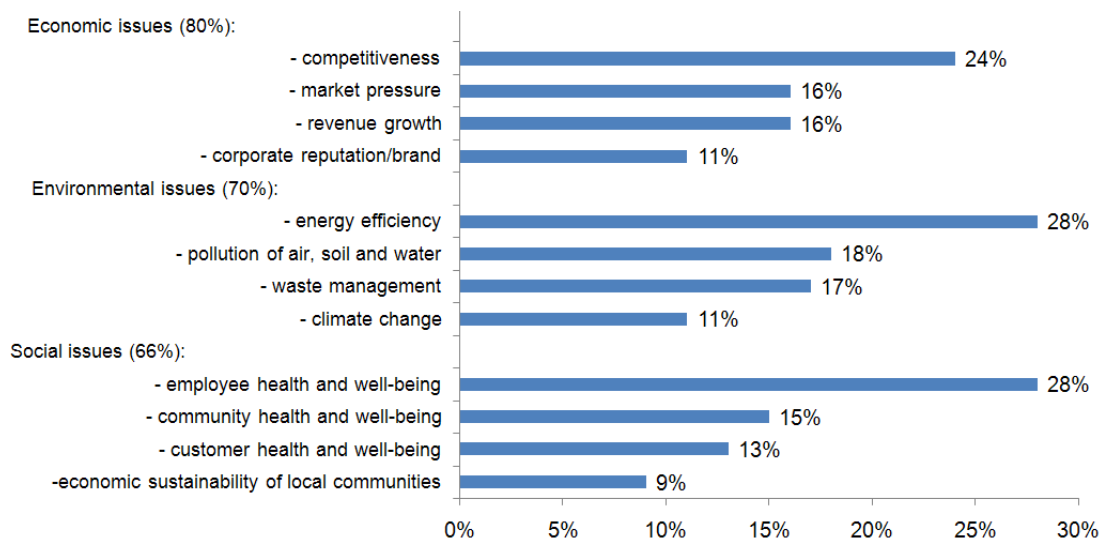


Figure 1.1 – Four top economic, environmental and social questions for enterprises (by categories) [12]

According to abovementioned research by MIT SMR and BCG (2013), 90 percent of respondents consider sustainability strategy as crucial for a long-term competitiveness and viability. But this process takes time and efforts. Nowadays only 10 percent of the respondents state that their companies are fully taken sustainability issues and about 40 percent report addressing them. Scholars consider this phenomenon as some disconnection, gap between stated and revealed behaviour. The highest gap is observed in environmental issues: 70 percent of respondents stated that environmental questions are significant (30 percent) or very significant (40 percent) for them but only 51 percent of respondents declare that their companies are fully (13 percent) or largely (38 percent) addressing the issues. A bit lower gap is reported in economic issues: 78 percent vs. 60 percent accordingly. Social issues gap is estimated as 14 percent.

This phenomenon could be explained by a durability and complexity of transformation processes: tackling of sustainability challenges claims understanding of real world system complexity, the life cycle thinking approach is relevant; network perspective for sustainability

communication strengthening is indispensable. Comparison of whole impact on various assets like ecosystem quality, human health and resource productivity is necessary and it is not always a straightforward task. High level of uncertainty and subjectivity in analysis makes evaluations sensitive to methodology, criteria and data quality.

However the gap between intentions and actions determines rapid growth of negative environmental externalities. Independent environmental research agency TRUCOST together with KPMG International Agency report that "external environmental costs could be account for a considerable proportion of earnings (EBITDA) and thus represented significant business value potentially at stake: across the 11 sectors, the average environmental costs per dollar of earnings would have been approximately 41 cents in 2010" [31].

The TEEB report for Business Coalition "Natural Capital at Risk – The Top 100 Externalities of Business" (2014), co-authored as well by TRUCOST, estimates that "global top 100 environmental externalities are costing the economy world-wide around \$4.7 trillion a year in terms of the economic costs of greenhouse gas emissions, loss of natural resources, loss of nature-based services such as carbon storage by forests, climate change and air pollution-related health costs" [33].

In 2013 for the first time the Natural Capital Leaders Index was launched. This novelty, initiated by TRUCOST, gives insight into companies which are doing the best at decoupling of environmental impact from economic growth [26].

The Materiality Report [32] (2013), authored as well by TRUCOST, proposes methodology for estimation (both in monetary and physical terms) of natural capital costs of a company. Proposed approach facilitates evaluation and reporting, benchmarking and embedding natural capital consideration into strategic and operational decision-making.

To understand how and why companies deal with sustainability transformation and close the gap between stated and revealed behaviour MIT SMR and BCG (2013) focused on the respondents the most sensitive to sustainability issues, i.e. respondents who perceive the issues as very significant. Three groups of respondents were identified according to their engagement into sustainability transformation process. Their features are presented in Table 1.1.

As it can be seen from Table 1.1, the first group 'Walks as it Talks' in a systemic and systematic way integrates sustainability issues into its strategy (a hallmark of the group) and top management agenda. More than half of companies from this group have made relevant correction of their business models. Talkers, unlike to the first group, despite they state that they perceive sustainability issues as very significant for their companies, do not put sustainability in their agenda in a comprehensive and systemic way.

Table 1.1

Synopsis of the companies the most sensitive to sustainability issues [12]

Items	Walkers: activity match beliefs	On the Road: promotion towards sustainability	Talkers: beliefs and actions are out of sync
Level of addressing of all sustainability issues, a company is considered to be significant for it	“fully” or “largely”	engage with some, but not all	“somewhat”, “barely”, “not at all”
A clear articulated sustainability strategy	93%	67%	46%
Permanent attention of top management to sustainability issues	70%	39%	24%
Availability of clear business case for sustainability	69%	37%	20%
Track of progress on social performance	60%	33%	20%
Track of progress on environmental performance	70%	43%	31%
Track of progress on economic performance	79%	60%	43%
Changed business model to address the sustainability issues that matter most	56%	33%	32%
Profitability of transformations, ratio of respondents reported it	60%	n.a.	19%

Their efforts are not enough to tackle the challenge. The third group – ‘On the Road’ – is much advanced almost in all items comparing to the Talkers. The only exception is altering business model in a significant way that discovers some difficulties in systemic coverage of sustainability issues.

According to the report, Walkers are more common in resource-intensive industries like commodity or utilities whereas Talkers prevail in service and technology industries such as media and entertainment. Emerging risks like physical changes, higher competition in resource access, price increases and volatility, and new regulations etc. force companies to light their environmental footprint and to use limited resource in the best way.

Profitability of eco-innovations still remains unclear. Nearly 32% of respondents stated that eco-innovations added to profit and the same share consider the activity as ‘broken even’ whereas 11% find them as ‘subtracted from profit’ [12]. Meanwhile a 2013 sustainability report by Harvard Business School and London Business School indicates that investment of \$1 in a portfolio of ‘high-sustainability’ companies in 1993 gives \$22.6 in 2010 vs. \$15.4 for ‘low-sustainability’ companies that have not voluntarily adopted sustainability corporate policy [6]. However talking about these figures we should remember that financial metrics are not relevant for tracking a broad set of non-market eco-innovation benefits and not all benefits are treated in the cost-benefit analysis.

And last but not least question about drivers of sustainability transformation. MIT SMR and BCG (2013) respondents indicate first of all customers' preferences (more than 50%) and political pressure (43%). Competitors' commitments to sustainability as well as resource scarcity were ranked third in the list of drivers. Deloitte report "CFO Insights Sustainability: Why CFOs are driving savings and strategy" (2012) revealed that chief financial officers (CFOs) are becoming a key player because they "realize that a sustainability lens can improve enterprise risk management, including physical asset, compliance, supply chain and reputation risk. CFOs have seen improved profitability from early investments in resource efficiency. They anticipate revenue generation opportunities from new business lines, new markets and new product features. Increasingly, they respond to investors, lenders, insurers, raters and customers who seek sustainability performance data. These finance leads foresee pending government regulations and embrace innovation as means to go beyond value protection to value creation. Sustainability gives CFOs the chance to bridge their steward and strategy roles to future-proof their companies and enhance shareholder value" [29]. Recent information on penalties for Chevron and Southwest Gas that have been fined about \$1 million for violating California's mandatory greenhouse gas emissions reporting rules [30] could serve as a good proof for abovementioned CFOs insight.

All these trends prove that in rapidly changing world modern business transforms towards more conscientious and responsible agent of sustainability. International regulations effectively alter the global business landscape and force the process.

2. Transition to sustainability: attitudinal insight into Ukrainian entrepreneurship landscape. Analysis of sustainability transformation in Ukrainian business landscape indicates that although national environmental policy is weak and slow [10] sustainability regulations, aroused on the global level, force Ukrainian entrepreneurship to shift their activity toward sustainability. As it was noticed for the global context, resource-intensive industries and enterprises, whose customers, driven by international regulations, claim a disclosure of legitimate origin of raw materials or products or its correspondence to certain standards, demonstrate the most comprehensive and systemic approach. Ukrainian export-oriented enterprises struggle to shape their business models in environmentally-sound style. T. Galushkina (2000), L. Maksymiv and M. Shpek (2010), Kurdyna O. (2005), Yu. Chala (2006) et al. [19; 23, p.126–130; 22, p. 211–215; 24] provide the overview of successful business cases on environmental management systems introduction at Ukrainian enterprises.

2013 report by Kyiv Centre for Corporate Social Responsibility Development [28] provides an insight into Ukrainian enterprises' involvement into Global Reporting Initiative. Experts note that remarkable trend of 2012 had progress of corporate social responsibility (CSR).

Growing number of companies establishes CSR manager positions, initiates more large-scale and systemic CSR projects, prepares and releases their non-financial reports.

Universities react as well and introduce CSR courses in bachelor and master programs. CSR trends are represented in Table 1.2. Targeted trends for CSR are: growing business responsibility for whole value-added chain, clearer focus on stakeholders and a broader communication of CSR activity.

Shift of business landscape toward sustainability is especially noticeable in forest and wood-processing industry where quite a few Ukrainian enterprises are subsidiary companies of European ones. The European Union timber regulation No. 995/2010/EC which gives new impetus to the process of wood-based products greening. Ukrainian wood-processing and forest enterprises introduce high quality standards, certify their management and products and propagate sustainability through own environmental policy.

Table 1.2

Synopsys of 2012 CSR development trends in Ukraine [28]

Positive trends	Negative trends
<ul style="list-style-type: none"> • Spreading of CSR practice • Improvement of CSR management policy: <ul style="list-style-type: none"> - systematization and complexity of projects (combination of several initiatives within unified projects) - development of indicators for evaluation of a project performance effectiveness - planning within projects • Activation of corporate volunteering movement • Integration of CSR into business strategies of companies • Increasing number of ratings and benchmarking in the field of CSR • Creation of CSR education and training 	<ul style="list-style-type: none"> • Low level of CSR awareness and knowledge of CSR principles, including level of the top management • Insufficient use of quantitative indicators that facilitate trekking and comparison • Unbalanced presentation of information in CSR reports • Weak presentation of interaction with stakeholders • Lack of clear targeting on certain stakeholders, sometimes very technical texts of reports • Existence of rather big quantity of charitable, image-building projects which are presented as CSR projects

Forest sector should be very sensitive to real world changes and respond them because it is featured by such peculiarities:

- Forests ecosystem goods and services are in the same time inputs and outputs of the forest sector;
- Forests ecosystem services [11] are highly multifunctional. They are very demanded by different types of economic and non-economic activities. So often demand for different forest ecosystem services is contradictive and mutually exclusive;

- Forest ecosystem services are vital but out of market transactions therefore markets cannot provide an incentive to produce them or even to signal their scarcity;
- Deforestation and forest degradation cascade in a dangerous chain of environmental degradation up to climate change. Climate change impacts forests but they can mitigate the change;
- Wisdom and lean use of wood could contribute a lot to environmentally sound development, to improvement of human well-being;
- Life cycle thinking and closed production cycles could become a real instrument to deal with worn-out or out of use wooden artifacts to avoid additional GH-gases emissions caused by landfilling wooden ones and to ensure cascading or down-cycling of wooden materials.

These reflections should be integrated into altered business models of forest and wood-processing enterprises and this challenge should be well-articulated in the rapidly changing ecological and institutional environments.

Understanding that micromotives induce macrobehavior [16], we conducted a research to shed light on attitudes towards environmental policy immanent to managers and executives of Ukrainian forest and wood-processing enterprises. Identification and clustering of attitudinal diversity of respondents' views result in a cognitive map that provides us with an attitudinal profile for each group. Discovering each respondent's subjective attitude we obtain a real set of attitudes, their description and explanation [14, p. 116–133; 20, p. 105–113]. This information is highly useful for analyzing and reinforcing sustainability shift.

To get insight into a staff attitude we applied Q-methodology [17, p. 269–272; 4, p. 561–567; 13, p. 77–86]. This method is “a systematic and rigorously quantitative means for examining human subjectivity” [17], reflected in formal models of attitudes, so called Q-sorts. Each respondent develops own Q-sort ranking the set of Q-statements which was constructed in a special way to cover a whole discourse of the issue under consideration. Applying factor analysis to correlation matrix, estimated for a set of Q-sorts, provides researchers with clusters of attitudes and statistically significant Q-statements for each cluster.

With significant level of 0.05 three groups of views on the enterprises' environmental policy were identified (Fig. 1.2). The "Radical ecologists" group (covers 50.5% of total variation of views) and "Pragmatists" group (15.3% correspondingly) are mutually exclusive and quite categorical in their arguments. "Radical ecologists" consider environmental policy important and useful instrument to improve quality of the environment and enterprises' image. "Pragmatists" group is concentrated only on a profit. Group of "Sceptics" (7.2% of total variation) stated that a

negative impact of wood-processing enterprises on the environment is negligible and therefore there is no need to pay attention on environmental policy and environmental impact of the industry [21, p. 202–210].

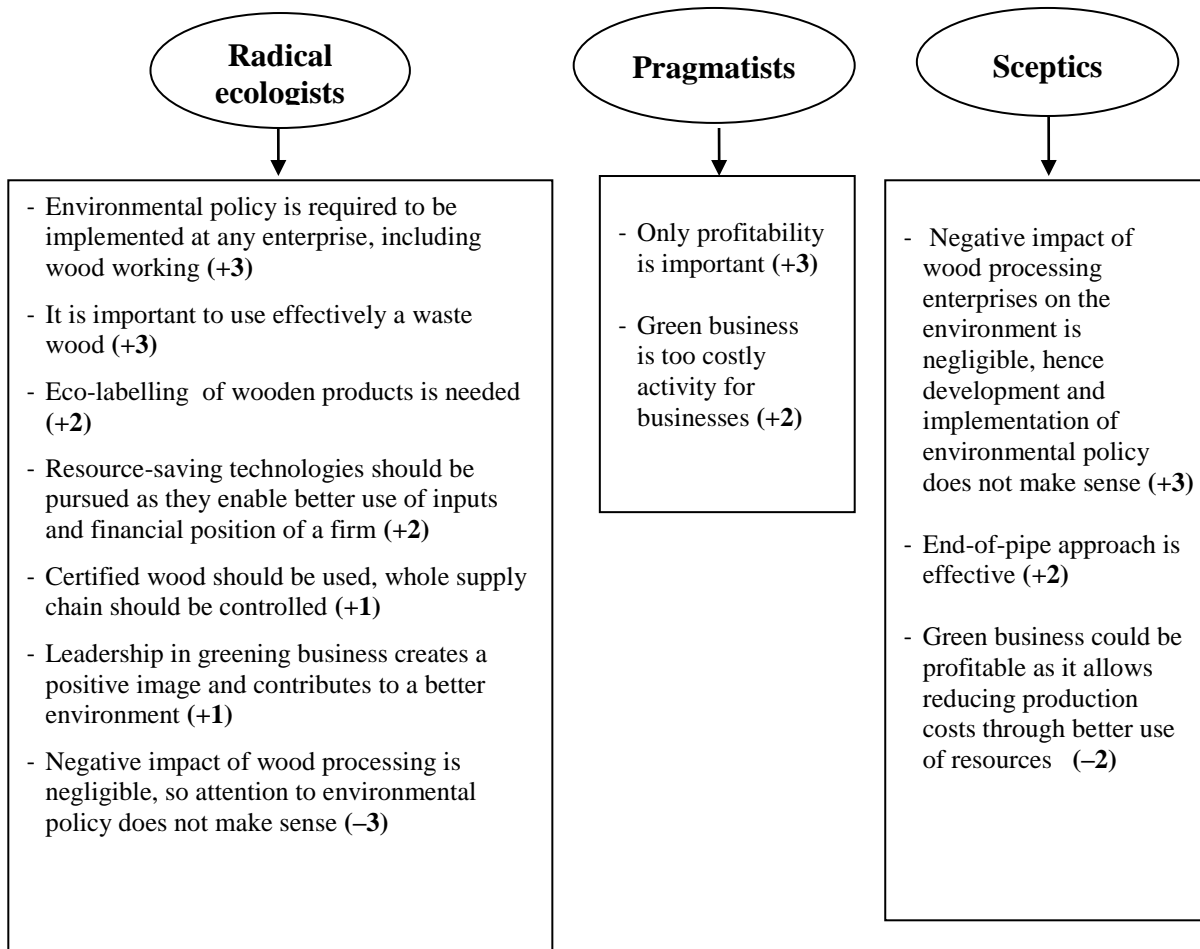


Figure 1.2 – Cognitive map of wood-processing enterprises staff views on enterprise environmental policy. The number in parentheses reflects statistically significant estimation of a specific group’s attitude to a certain Q-statement. These estimations vary from (+3) that means maximum approval to (–3), that means extreme rejection. Level of statistical significance equals to 0.05. [21, p. 202–210]

A little bit similar approach was designed for investigation of Swedish forest owners’ value profiles [15, p. 188–200]. Scholars identified four groups of values: consumptive and non-consumptive direct use values, indirect use values, and non-use values such as natural and cultural heritage according to total economic value structure. Clustering of forest owners’ attitudes toward targeting values of forest management allowed researchers to identify four main forest owner categories.

The value profiles of non-industrial forest land owners and of municipalities cover all four abovementioned value categories. However the forest companies focused on wood production and the Swedish Environmental Protection Agency focuses on nature protection.

Finalizing investigation on behavioural insight into Ukrainian entrepreneurship landscape we conclude that Ukrainian enterprises have developed advanced business cases for sustainability, demonstrate responsible environmental policy as well as sustainability-driven views of employees. But these business cases of sustainability still have a sporadic character and therefore their circulation as well as knowledge of sharing matters.

3. Applying networks approach for investigation of sustainability dissemination. To achieve broad sustainability entrepreneurs should extend boundaries of their activity, cooperate with government, policy-makers and policy-takers because so often sustainability solutions are so often out of enterprises scope. Acting together companies can provide more effective, sophisticated and systemic solutions across the whole value chain. MIT SMR and BCG (2013) highlights this trend and evaluate it.

Economic clusters could serve as an efficient form for collaboration on sustainability. Clusters increase efficiency of enterprises activity and facilitate dealing with a numerous institutional and technological difficulties implicit to emerging processes. Ukrainian forest and wood-processing enterprises created several clusters [8] and cooperate for forest management and product certification.

As it was mentioned before forest clusters should operate as a lean consumer of a timber because forest harvesting means loss of numerous forest ecosystems services which are vital for a human-being. Enterprises face increasing competition for the primary raw material and high price volatility, loss of forest ecosystem quality and necessity to violate deforestation. Forest products have a lot of carbon benefits: the greenhouse gas intensities of many of forest products are much lower than GHG-intensity of alternative ones. Moreover, wooden products depose carbon as long as they serve for human needs. With these ideas in minds forest clusters work in the mainstream of Europe's "20/20/20" climate and energy goals and green economic growth targets [25].

Dominating economic theory of market equilibrium and unlimited resources, as well as conventional business models, based on this paradigm, turned out to be of limited help to predict approaching financial crisis and to avoid it. The same is relevant for environmental crises. Consequences, resulting from unsustainable behaviour, can change our life quite seriously. Recent financial crisis can serve as a good example of how events can cascade and information technologies and social nets can reinforce the processes and expand them in no time.

Complexity economy successfully deals with this challenge. Under complexity economy paradigm clusters can be treated as networks of agents that operate on a meso-level. The complex systems approach seems to be a robust background that brings a fresh and adequate view on economic systems as a complex evolving entity of coupled networks of interacting agents: consumers, producers, investors, firms, banks, and agencies. These agents are not necessary in equilibrium but instead mutually create economic system and simultaneously adjust themselves to aroused situation bringing new products and services, investments, prices, technologies, institutions etc. [1]. According to complexity economics [2, p. 107–109] economy can be seen as “a massively parallel system of concurrent behaviour” in perpetual motion [3]. Under such approach meso-level of economic system becomes very important [5; 7, p. 843–858] whereas economics does not focus on it.

If we consider wood-processing cluster as a network of acting and interacting agents which are driving by legal and institutional environment and permanently changing it and themselves under the influence of these changes, we can model and understand how sustainability innovations can involve whole cluster, what drivers will be efficient to intensify the process of sustainability shift. Three phenomena emerging on a meso-level: self-reinforcing asset-price changes, clustered volatility and sudden percolation [3] can shed light on the process.

It is important to understand which model of the network structure the clusters use: random, “small world” or regular [18, p. 440–442], because each of them generates different patterns of complex behaviour even if they have the same number of vertices and edges. To evaluate potential of networks and of real interactions for sustainability practice dissemination we have to examine cluster from a frequency of interaction point of view. A systematic survey and mapping of actions and interactions (entanglements) between cluster agents will visualize the network structure and potential. In-depth analysis of the networks’ structural characteristics and their correlation (if any) with qualitative attributes (like environmental policy availability, its advance and correspondence to international standards etc.) enables comprehension of the process dynamics and governance.

Rapidly changing physical world, emerging risks and opportunities pose challenges for business and economics. Multitrillion dollar natural capital risk underlies urgency of transition to green economy. A remarkable rise of cleantech-related ventures against the backdrop of crisis proves that concern surrounding the environment and climate change coupled with the “green stimulus package” is driving resources and top innovations to this sector of economy.

Nowadays sustainability becomes competitive. Material sustainability issues have become its next frontier, because they create a core of business competitiveness and its long-term

viability. Therefore sustainability metrics should be developed to facilitate tracking of the shift and to assess financial and non-financial outputs. SWOT analysis of an enterprise sustainability strategy will make the progress straightforward, beneficial and attractive.

As environmental agencies report some companies have already achieved a success, other ones yet demonstrate their commitments but still should bridge the gap between intentions and actions. Emerging risks and opportunities, new markets and regulations will intensify changes in business landscape.

Evolutionary perspective on economic systems and their institutional frameworks explains logic of the process development. From this perspective the most interesting phenomena arise on a meso-level. Formation of clusters is an example of the self-organisation phenomenon, which arise on a meso-level. Sustainability innovations launched by individuals' attitude, firms' environmental policy or (inter)national/global regulations spring up and spread in systems and change them undergoing changes in turn. Understanding of the transition process from the standpoint of system dynamics gives possibility to tackle sustainability challenges in efficient way.

1. Arrow, K., Anderson, P., Pines, D. (1988), *The Economy as an Evolving Complex System*, Reading, Ma.: Addison-Wesley.
2. Arthur, W. B. (1999), *Complexity and the Economy*, Science 284.
3. Arthur, W. B. (2013), *Complexity Economics: A Different Framework for Economic Thought*, Santa Fe: SFI.
4. Brown, S. (1996), Q methodology and qualitative research, *Qualitative Health Research*, 6(4).
5. Dopfer, K. (2007), *The Pillars of Schumpeter's Economics: Micro, Meso, Macro*. In: Hanusch and Pyka (eds.), *Elgar Companion to Neo-Schumpeterian Economics*, Cheltenham: E. Elgar.
6. Eccles R. G., Ioannou I., Serafeim G. (2013), *The Impact of Corporate Sustainability on Organizational Processes and Performance*, Working Paper, Harvard: Harvard Business School.
7. Elsner W., Heinrich T. (2009), *A Simple Theory of 'Meso' on the Co-evolution of Institutions and Platform Size*, *Journal of Social-Economics* 38.
8. Kiiiko O., Yakuba M., Voitovych I. et al. (2008). *Cluster analysis of the forest and wood based on industries of the Carpathian region of Ukraine and recommendations for cluster management*, Lviv: UNFU.
9. KPMG (2012), *Expect the Unexpected: Building of business value in a changing world*.
10. Law of Ukraine "On main principles (policies) of the State Environmental Policy of Ukraine for 2020" dated 21 December 2010, N 2818-VI.
11. *Millennium Ecosystem Assessment (2005), Ecosystems and Human Well-being: Synthesis*, Washington, DC: Island Press.

12. (MIT SMR, BCG) MIT Sloan Management Review, Boston Consulting Group (2013), Sustainability's Next Frontier: Walking the Talk on the Issues That Matter Most. December 17, 2013 by D. Kiron, N. Kruschwitz, H. Rubel, M. Reeves, and S.-K. Fuisz-Kehrbach.
13. Nizhnik M., Zahvoiska L., Ode A., Nizhnik A. (2009), Public evaluation of landscape content and change: Several examples from Europe, *Land Use Policy* 26.
14. Nihnik M., Oskam A. (2004), Governance in Ukrainian forestry: trends, impacts and remedies, *International Journal of Agricultural Resources, Governance and Ecology*, vol. 3.
15. Richnau G., Angelstam P., Valasiuk S., Zahvoyska L., Axelsson R., Elbakidze M., Jönsson I. Soloviy I. (2013), Multi-faceted total economic value profiles of forest owner groups in South Sweden: the River Helge å catchment as a case study, *Ambio* 42(2).
16. Schelling T. (1978), *Micromotives and Macrobehavior*, Norton.
17. Stephenson W. (1963), Independency and operationism in Q-sorting. *Psychological Record* 13.
18. Watts D. J., Strogatz S. H. (1998), Collective dynamics of 'small-world' networks, *Nature* 393.
19. Галушкіна Т. П. (2000), *Економічні інструменти екологічного менеджмента (теорія і практика)*, Одеса: ИПРЭИ НАН України.
20. Загвойська Л. Д., Ліницька Л. М. (2011), *Оцінка схильності виробників до запровадження стратегії чистішого виробництва. Економіка природокористування і охорони довкілля*, Київ: Державна установа «Інститут економіки природокористування та сталого розвитку Національної академії наук України». Ін-т економіки природокористування та СР.
21. Загвойська Л. Д., Петрук М. О. (2012), *Готовність деревообробних підприємств Рівненщини до вдосконалення екологічної політики: погляд зсередини*, Наукові праці Лісівничої академії наук України: зб. наук. пр., 10, Львів: РВВ НЛТУ України.
22. Курдина О. О. (2005), *Система екологічного менеджменту: принципи формування і впровадження*, Науковий вісник: Екологізація економіки як інструмент сталого розвитку в умовах конкурентного середовища: зб. наук. пр., 15.7. Львів: НЛТУ України.
23. Максимів Л. І., Шпек М. В. (2010), *Інтегровані системи екологічного менеджменту на підприємствах лісового сектору. Матеріали третьої міжнародної науково-практичної конференції «Захист навколишнього середовища. Збалансоване природокористування»*, Львів: НУЛП.
24. Чала Ю. В. (2006), *Формування системи екологічного менеджменту на підприємствах*, Запоріжжя: ЗДУ.
25. http://ec.europa.eu/clima/policies/brief/eu/package_en.htm. / [Access: January 26, 2014].
26. http://info.greenbiz.com/rs/greenbizgroup/images/state-green-business-2014.pdf?mkt_tok=3RkMMJWWfF9wsRolva3NZKXonjHpfsX57ewlXaOwlMI%2F0ER3fOvrPUfGjI4CT8FII%2BSLDwEYGIv6SgFSLHEMa5qw7gMXRQ%3D / [Access: January 26, 2014].
27. http://sloanreview.mit.edu/projects/sustainabilitys-next-frontier/?utm_source=BCG&utm_medium=referral&utm_campaign=sustdec13 / [Access: January 26, 2014].
28. http://www.csr-ukraine.org/day_by_day/corporate_social_responsibility_2012.html?lang=en / [Access: January 26, 2014].

29. http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/CFO_Center_FT/us_cfo_cfoInsights_sustainability_091312.pdfUnitedStates/Local%20Assets/Documents/CFO_Center_FT/us_cfo_cfo-Insights_sustainability_091312.pdf / [Access: January 26, 2014].

30. <http://www.environmentalleader.com/2014/01/28/chevron-southwest-gas-fined-1m-for-not-reporting-ghg-emissions/> / [Access: January 26, 2014].

31. http://www.kpmg.com/dutchcaribbean/en/Documents/KPMG%20Expect_the_Unexpected_ExtctveSmmr_y_FINAL_WebAccessible.pdf / [Access: January 26, 2014].

32. http://www.trucost.com/_uploads/downloads/TheMaterialityReport.pdf / [Access: January 26, 2014].

33. <http://www.trucost.com/news-2013/175/teeb-for-business-coalition-study-shows-multi-trillion-dollar-natural-capital-risk-underlying-urgency-of-green-economy-transition> / [Access: January 26, 2014].

1.2 SECTORIAL ISSUES OF RIO CONVENTION OBLIGATIONS IMPLEMENTATION IN NATIONAL SUSTAINABLE DEVELOPMENT POLICY OF UKRAINE

The research is consistent with Ukraine's commitments to the global environment management and to plans responding to multilateral agreements. Several strategic documents adopted by Ukraine's highest authorities acknowledge the broad range of serious environmental problems faced by the country. Ukraine completed its National Capacity Self-Assessment (NCSA) in 2006 [1]. There were marked out the following gaps, which became the keystones for represented research:

- Global environmental action plans are not mainstreamed into national and regional policy planning;
- Environmental conventions and integrated resource management are not addressed at regional and local levels;
- Support to integrating the Rio Convention into the national natural resource management legal frameworks is needed;
- There is a need for a national sustainable development strategy.

Ukraine's environmental challenges are significant and present one of the most complex areas for the country to address given the pressures of rapid economic growth and social transition.

Despite a considerable progress achieved in the past years, Ukraine's environment still remains in a critical state.

Ukraine is one of the world's most energy intensive countries as a result of inefficient technology and practices in key economic sectors, such as energy and heavy industry.

Ukraine's current system of environmental governance is not effective largely due to:

insufficient political commitment; unrealistic and inarticulate objectives; insufficient levels of financing; weak technical and institutional capacities; and poor monitoring and evaluation.

The problems related to global environmental management are rooted in an overall institutional weakness of governance, including environmental governance, in Ukraine. There were identified the following major shortfalls:

- Lack of awareness amongst the Ministries and other state bodies on the international conventions and of the opportunities they provide, as well as of the steps required from Ukraine to fulfil its commitments;

- Weak institutional arrangements for the implementation of the Conventions;
- Poor financing and lack of appropriate human resources in governmental institutions;
- Lack of consistency and insufficient sharing of information between key stakeholders.

There is currently little communication across agencies responsible for the Conventions in Ukraine. This is linked to low commitment to follow up on identified priorities, and to the lack of a strong policy framework and political commitment to implementation;

- The need to integrate international objectives into national and local environmental action plans. The poor ability of the government to carry out strategic planning. This is primarily related to two factors: first, the lack of up-to-date social, economic and environmental data to support the strategic planning process; and second, lack of communication and coherent regulations establishing the framework for preparing and implementing of integrated sustainable planning.

In the framework of represented research we are focused on the environmental economics and regulatory and legal aspects of implementation of the Rio Conventions key positions.

The aim of research is assessment of sectoral issues of international obligations implementation in framework of sustainable development policy of Ukraine in context of the selected Rio Conventions.

Sustainable development methodology were investigated by wide range of researches in framework of humanic and technical aspects. All researches connected with sustainability have interdisceplenary character. We can mention technological approaches (Daly H. [2], Montpellier Vt. and Sody F. [3], entropy of development [4], evolution economy by Boulding K. [5], nature capital (Hawken P., Lovins A., Lovins L. [6], and Hryniv L. [7]) and common resources by Harding G. [8]. There is not exhausted list of issues. In Ukraine problematic sustainability of social-economic development were developed by Andreeva N. [9], Bystriakov I. and Khvesiyk M. [10], Khlobystov Iev. [11], Mishchenko V. [12], Pashentsev A. [13] and Zharova L. [14].The legal block of researchers represented by Shemshuchenko Yu. [15],

Hetman A. [16] and Malysheva N. [17]. Otherwise these results were received in rather stable situation, but political and economic crises persuade to indicate principal problems and choose measures according to modern situation. Proposed study is grounded on continuation of previous authors' researches devoted to institutional, law and macroeconomic aspects of environmental policy [18–21]

Regulatory and legal issues. The national regulatory and legal framework for environmental economics comprises the Constitution of Ukraine, Law of Ukraine on the Environmental Protection, Land Code of Ukraine, Forest Code of Ukraine, Water Code of Ukraine, Code of Ukraine on Subsoil Resources, and specialized laws governing the management of various types of natural resources (Laws of Ukraine on the Ambient Air Protection, and on the Nature Reserves and Protected Areas of Ukraine), specialized integrated laws (Laws of Ukraine on the State Review and the Environmental Emergency Zone) and various bylaws and regulations in the area of environmental protection and sustainable management of natural resources. These laws and regulations also delineate powers and responsibilities between the central and regional authorities in order to ensure environmental safety.

The Law of Ukraine on the Fundamental Principles (Strategy) of the State Environmental Policy Until 2020 along with the 2011–2015 National Environmental Action Plan developed in line with the Strategy constitute a comprehensive strategic document designed to support the implementation of the national environmental policy within the framework of the sustainable development concept.

According to the Law of Ukraine on the Fundamental Principles of the National Security of Ukraine (Article 8), implementing of measures aiming to reduce the adverse impact of global environmental issues on the environmental safety of Ukraine; expanding participation in the international cooperation on these issues; introducing modern environmentally safe resource- and energy-saving technologies are considered to be among the key priorities of the national security policy. Ukraine is an active participant in the international environmental cooperation, being a sovereign party to 26 multilateral international treaties and 3 protocols concerning the environment, including three conventions known as the Rio Conventions adopted during the Earth Summit on Sustainable Development held in 1992 in Rio de Janeiro (Brazil).

However, it has become obvious in the 21st century that existing agreements are no longer sufficient and that implementation is the main issue affecting the efficient operation of international standards in concerning the global environment. In other words, if the main focus of the international community before 2000 was to adopt the international conventions, after 2000 it shifted to ensuring of their implementation [15; 26].

A suite of the Rio Conventions comprises the UN Convention on Biological Diversity (CBD), United Nations Convention to Combat Desertification (UNCCD), United Nations Framework Convention on Climate Change (UNFCCC). The analysis of the regulatory system maintained by the Ministry of Economic Development and Trade of Ukraine becomes particularly relevant in the context of approaching toward the implementation of the Rio Conventions within the framework of the national sustainable development policy. This analysis of laws and regulations concerning the environmental economics was aligned along the following main axes representing sectoral activity areas:

- Strategic planning;
- Technical regulation;
- Economic situation and macroeconomic forecasting;
- Trade development;
- Financial policy;
- Cooperation between Ukraine and European Union.

SWOT analysis. SWOT analysis has been done for three Rio Conventions: Convention on Biological Diversity, Framework Convention on Climate Change, Convention to Combat Desertification.

The UN Convention on Biological Diversity (Rio de Janeiro, 1992) ratified by Ukraine in 1994 is an international treaty concerning the conservation of biological diversity, sustainable management and fair and equitable sharing of benefits arising from genetic resources. This objective should be achieved through research and development of instruments, incentives and processes, transfer of technologies and practices, and full and active engagement of relevant stakeholders including local communities, youth, NGOs, women and business. The obligations of the parties regarding the protection of biological diversity against potential risks caused by the genetically modified organisms resulting from modern biotechnology are set out in the Cartagena Protocol on Biosafety. Results of analysis is summarised in tables 1.3 and 1.4.

The UN Framework Convention on Climate Change (New York, USA, 1992) ratified by Ukraine on 29 October 1996 has had a profound influence on the development of our country and its performance of international obligations. The objective of the Convention and all related laws and regulations are stabilizing the greenhouse gas concentrations in the ambient air at the levels that prevent and avoid any hazardous anthropogenic impact on the climate system [22]. SWOT analyses are represented in the tables below.

The UN Convention to Combat Desertification (Paris, 1994) aims at consolidating of global efforts taken to combat various types of land degradation due to both natural and

anthropogenic factors. The desertification is currently considered as one of the most dangerous environmental degradation processes on the global scale. It poses a threat to health and subsistence of over 1 billion people. Annual loss of agricultural crops due to desertification and drought is estimated at 42 billion USD. Drought is understood as an extended period when a region suffers from a deficiency in precipitation which is exacerbated by the elevated air temperature and low moisture levels and results in the soil moisture deficit causing, in its turn, damage to or loss of harvest. According to information released by the UN General Assembly, desertification and drought affect one third of the area of the planet with over one billion of people facing a threat of having to live in a desert [23]. Results of analysis is summarised in the tables 1.3 and 1.4.

Table 1.3

Aggregated result SWOT-analysis for Rio Conventions (Strengths and Weaknesses)
 [Author's adaptation based on 2; 20; 23]

STRENGTHS	WEAKNESSES
1	2
UN Convention on Biological Diversity	
<ul style="list-style-type: none"> • Strategic planning area is passing the Law on the Fundamental Principles (Strategy) of the State Environmental Policy until 2020; • Presence of a suite of regulations concerning the nature reserves and protected areas (NRPA) and natural resource cadastres that can be adapted to meet modern needs; • Legislated sanctions that are in place to prosecute environmental law offenders; • Launch of the national implementation process for the Biodiversity Convention and Nagoya Protocol (the international cooperation mainly focuses on the conservation of biological diversity in the Ukrainian Carpathians). 	<ul style="list-style-type: none"> • Lack of the implementation action plan that takes account of current critical situation and budget cuts reducing the policy implementation budget; • Inadequacy of national legislation on protected areas and regulations on nature resource cadastres in terms of their ability to respond to modern challenges; • Lack of proper consideration of the ecological status of protected areas and sites and insufficient economic assessment of costs entailed in improving of the environmental situation; • Lack of incentives encouraging the sustainable management of biological diversity in the sectoral programmes and plans; • Inadequate rates used to evaluate damage arising from the breach of environmental legislation and compensations; • Lack of tax incentives encouraging the biodiversity conservation initiatives; • Delays with establishing of the transboundary ecological networks for ensuring the conservation of biological diversity.

Table 1.3 continuation

1	2
UN Convention on Biological Diversity	
<ul style="list-style-type: none"> • Provisions of the Convention in the national sustainable development policy include the adoption of the National Action Plan on the Implementation of the Provisions of Kyoto Protocol to the UN Framework Convention on Climate Change (2005); • Laws and regulations setting out the application procedures for the Joint Implementation and emission trading mechanisms; • Establishment and annual update of the national inventory of anthropogenic emissions; • Establishment of the automated information management system on greenhouse gas emissions and sinks (national inventory); • Experience in using of financial mechanisms provided in the Protocol; • Establishment of the environmental tax system including pollutant emission taxes; and bilateral cooperation with the EU member countries at the intergovernmental and sectoral levels. 	<ul style="list-style-type: none"> • Lack of the national climate protection strategy and regional plans; lack of legislation governing the implementation of the Convention – this issue is only addressed in bylaws and regulations; unfinalised national greenhouse gas emission inventory and permitting system for industries and sectors; • Lack of economic assessment of greening opportunities for the national economy; • The fact that greenhouse gas emission reductions are not taken into account in the social and economic development forecasts and programmes; • Lack of domestic emission trading system; lack of incentives encouraging initiatives aiming to mitigate the consequences of climate change; • Lack of agreements and treaties concerning the implementation of the clean development projects within the framework of the Kyoto Protocol (Article 12); uneven distribution of the joint implementation projects across the regions of the country.
UN Convention to Combat Desertification	
<ul style="list-style-type: none"> • National Environmental Policy Strategy until 2020 addresses the land degradation issues by setting of the sustainable land management objectives; • System of laws and regulations designed to combat land degradation and achieve the sustainable land management objectives is in place including a specialized Law of Ukraine on the Conservation of Land; • The land degradation issues are reflected in the 2011-2015 National Environmental Action Plan. Another positive moment relates to the practice of bilateral cooperation to combat desertification with various countries (e. g. Argentina). 	<ul style="list-style-type: none"> • Lack of the national soil conservation and restoration programme; the fact that legal provisions concerning the prevention of land degradation are scattered throughout numerous regulations that have different legal force and subject matter; • Lack of legally defined land value and quality criteria; • Lack of established permitting procedures for those activities that may cause the degradation of land including a system of mandatory minimum requirements to be included in the permits; • A technique for evaluating and setting of adequate sanctions for actions that cause the deterioration of valuable land is similarly lacking. Ukraine needs to establish stronger cooperative relations with other countries in the area of combating desertification.

Table 1.4

Aggregated result SWOT-analysis for Rio Conventions (Opportunities and Treats)

[Author's adaptation based on 6; 20; 23]

OPPORTUNITIES	THREATS
1	2
UN Convention on Biological Diversity	
<ul style="list-style-type: none"> • Identification of the Action Plan priorities for the state environmental policy strategy; • Development of provisions enabling the adaptation of the Convention provisions to existing conditions at the national level in a manner that takes account of opportunities offered under the public-private partnership mechanism and cooperation between Ukraine and EU; 	<ul style="list-style-type: none"> • Budget cuts affecting spending for the implementation of the national environmental policy strategy; • Premature termination of the 2015-2020 State Target Biosafety and Biological Protection Programme;

Table 1.4 continuation

1	2
UN Convention on Biological Diversity	
<ul style="list-style-type: none"> • Legislate incentives encouraging investment and innovation in the area of sustainable biodiversity management including, for example, zero income tax rates for activities aiming to support and enhance the biological diversity; • Optimizing of funding arrangements for the regional natural resource inventories through the attraction of those funding sources that are eligible under the existing legislation; • Setting of tax rates in a manner that takes account any disturbances to the protected ecosystems; • Developing of regional social-economic development forecasts and programmes on the basis of a comprehensive environmental analysis of sites and facilities that pose threat to the environment; • Strengthening of bilateral and multilateral cooperation for financing the biodiversity conservation initiatives. 	<ul style="list-style-type: none"> • The fact that the regional inventories are only maintained for certain types of natural resources and take no account of resources concentrated in the biotic corridors; • Insufficient funding for the regional natural resource inventories; • Inadequate tax rates used to evaluate compensation for damage caused by the breach of the environmental legislation and Convention provisions pertaining to the ecosystem integrity; • Lack of incentives for businesses to maintain and enhance biodiversity when doing business; • Lack of complete data for those sites and facilities that pose a threat to the protected areas.
UN Framework Convention on Climate Change	
<ul style="list-style-type: none"> • Establishing of a green investment management mechanism to include the identification of investment priorities and mechanisms ensuring the appropriate use of investment funds; • Developing and adopting of the National and regional plans for adapting the greenhouse gas emission reduction plans to the climate change; • Mainstreaming climate change in the sectoral and ministerial programmes, plans and strategies; • Adopting of a law regulating legal relations in the area of climate change and providing with relevant legal and institutional arrangements, greenhouse gas emission rules and regulations; • Maintaining of the national greenhouse gas emission trading market; and establishing a system of tax incentives encouraging emission reduction measures. 	<ul style="list-style-type: none"> • The majority of actions identified in the National Plan remain unimplemented; lack of legislative framework for the implementation of the Convention; • Implementation priorities are largely limited to the joint implementation projects and emission trading; • Lack of incentives encouraging initiatives designed to mitigate the consequences of climate change by addressing the issue of greenhouse gas emissions and sinks.
UN Convention to Combat Desertification	
<ul style="list-style-type: none"> • Development of the State Target Programme to Combat Desertification and Land Degradation; • Introduction of economic incentives encouraging the sustainable management and conservation of land including tax and loan preferences for those who implement actions identified in the state and regional land management and conservation programmes, and develop, transfer and introduce technologies designed to combat land degradation; • Exempting from tax those land areas that are used for agricultural purposes or undergo rehabilitation in line with the state or regional programmes; • Establishing of an environmental insurance system; introducing of the 'polluter pays' principle for those land users who cause environmental damage or risk thereof to ensure that they bear all associated damage prevention or restoration costs; • Introducing of a procedure for assessing environmental damage or likelihood thereof. 	<ul style="list-style-type: none"> • Lack of application of incentives designed to promote the sustainable management and conservation of land; • Lack of economic mechanisms and legislative framework for developing of the environmentally sustainable agricultural landscapes and land use systems; • Lack of regular monitoring of soil quality and fertility; • Flawed material liability system for remedying of damage caused by the breach of the sustainable land management standards.

Gap-analysis. Summarizing the analysis of gaps, the following conclusions can be drawn (table 1.5):

Table 1.5

Basic gaps aggregated for Rio Conventions formalised under SWOT-analysis' form

[Author's adaptation based on 2; 20; 23]

STRENGTHS	WEAKNESSES
1	2
<p>1. The law approving the Fundamental Principles of the State Environmental Policy (Strategy) until 2020 passed. A suite of regulations on protected areas and natural resource inventories that can be adapted to meet current needs are in place.</p> <p>2. The National Action Plan on the Implementation of the Kyoto Protocol to the UN Framework Convention on Climate Change (2005 p.) and regulations governing the use of the joint implementation and emission trading mechanisms are in place.</p> <p>3. A suite of regulations on protected areas and natural resource inventories that can be adapted to meet current needs are in place.</p> <p>4. A system of regulations designed to ensure progress toward achieving the sustainable resource management objectives is in place and can be adapted to meet current needs. Economic sanctions have been adopted to prosecute environmental law offenders.</p> <p>5. The national inventory of greenhouse gas emissions and sinks have been established.</p> <p>6. Experience in using of the Kyoto Protocol financial mechanisms is available.</p> <p>7. A system of environmental taxes including air emission taxes is in place.</p> <p>8. Bilateral cooperation agreements with the EU member countries at the intergovernmental and sectoral level are available and implemented.</p>	<p>1. Lack of the implementation action plan that takes account of current critical situation and budget cuts reducing the policy implementation budget; lack of economic assessment of greening opportunities for the national economy.</p> <p>2. Lack of proper consideration of the ecological status of protected areas and sites and insufficient economic assessment of costs entailed in improving of the environmental situation.</p> <p>3. Existing legislation on maintaining of the natural resource inventories is inadequate to meet current challenges.</p> <p>4. Unfinalised national greenhouse gas emission inventory and permitting system for industries and sectors.</p> <p>5. Lack of agreements and treaties concerning the implementation of the clean development projects within the framework of the Kyoto Protocol (Article 12); and uneven distribution of the joint implementation projects across the regions of the country;</p> <p>6. Inadequate and inefficient permitting procedures for those activities that may cause the degradation of land including a system of mandatory minimum requirements to be included in the permits.</p>
OPPORTUNITIES	THREATS
<p>1. Identifying of priorities to be addressed in the Action Plan for the State Environmental Policy Strategy; developing of regulations enabling the Convention provisions to existing conditions at the national level in a manner that takes account of opportunities offered under the public-private partnership mechanism and cooperation between Ukraine and EU;</p> <p>2. Legislate incentives encouraging investment and innovation in the area of sustainable biodiversity management;</p> <p>3. Optimizing of funding arrangements for the regional natural resource inventories through the attraction of those funding sources that are eligible under the existing legislation;</p> <p>4. Developing of regional social-economic development forecasts and programmes on the basis of a comprehensive environmental analysis of sites and facilities that pose threat to the environment;</p>	<p>1. Reduced budget spending for the implementation of the National Action Plan for the State Environmental Policy Strategy of Ukraine;</p> <p>2. Businesses are not interested in maintaining of routine compliance with the sustainable land management regulations in the course of doing business due to the lack of economic mechanisms and legislative framework for developing of the environmentally sustainable agricultural landscapes and land use systems;</p> <p>3. Lack of comprehensive data about those sites and facilities that may pose threat to the environment;</p> <p>4. Flawed material liability system for remedying of damage caused by the breach of the sustainable land management standards. Inadequate tax rates used to evaluate compensation for damage caused by the breach of the environmental legislation and ecosystem integrity provisions of the Convention to Combat Desertification;</p> <p>5. Lack of comprehensive legislative framework for implementing of the provisions of the Framework Convention on Climate Change;</p>

Table 1.5 continuation

1	2
<p>5. Adoption of a law regulating legal relations in the area of climate change and providing relevant legal and institutional arrangements, greenhouse gas emission rules and regulations; maintaining of the national greenhouse gas emission trading market;</p> <p>6. Establishing of a national environmental insurance system;</p> <p>7. Ensuring that tax rates are set taking into account the disturbances to the ecosystem integrity of protected areas. Introduction of the 'polluter pays' principle for those land users who cause environmental damage or risk thereof to ensure that they bear all associated damage prevention or restoration costs; introduce a procedure for assessing environmental damage or likelihood thereof; ensure the restoration of the ecosystem integrity of protected areas;</p> <p>8. Strengthening of bilateral and multilateral cooperation for financing the biodiversity conservation initiatives;</p> <p>9. Developing and adoption of the National and regional plans for adapting of the greenhouse gas emission reduction plans to the climate change; mainstreaming climate change in the sectoral and ministerial programmes, plans and strategies;</p> <p>10. Adoption of a law regulating legal relations in the area of climate change and providing of relevant legal and institutional arrangements, greenhouse gas emission rules and regulations; maintaining of the national greenhouse gas emission trading market;</p> <p>11. Establishing of a system of tax incentives encouraging emission reduction measures and green investment management mechanism including the identification of investment priorities and provision of tools to monitor progress toward achieving them;</p> <p>12. Developing of the State Target Programme to Combat Desertification and Land Degradation.</p>	<p>6. Implementation priorities are largely limited to the joint implementation projects and emission trading; lack of incentives encouraging initiatives designed to mitigate the consequences of climate change by addressing the issue of greenhouse gas emissions and sinks;</p> <p>7. Lack of regular monitoring of soil quality and fertility.</p>

The following conclusions can be drawn from the foregoing: Ukraine has an extensive suite of environmental laws and regulations. At the same time, the level of implementation of the Conventions considered above can be described as insufficient due to objective and subjective factors. The former include the political and economical situation in the countries and the latter relate to the lack of strategic planning in the area and weak control of the implementation process by the state.

As a consequence, the insufficient financial support provided by the government for the implementation process is exacerbated by a poor and inefficient use of alternative funding sources. It is also worth to note that the local self-governance authorities and state administration play a minor role in the preparation of the state target environmental programmes.

The efficiency of the environmental legislation development process is affected by a lack of the integrated pollution prevention and control mechanism. The existing regulatory framework is based on the emission inventory system and emission permitting and resource use licensing procedure. There is no regulatory framework for using pollution prevention incentives including

those encouraging the use of clean technologies and replacement of toxic components. There are no laws or regulations where the land conservation, air quality, water quality, waste management, physical impacts (noise, vibration, odour), sustainable use of raw materials and resources and occupational safety issues are addressed in an integrated manner.

The legislative reform should involve systemic changes in the legislation including general and specialized measures. General measures are those that aim to change the system of environmental legislation in general, while specialized measures focus on the improvement of specific laws and regulations that form part of this system.

In connection with the above, it can be concluded that there is an urgent need in formulating of the Environmental Law Development Concept in Ukraine. This Concept should include proposals regarding the fundamentals of the environmental legislation based on the social-economic development forecasts and programmes; justified systemic framework and principles underlying the design, application and development of legislation; justified proposals regarding an appropriate mix of laws, regulations and international treaties and internal linkages among various branches of the legislative framework (sectors, subsectors, legislative and regulatory systems and legal institutions); clearly identified regulation criteria; and law enforcement mechanisms.

A range of general measures may include:

- Developing a plan of actions designed to address the urgent issues associated with the implementation of conventions ratified by Ukraine.
- Creating a codified piece of legislation by adopting the Environmental Code or amending the Law of Ukraine on the Environmental Protection that would integrate various environmental media, rules for protecting them in the course of doing business, rules, regulations, standards, permits and limits, and sustainable resource management mechanisms.
- Developing a procedure and methodology for undertaking the Strategic Environmental Assessment of various sectoral, spatial and site-specific plans, projects and programmes within the framework of implementing the provisions of the Rio Conventions in the national policy of Ukraine.

The identification of specialized measures requires further study which will be represented in further researches.

The authors would like to extend their special appreciation to the UNDP/GEF Project “Integration of Rio Conventions Provisions into Ukraine’s National Policy Framework” that involved the analysis of implementation of certain Rio Conventions into the national sustainable development policy; the selected results of this analysis are presented to the readers.

1. NSCA of Ukraine // GEF [Online resource]. – Access mode: <http://www.thegef.org/gef/ukraine-ncsa>
2. Daly H. Ecological Economics: Principles and Applications / Daly H., Farley J. – Washington : Island Press, 2004. – 320 p.
3. Montpelier Vt. Mr. Soddy's Ecological Economy Montpelier [Electronic recourse]/ Vt. Montpelier // The NY Times. Opinion. – 2009. – 12.04. – Access mode : http://www.nytimes.com/2009/04/12/opinion/12zencey.html?_r=3&pagewanted=1&ref=opinion.
4. Georgescu Roegen N. The Entropy Law and the Economic Process / N. Georgescu Roegen. – Cambridge, MA : Harvard University Press, 1971. – 457 p.
5. Boulding K. Economics of the Coming Spaceship Earth / K. Boulding // Political Economy: Explorations in Alternative Economic Analysis. – [V. Lippit, M. E. Sharpe (eds.)]. – N. Y. : Armonk, 1966. – P. 357-367.
6. Hawken P. Natural Capitalism: Creating of the Next Industrial Revolution / Paul Hawken, Amory Lovins and Hunter Lovins. – Published by Rocky Mountain Institute : Little, Brown & Company, 1999. – 396 p.
7. Гринів Л. С. Економічна теорія природного капіталу: нові моделі, функції та оцінки / Л. С. Гринів // Науковий вісник ЛНТУ. – 2005. – Вип. 15.6. – С. 65–71.
8. Hardin G. The Tragedy of the Commons / G. Hardin // Science. New Series. – 1968. – Vol. 162, no. 3859. – P. 1243–1248.
9. Андреева Н. Н. Экономика и экология: совместимость развития (мировой опыт и украинская перспектива): [монография] / С. К. Харичков, Н. Н. Андреева, Л. Е. Купинец ; Ин-т проблем рынка и экон.-экол. исслед. НАН Украины. – О., 2007. – 180 с.
10. Хвесик М. Парадигмальний погляд на концепт сталого розвитку України / М. Хвесик, І. Бистряков // Економіка України. – 2012. – № 6. – С.4-12.
11. Хлобистов Є. В. Сталий розвиток та екологічна політика у глобальних викликах: від передбачення до прогнозування / Л. В. Жарова, Є. В. Хлобистов, М. В. Ільїна // Економіка природокористування і охорони довкілля: зб. наук. пр. – К.: РВПС України НАН України, 2008. – С. 33–43.
12. Міщенко В. С. Глобальний і національний вимір трансформаційних процесів у мінерально-сировинній сфері України : [наукове видання] / В. С. Міщенко ; НАН України, Рада по вивч. продукт. сил України. – К. : РВПС України НАНУ, 2009. – 84 с.
13. Пашенцев А. И. Моделі захисту навколишнього природного середовища : [брошура] / А. И. Пашенцев. – Симферополь: ДІАЙП, 2011 – 53 с.
14. Жарова Л. В. Макроекономічне регулювання природоохоронної діяльності : [монографія] / Л. В. Жарова; за наук. ред. д.е.н., проф. Є. В. Хлобистова; ДУ ІЕПСР НАНУ. – Суми: Університетська книга, 2012 – 296 с.
15. Шемшученко Ю. С. Экологическая конституция Земли: концептуальные подходы / Ю. С. Шемшученко // Государство и право. – 2008. – № 6. – С. 23-26.
16. Гетьман А. П. Правові засади державної екологічної політики в сфері охорони довкілля// Досвід і проблеми інкорпорації, імплементації та адаптації екологічного законодавства: матеріали міжнар. наук.-практ. конф., 25 верес. 2013 р., м. Дніпропетровськ – Д.: Національний гірничий університет, 2013-С.54.
17. Правові засади впровадження в Україні Конвенції про біорізноманіття [монографія] / Н. Р. Малишева [та ін.]; відп. ред. Н. Р. Малишева; Управління охорони земельних ресурсів, екомережі та

збереження біорізноманіття, Благодійна організація "Інтерекоцентр", Науково-консультаційний центр "Астус". – К.: Хімджест, 2003. – 175 с.

18. Еремеева Н. В., Аблаева Л. А., Грановская Л. М. и др. Крым: Цели развития тысячелетия: вопросы локализации ЦРТ на примере адаптации седьмой цели (обеспечение устойчивого развития окружающей среды). НТТ УРП, ПРООН в Украине. – Симферополь: ИТ «Ариал», 2011.

19. Жарова Л. В. Економічний механізм контролю за викидами парникових газів: [брошура]. / Л. В. Жарова, М. В. Льїна, [відповід. ред. С. В. Хлобистов]. – К.-Симф.: РВПС України НАН України, 2009. – 62 с.

20. Zharova L., Khlobystov Y., Yeremeeva N. Implementation of the rio conventions in framework of national sustainable development policy in Ukraine // Marketing and Management of Innovations. – 2014. – № 3. – P. 176-186.

21. Соціально-економічний аналіз надзвичайних ситуацій природного та техногенного характеру / [Жарова Л. В., Хлобистов С. В., Волошин С. М., Чебанов О. А]. – К.-Симферополь: СОНАТ, 2010. – 258.

22. United Nations Framework Convention on Climate Change [Online resource]. – Access mode: <http://zakony.com.ua/juridical.html?catid=44276>

23. For the World Day to Combat Desertification and drought // Silver land [Online resource]. – 14 june 2013. – Access mode: <http://www.sribnazemlja.org.ua/201306149677/news/socio/do-vsesvitnogo-dnja-borotby-z-opusteljuvannjam-ta-zasuhamy-9677.html>.

1.3 ECOLOGICALLY ORIENTED INNOVATIVE CULTURE OF A SOCIETY AS A PREREQUISITE FOR SUSTAINABLE DEVELOPMENT: PERSPECTIVES FOR UKRAINE

The history of humanity suggests that the economic development without ecological limits causes the global environment worsening and even threatens the human civilization. The innovations and innovative activities from the basis of various ground of some organizations, fields, states and the human civilization as a whole. The analysis shows that all innovations are of dual nature: on the one hand, they promote production efficiency and consumption growth and on the other hand, they raise the problem of the ecological limits in the social and economic development processes on the higher level. For example, the possible ecodestructive impact of modern innovative products and technologies, e.g., genetic engineering, nanotechnologies, nuclear fusion, which take first positions in technological progress (TP), may be stronger than in traditional ones. The practice shows that innovative way of development has no alternatives, and related ecological problems, on level with social and economic ones, need innovative ecologization activity. One of the main preconditions of its success is to create and develop the ecologically oriented innovative culture. According to Shypulina, 2010, innovative culture is a social and cultural mechanism of the innovative human society regulation.

The problems of innovative culture creation were investigated in works of many scientists, including Bondar-Pidgurska, Korotych, 2012; Balabanov, 2004; Kameron, 2001; Shane, 2007; Nickolaev, 2002; Zaharchyshyn, 2008; Patora, Tsymbalist, 2008; Zubenko, 2008. Thereby the concept of society and organization innovative culture and its influence on innovative activity was developed; the main elements and the place of innovative culture in the corporation organization culture are also described. However, problems of ecologization of innovative culture were not practically investigated, and this doesn't promote use of present mechanisms and doesn't develop new social and cultural mechanisms of the ecologically oriented innovative conduct of innovative subjects' regulation. It is a problem of primary importance for Ukrainian conditions, where one is looking for ways of perspective innovative development of the country which would realize its still high competitive advantages. Thereby chosen fields have to be in sustainable development, because the traditional fields, which are the most important for the budget revenue (mainly, iron industry, inorganic chemistry, and machinery) are ecodestructive and increase social and economic problems.

Thus, the main goal of this research is to investigate the prerequisite of the ecologically oriented society innovative culture in Ukraine as a base of the sustainable development.

According to the Law of Ukraine "On innovation activity priority directions", innovative culture is defined as an innovative potential component which characterizes the level of educational, cultural and socio-psychological training of the person and society as a whole to perception and creative implementation the idea to develop the economy on innovative basis. Innovative culture development of the society is determined as one of the strategic priorities in innovative activity in Ukraine. The value of innovative culture is increasing during the transition from an industrial economy to the knowledge economy where information and knowledge (in this case, ecological and economic) are the main means and subject of social production; they are also a limiting factor in the development and replace capital as the surplus value source. In these circumstances, it is necessary to format the sustainable traditions in society to receive new ideas, abilities and willingness to use it comprehensively for general progress in adjusting the environmental, social and economic interests of society.

Society innovative culture includes [17] 3 constituents which have such functions:

- innovative means – to develop new types of the innovative conduct on basis of patterns of innovative activity inside the social culture or introduced outside;
- selective means – to select once again created or borrowed innovative conduct models, which respond to the society needs on the fixed stage of its development;

– broadcasting means – to transfer sustainable types of innovation from the past to the future, which have been recognized impractic and got into the value system of the society.

Let consider them (with regard to Ukrainian realities) from the point of view of the existing level and perspective possibilities of the ecologization.

Creation of the ecologically innovative conduct occurs in two directions: ecologization of forming innovations (development and production); ecologization of consumption innovations (usage).

The results of the realized investigations show that environmental compatibility of the production and its manufacturing techniques are viewed by the commodity producers as a competitiveness factor. Particularly [6], 67 % of the questioned heads of the enterprises in Sumy region, in Ukraine, where the biggest machine-building and chemistry plants are situated [11] suppose the environmental compatibility as a competitive advantage, and 44 % – ecological production technologies. Thereby 72 % of the heads are ready to invest in environmental compatibility of techniques, and 83 % – in production ecologization. The detailed analysis showed that 40 % of respondents consider improvement of environmental impact on production processes without any essential changes in production structure is of the highest priority; 31 % – producing and use of environmental protection means from its harmful impact; 29 % – producing and consumption of the production which allow to decrease позволяет снизить material- and power intensity, is more ecological than traditional one.

But this manufacturer's potential readiness does not always transfer into real action because of limited finances, high prices of ecological technologies (as a rule, foreign), inefficiency of state support mechanisms, and so on.

Consumers of practically all social strata in Ukraine understand the necessity of resolving contradictions between the economic increase and environmental preservation [6]. The author's research shows that, in Ukraine, ecologically oriented consumer is actually formed: from 40 % to 90 % of the population are ready to pay markup for indies compatibility (depending on product kind) [7].

Thus, one may ascertain the high level of the innovative constituent of the ecologically oriented culture in Ukrainian society development.

Selection of newly created or borrowed ecologically oriented innovative conduct models, at present, is provided with proper motivation, and is divided into 2 groups of indies: environmental retraction indice and environmental pressure indices.

Environmental retraction indices are as follows:

– environmental awareness of all levels of population which consider the importance of solving nowadays environmental problems. The results of our survey showed that about 63,12 % of people are troubled with environmental problems and 24,3 % – are partially troubled [6]. One can see the same situation in the developed countries [15]: about 66 % of Europeans and 80 % of Japanese are worried about environmental problems.

- readiness of some people to buy eco-products despite their higher prices (fig. 1.3);
- manufacturers’ understanding of the importance (from the point of view of competitiveness) of production ecologization and readiness to invest in it (see above).

Thus, environmental retraction indices have a great impact on the selective function of the ecologically oriented innovative conduct models.

However, environmental pressure indices (which include [9] legislative limits and recommendations; requirements of the national and international standards; costs effectiveness, since non-ecological production can be burdened with many costs for waste refinement and utilization, compensation payments to workers for harmful work conditions, payments for environmental services and fines, etc.) are practically non-operational or are of little importance in Ukraine.

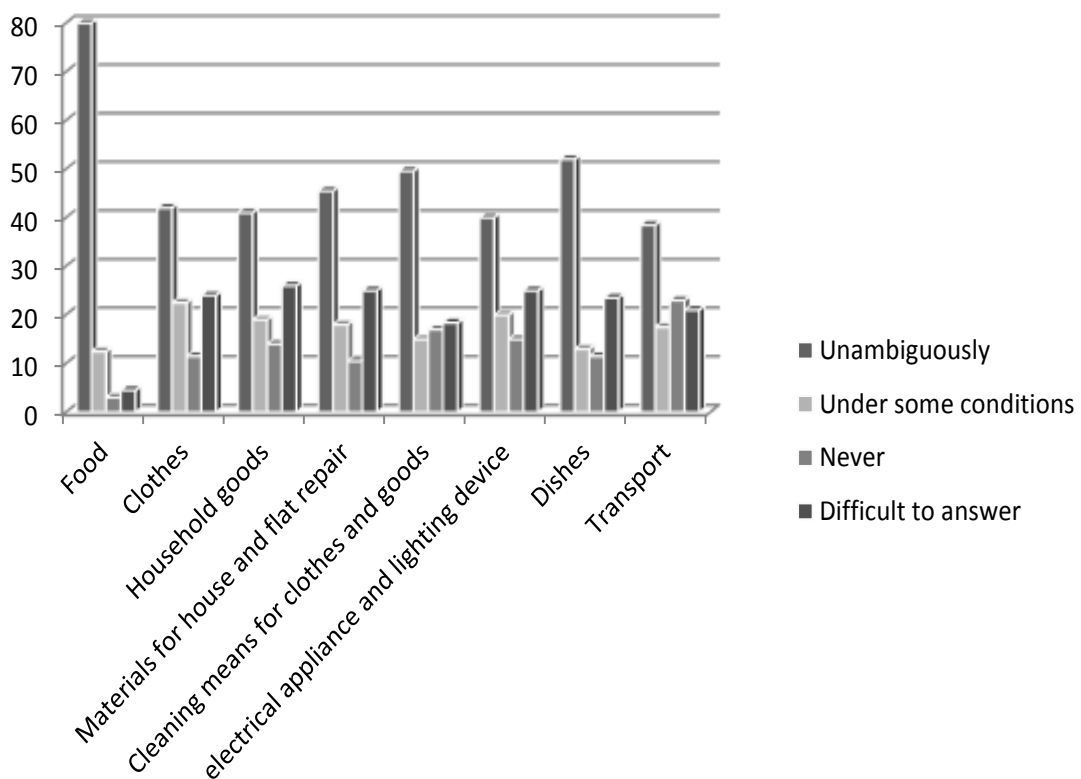


Figure 1.3. Consumers’ readiness to pay markup, % [6]

From this, it follows that Ukraine has one-sided developed selective constituent of the ecologically oriented innovative culture: adequate impact of environmental retraction indices and poor impact of environmental pressure indices which, by the way, is practically graded by corruptive Ukrainian economy constituent and lack of society development, help to avoid these indices.

Transfer of the sustainable innovative conduct types from the past to the future is provided by the following mechanisms [8]:

- informing people about negative consequents of non-ecological goods and technologies, use present environmental conditions, about ecological and non-ecological goods (production and technologies) and their producers, events related to the environmental protection;

- informing people and manufacturers about ecological goods and technologies, their characteristics, about benefits of production ecologization, adequate consumption (use), and so on;

- formation of social norms and values which would demonstrate life success of the developers of environmental innovations and of environmentally friendly innovative activities producers tolerant relation to the innovators' success, wish to follow their example;

- formation of the producers' (purchasers') attitude to the consumers' environmental needs due to the principle "the consumer is always right";

- stimulation (formation) of economic mechanism for the producers' and consumers' ecological conduct: state order, programming, ecological projects and financing programs, tax reductions and credits, ecoinnovations funding;

- mechanism of administrative regulation of the eco-friendly production and consumption: production standardization, rationing of goods and technologies, environmental expertise, licensing and restrictions, administrative responsibility, embargoes, antimonopoly regulation, control, etc.;

- organizational supplying mechanism: environmental education, environmentally friendly innovative infrastructure, and so on.

The analysis shows that broadcasting function of the ecologically oriented innovative culture is unstructured in Ukraine. It is often chaotic, and sometimes introduces disproportion between its elements.

Assuming that the ecologically oriented innovative culture consists of subsystems, we created a pyramid scheme of its function realization priorities, described in the fig. 1.4. The levels of the pyramid scheme demonstrate the main idea of the selected functions.

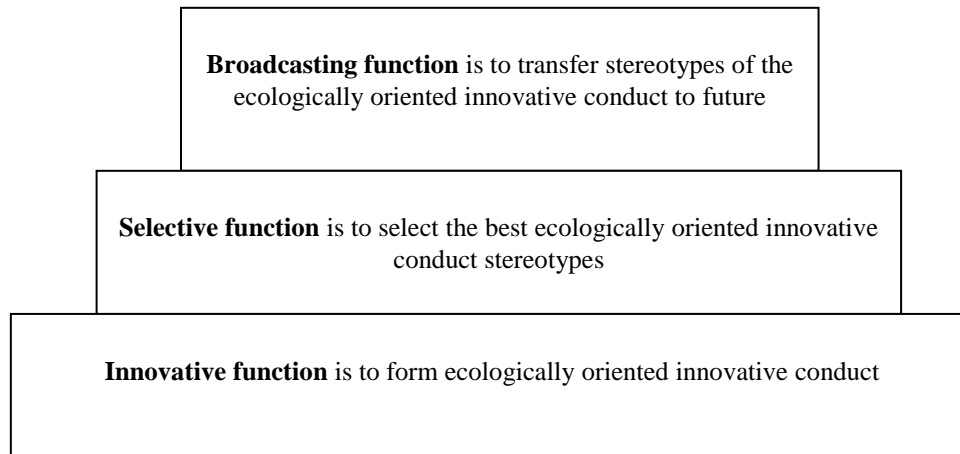


Figure 1.4 – Pyramid scheme of realization of ecologically oriented innovative culture function
[Author’s adaptation based on 6; 11]

Taking into account the results of the above analysis, we must say that the great part of the ecologically oriented innovative culture (innovative constituent) has been already formed in Ukraine; the selective constituent is being formed now (although it is one-sided: one can observe strong activity of environmental retraction indices and weak activity of the environmental pressure indices), and the basis of the broadcasting constituent is also being formed but in chaotic and unstructured way.

Depending on the research results, one may come to a conclusion, that there is a process of ecologically oriented innovative culture formation in Ukraine which conforms to the pyramid in the fig. 1.4. The market mechanisms play an important role in it, and at the same time the state regulation and stimulation mechanisms are not practically involved, that’s why it doesn’t allow to control the process formation. Activation of the ecologically oriented innovative culture process formation needs the development of the effective and operative mechanisms of its state support and stimulation.

Also, one should consider that innovative culture (including ecologically oriented) is one of the mechanisms to create favourable conditions for the innovative activity. In general, it is formed by the following mechanisms [18]:

1. Mechanisms which define the vector of the favourable conditions for innovative development (changes control; leading development).
2. Mechanisms which form the grounds for the innovative and favourable environment (innovative activity organization; *innovative culture formation*; innovative activity motivation).

3. Mechanisms which form the resource, a constituent of the innovative and favourable environment (innovative activity financing; innovative risk management).

4. Mechanisms which agree with interests of the innovative process subjects.

Innovative culture is also considered as the subsystem of the national intellectual capital which, in turn, is viewed as a subsystem of its innovative development potential (fig. 1.5).

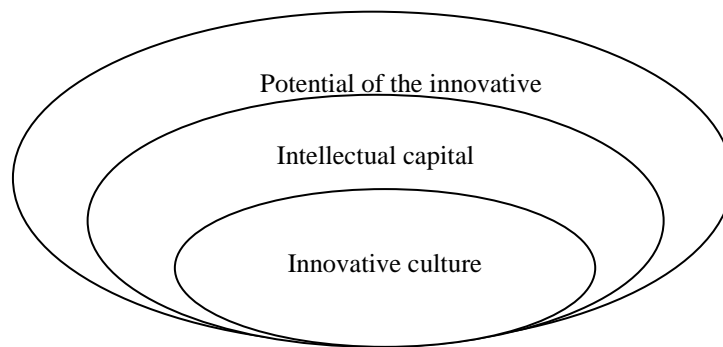


Figure 1.5 – Scheme of the relationship between innovative culture, intellectual capital, and innovative development [Author’s adaptation based on 1; 10]

From the above it follows that the processes of innovative culture formation and development in Ukraine, its intellectual capital and potential of the state innovative development occur in parallel and mutual coordination.

Thus, the basis of innovative culture are formed at the national level. The authors consider it as a combination of accumulated knowledge and experience of the staff at Ukrainian enterprises and institutions, its opinion, behavior and relations between managers, engineers and technical workers, workers, their motivative system, existing procedures etc, which characterize the level of favorability to innovations by individual workers, groups of workers (units) and the state as a whole, to turn them into new products, technologies and management decisions. Innovative culture among staff at enterprises and institutions is closely linked with other forms of their culture (managerial, corporate, entrepreneurial, etc.) and essentially influence on them.

It provides the opportunity to form supportive and effective culture of staff professional activity at enterprises and organizations, establish productive relationships that will ensure the effective development of the state through innovations. Innovation culture shows the human value orientation on innovation, enshrined in the motives, knowledge, skills and habits, as well as samples and standards of behavior.

Innovative culture formation is inextricably linked with the creation of favorable conditions to development human creative potential. Formation of positive moral and ethical foundations that are perceived by the majority of society are among the main preconditions. The world experience proves that the higher moral and ethical foundations of society, as well as staff groups at enterprises and institutions, the more tolerant they will be to treat the development of individual capabilities of each person, and the higher the socio-economic parameters of the society and its individual members will be. This is particularly significant for the transition to sustainable development, whereas moral motives, with the undoubted importance of rational (economic), determines the strategy and tactics of sustainable innovative development of economy in Ukraine and its separate regions.

The obtained results develop theoretical-methodological bases of environmental innovations management in terms with clarifying the functions of ecologically oriented innovative culture of a society and the level of their implementation in modern conditions of socio-economic development in Ukraine. The authors highlighted specific instruments for implementation the functions of innovation culture in the society, and carried out the qualitative analysis to determine the level of their influence to stimulate transition the Ukrainian economy in an environmentally sustainable innovative development. Outlined the system of organizational-economic mechanisms that form environmentally oriented innovative culture of the society.

Thus, the formation of the ecologically oriented innovative culture is one of the most important prerequisites to activate the process of Ukrainian economy transfer to the sustainable ecologically balanced innovative development. And, therefore, it is to be one of the main state innovative and ecological policy priorities.

The further investigations must be directed towards foreign experience analysis, to create and introduce social and cultural mechanisms of ecologization regulation of innovative activities and to develop the state program of ecologically oriented innovative culture formation in Ukraine.

1. Balabanov V. O. To the problem of the society innovative culture formation / V. O. Balabanov // XXI century: Alternative models of the society development. The third world theory: Materials of the Third international scientific and technical conference, May 21-22, 2004. – Part 1. / Ed. G. P. Balabanov. – K : Fenix, 2004. – P. 388 - 391.

2. Bondar-Pidgurska O. Innovative culture as the necessary condition of the social and economic system sustainable development / O. Bondar-Pidgurska, Y. Korotych // Book of abstracts from International

students' forum "A model of Visegrad countries in the youth integration into the only scientific and cultural expanse". – Lutsk : BIEM, 2012. – P. 124-127.

3. Zaharchyshyn G. M. Conceptual model of the enterprise innovative culture / G. M. Zaharchyn, O. Ya. Andriychuck // NFEU bulletin : Collection of scientific papers – Lviv : NFEU Ukraine. – 2008. – issue 18.8. – P. 272-278.

4. Zubenko W. W. Innovative culture in the enterprise organizing culture system / W. W. Zubenko // Economics and management. – 2007. – No. 4-5. – P. 93-97.

5. Ilyashenko S. M. Investigations of the Sumy inhabitants' attitude to nowadays environmental problems / S. M. Ilyashenko, N. M. Gaytyna, T. W. Kyrychenko, M. W. Rybalka // Marketing and management of innovations. – 2012. – No. 2. – P. 240-246.

6. Ilyashenko S. M. Environmental compatibility as a factor of the production competitiveness / S. M. Ilyashenko // Urgent economic problems. – 2012. – No. 9 (135). – P. 143-150.

7. Ilyashenko S. M. Marketing analysis of the environmental characteristics of production on and consumption by native consumers / S. M. Ilyashenko, Ya .A. Kovalenko, O. Ye. Timoshova // Collection of scientific papers of Khmelnytsky Cooperative Trade-Economic institute. – 2012. - No. 3. – P. 357-364.

8. Ilyashenko S. M. Marketing grounds for introduction of environmental innovations monograph / S. M. Ilyashenko; Sumy State University. – Sumy : LLC "Publishing house "Papyrus", 2013. – 184 p.

9. Ilyashenko S., Prokopenko O. Ecological marketing // Marketing in Ukraine. – 2003. – No. 12. – P. 56-61.

10. Cameron K. S. Diagnosing and changing of the organization culture / K. S. Kameron, R. Quinn : Transl. from Eng. / Ed. I. A. Andreyeva. – SP: 2001. – 320 p.

11. Karpinskaya Yu. Ecological investigations «ECO Omnibus» from IDS Group/ Yuliya Karpinskaya // Marketing research in Ukraine, 2011. – No. 1. – P. 50-56.

12. Meffert Heribert, Kircheorg Manfred. Green marketing // Marketing / Ed. by M. Beiker. - SP, 2002. – P. 967-991.

13. Nickolaev A. I. Innovative culture as a culture of changes (problems, tasks, defenitions, suggestions) / A. I. Nickolayev, B. K. Lisin // Innovations. – 2002. – No. 2, 3.

14. Patora L. Innovative culture formation as the ground for enterprise innovative development potential / L. Patora, N. Tsymbalist // Problems of economics and management : NU "Lviv Polytechnic" bulletin. – 2008. – No. 628. – P. 603-608.

15. Prymak T. O. Eco marketing: the world and Ukrainian realities / T. O. Prymak // Problems and perspectives of the innovative development market-oriented management; Ed. Doctor of Economics, Prof. S. M. Ilyashenko. – Sumy: LLC "PH "Papyrus", 2011. – P. 564-589.

16. Shane E. Organizational culture and leadership / E. Shane. Issue 3: Transl. from Ukrainian / Ed. T. Ju. Kovaleva. – SP: 2007. – 336 p.

17. Shypulina Ju. S. Innovative culture of organization: essence, structure, approaches to the evaluation // Marketing and management of innovations. – 2010. – № 2. – P. 132.

18. Shypulina Ju. S. Mechanisms of innovative and favourable environment formation at the industry enterprise / Ju.S. Shypulina // Innovative economy, 2013.– 8 (46).– P. 77-83

1.4 OPTIMIZATION OF THE INVESTMENT FUND DISTRIBUTION DEALING WITH NATURE PROTECTION PROJECTS

It is known that nature needs to be protected, especially in the conditions of tendencies of its exhaustion and pollution by mankind that threatens to minimize permissible potential. This thesis and Guy's theory [6] that nature will revenge and mankind will have to pay for damage and any nature protection activity demands material, financial, labor, intellectual resources prove us the fact that the concern on ecological wellbeing is always connected with alternative expenses.

From here the main task follows: to provide achievement of target parameters of environmental quality with the minimum expenses, having made a compromise choice between economic development and ecological safety.

Thus one of the fundamental problems becomes the rational distribution of investment funds of the environmental protection, an assessment of efficiency of their use. In the conditions of lack of an accurate structural basis of planning, selection of the investment projects and participants for their financing there is an influence of subjectivity in decision-making, momentary political unreasonable decision and indistinct responsibility.

The assessment and selection of the projects for the state and regional levels of financing from the state budget is usually carried out vaguely and it opens the scope for corruption and inappropriate use of these resources.

The laws and subordinate documents don't accurately define who has to be responsible for adoption of these or those decisions and bear for this social and legal responsibility.

It is really, the state resources aren't always spent according to the accurate program concept. Ecological funds have the poor resources and it creates the risk of inefficient use of means owing to difficulties of establishment of priorities of their distribution. It proves the need for strengthening the attention to use of bases of the institutional theory.

However, any institutional reform in the sphere of quality management of the environment should be started from the creation of accurately formulated programs of the achievement of the priority purposes, including the environmental protection. The structures of the institutes and concrete financial methods have the secondary nature and they should be adapted for the specific needs of management of the programs of ecological funds expenditure.

Therefore, for successful realization of the ecological policy, the prime solution of the most priority environmental problems, and the optimum expenditure of the funds for these purposes it is necessary to provide a conceptual basis and implementers.

One of the tools for these purposes is recommended to use scenario approach [5 p. 65–78]. In this case, it is required to use the model of planned distribution of these resources at the heart of which there can be the usefulness of the function of quality of environment integrated index.

The structural elements of this model are the total amount of fund, the number of projects and the cost of each of them.

The model description. Let us enter designations: S – budgetary investment fund of nature protection projects; $z = \{z_1, z_2, \dots, z_m\}$ – the recommended nature protection projects; m – the number of projects; $c = \{c_1, c_2, \dots, c_m\}$ – the cost of projects. Thus, the set of all possible sets of projects (\emptyset corresponds to a case when any of projects isn't realized, for example, if $S < \min_i c_i$) is presented in the formula 1.1.

$$Z = \left\{ \begin{array}{l} \emptyset, \{z_1\}, \dots, \{z_m\}, \{z_1, z_2\}, \dots, \{z_{m-1}, z_m\}, \{z_1, z_2, z_3\}, \dots, \\ \{z_{m-2}, z_{m-1}, z_m\}, \dots, \{z_1, z_2, \dots, z_m\} \end{array} \right\} = \{Z_0, Z_1, \dots, Z_{2^m-1}\}, \quad (1.1)$$

$$|Z| = \sum_{k=0}^m C_m^k = 2^m, \quad (1.2)$$

at total of such sets of projects we have (that is we have the corresponding number of combinations of the costs of projects):

where:

Z – is the vector of the recommended nature protection projects;

$C = \{0, C_1, \dots, C_{2^m-1}\}$ – is the vector of costs of realization of all possible sets of projects (0 corresponds to a case when funds for implementation of the project are absent).

We offer functions of the usefulness of two types [1]. The first considers only the change of the quality of the environment, and the second – the change of the quality of the environment and the financial expenses, at the same time. It has the form:

$$G_1(Z_k) = \frac{Y(Z_k) - Y(0)}{100}, \quad (1.3)$$

where: $Y(Z_k)$ – is the expected value of an integrated assessment of the quality of the environment after the realization k the set of projects;

$Y(0)$ – is the value of an integrated assessment of the quality of the environment before the realization k – the set of projects.

This function of the usefulness is linear at an increment of the integrated index of the quality of the environment $Y(Z_k) - Y(0)$ that is the more the expected increment of the studied index after the realization of the set of projects, the more rational the project is.

The function of the usefulness of the second type has a form:

$$G_2(Z_k) = \exp\left((Y(Z_k) - Y(0))\left(1 + \frac{S}{aC_k}\right)\right), \quad (1.4)$$

It is proved that the function of usefulness of this look exponential depends from

$$(Y(Z_k) - Y(0))\left(1 + \frac{S}{aC_k}\right),$$

that confirms the account change of value of an integrated assessment at realization of the set of projects $(Y(Z_k) - Y(0))$, and the efficiency of

investments into the project $\left(\frac{S(Y(Z_k) - Y(0))}{C_k} = \frac{(Y(Z_k) - Y(0))}{\frac{C_k}{S}}\right)$, where $\frac{C_k}{S}$ – characterizes the

part of means of the general investment fund which is enclosed in the k set of projects. If

$\frac{Y(Z_k) - Y(0)}{C_k} = \frac{0}{0}$, the entered function of usefulness accepts the values from the interval

$[0, +\infty)$, that means that no investments are put in any project.

Thus, the task consists in that using of the corresponding restrictions to distribute resources at the maximum value of function of usefulness that will lead to the increase of the integrated index of quality of the environment, and as a result to the increase of the quality of the population life.

The stages of model realization:

The first stage (reflects restrictions of financial resources) allows to eliminate those sets of the projects the costs of which exceed the size of projects fund and the set of

admissible projects is formed by the following rule: $Z_p = Z / \left\{ \bigcup_{k=0}^{2^m-1} \{Z_k : C_k > S\} \right\}$, that is a

set of the projects is eliminated from a set of all possible sets of projects and their costs exceed the total amount of money (S) which the subject has.

As a result the vector of admissible projects will have the form $Z_p = \{Z_0, Z_1^p, Z_2^p, \dots, Z_r^p\}$, in which the remained sets of projects are ordered according to the increase of costs for their realization, that is $0 \leq C_1^p \leq \dots \leq C_r^p$. There is the inequality $r \leq 2^m - 1$, which eliminates unreal projects, Z_0 will always be the element of a set of admissible sets.

The second stage provides usefulness of function evaluation for each of the selected sets of projects and forms in the table 1.6.

Table 1.6.

Usefulness of functions for the choice of the optimum project
[Author's adaptation based on 1; 6]

The admissible sets of projects	Z_0	Z_1^p	.....	Z_r^p
The values of function of usefulness	$G(Z_0)$	$G(Z_1^p)$	.....	$G(Z_r^p)$

The third stage (it is the choice of an optimum set of projects) selects a set of projects which will be realized as it is optimum according to the usefulness function G .

Using the table 1.6, we can find Z_h^p , and $G(Z_h^p) \rightarrow \max_{0 \leq l \leq r} G(Z_l^p)$ (that is, we find a set of projects on which the function of usefulness accepts the maximum value).

If the function of usefulness accepts the maximum value for several sets of projects, the new interaction will be required:

$$H = \{Z_{h_1}^p, \dots, Z_{h_j}^p\}, G(Z_{h_1}^p) = G(Z_{h_2}^p) = \dots = G(Z_{h_j}^p) = \max_{0 \leq l \leq r} G(Z_l^p), j \leq r, (1.5)$$

In consequence of this, the other set of projects from the set H is chosen, and the cost of realization is minimum, that is

$$C_{h_b}^p \rightarrow \max_{1 \leq a \leq j} C_{h_a}^p.$$

The objectives are realized with classical simplex method, thus investment resources on environmental protection at a rate of $S = 6451$ million UAH are distributed according to the projects (tab. 1.7) taking into account the priority of the cost of their realization.

Table 1.7

The list of nature protection projects taking into account their influence on the quality of the environment

[Author's adaptation based on 1; 3]

	Projects	The cost of the project million UAH	The expected effect		
z ₁	The improvement of technological processes, including transition to alternative types of fuel, raw materials, energy resources.	47,4	Reduction	of emissions of volatile organic compounds	on 0,4%
z ₂	The construction and introduction of new gas-purifying installations	472,9			on 3,7%
z ₃	The effective increase of existing clearing installations, including their modernization, reconstruction and repair	262,0			on 1,4%
z ₄	The elimination of the sources of pollution	22,2			on 0,2%
z ₅	Reconstruction and technical re-equipment of the installations for ashes catching.	195,0			on 1,3%
z ₆	The construction of water treatment facilities	350			The increase of power efficiency on 0,3%
z ₇	The construction and reconstruction of sewer systems treatment facilities	1718,7	Reduction	of dumpings of polluting substances in the water which have been taken away from natural sources	on 1,4%
z ₈	Protection of surface water by ordering of the systems of water disposal	2209,6			on 2,6%
z ₉	The introduction of water purification installations of the subjects of managing	68			on 0,07%
z ₁₀	The construction of the waste-processing enterprises	200			of areas under solid household waste for 0,3%
z ₁₁	The protection and soil recultivation, restoration of underground and surface water	639,1			of squares of the polluted sites at 0,8% and dumpings of polluting substances in the water which has been taken away from natural sources for 0,5%
z ₁₂	The improvement of waste using	1183,8			of areas under solid household waste for 1,5%

According to table 1.7 the following results (tab. 1.8) are received.

Table 1.8

The values of the ecological parameters influencing the quality of the environment before implementation of the projects [Author's calculation]

The ecological parameters		
Projects	Before the project realization	After the project realization
Emissions of volatile organic compounds		
z_1	$x_{22} = 58,235$	$x_{22} = 58,00206$
z_2	$x_{22} = 58,235$	$x_{22} = 56,08031$
z_3	$x_{22} = 58,235$	$x_{22} = 57,41971$
z_4	$x_{22} = 58,235$	$x_{22} = 58,11853$
z_5	$x_{22} = 58,235$	$x_{22} = 57,47795$
Power efficiency		
z_6	$x_{56} = 26,19$	$x_{56} = 26,26857$
Dumpings of polluting substances in the water which have been taken away from the natural sources		
z_7	$x_{31} = 24,9$	$x_{31} = 24,55$
z_8	$x_{31} = 24,9$	$x_{31} = 24,2526$
z_9	$x_{31} = 24,9$	$x_{31} = 24,88$
The area under solid household waste		
z_{10}	$x_{37} = 0,11$	$x_{37} = 0,10967$
Squares of the polluted sites and dumpings of polluting substances in the water which have been taken away from natural sources		
z_{11}	$x_9 = 185,4 \quad x_{31} = 24,9$	$x_9 = 183,9168 \quad x_{31} = 24,7755$
The area under solid household waste		
z_{12}	$x_{37} = 0,11$	$x_{37} = 0,10835$

Stage 4 allows to lead x_{ij} to 100-score scale for calculation of the expected increment of an integrated index of the quality of environment after the projects implementation (tab. 1.9).

Table 1.9

The calculation of increments of an integrated index of the quality of the environment

[Author's calculation]

Project	Ecological parameters		$Y(z_k) - Y(0)$
	Before the project realization (100-score scale)	After the project realization (100-score scale)	
1	2	3	4
z_1	$x_{22} = 35,29$	$x_{22} = 35,55$	0,003106
z_2	$x_{22} = 35,29$	$x_{22} = 37,69$	0,028729
z_3	$x_{22} = 35,29$	$x_{22} = 36,20$	0,010871
z_4	$x_{22} = 35,29$	$x_{22} = 35,42$	0,001553
z_5	$x_{22} = 35,29$	$x_{22} = 36,14$	0,010094
z_6	$x_{56} = 43,65$	$x_{56} = 43,78$	0,001899
z_7	$x_{31} = 37,75$	$x_{31} = 38,62$	0,065363
z_8	$x_{31} = 37,75$	$x_{31} = 39,37$	0,121388
z_9	$x_{31} = 37,75$	$x_{31} = 37,79$	0,003268
z_{10}	$x_{37} = 45,00$	$x_{37} = 0,033825$	0,033825
z_{11}	$x_9 = 38,20 \quad x_{31} = 37,75$	$x_9 = 38,69 \quad x_{31} = 38,06$	0,124696
z_{12}	$x_{37} = 45,00$	$x_{37} = 45,83$	0,169125

Further the vector of costs of projects is received:

$$c = (47,4; 472,9; 262; 22,2; 195; 350; 1718,7; 2209,6; 68; 200; 639,1; 1183,8) \quad \text{for the}$$

vector of projects $z = (z_1, z_2, \dots, z_{11}, z_{12})$, at a preset value of money $S = 6451$ mln. UAH,

where the financial restrictions are presented by an inequality: $z \cdot c \leq S$.

With the use of criterion function $A(\bar{z}) = \sum_{k=1}^{12} (Y(z_k) - Y(0))z_k \rightarrow \max$

we establish the possibility of implementation of the project: partially, completely or refusal (if $z_k = 0$, that is why k -project is excluded from an optimum set of projects).

The numerical results of the solution of a task allowed to establish an optimum set of projects (tab. 1.10).

Table 1.10

The results of calculation of an optimum set of projects [Author's research]

Recommendations	Projects
0	The improvement of technological processes, including transition to alternative types of fuel, raw materials, energy resources, Z ₁
1	The construction and introduction of new gas-purifying installations, Z ₂
0	The effective increase of existing clearing installations, including their modernization, reconstruction and repair, Z ₃
0	The elimination of the sources of pollution, Z ₄
0	Reconstruction and technical re-equipment of the installations for ashes catching, Z ₅
0	The construction of water treatment facilities, Z ₆
1	The construction and reconstruction of sewer systems treatment facilities, Z ₇
1	Protection of surface water by ordering of the systems of water disposal, Z ₈
0	The introduction of water purification installations of the subjects of managing, Z ₉
1	The construction of the waste-processing enterprises, Z ₁₀
1	The protection and soil recultivation, restoration of underground and surface water, Z ₁₁
1	The improvement of waste using, Z ₁₂

Thus, the implementation of the designated projects will provide the quality of environment improvement on 0,543125 score with expenses 6397, 2 million UAH that makes 99,5% of all available sum.

According to the results presented we can conclude the following:

1) In connection with the inefficiency of investment resources usage in the nature protection projects, the model of optimum distribution of these funds is developed.

2) The models of two types are offered: one which shows only the change of the environment qualities and the other which simultaneously shows the change of the environment quality, expenses and financial resources and allows to optimize a set of projects on the environmental protection.

3) The implementation of the offered projects with the help of optimizing model will provide the increase of an integrated index of the environment quality on 0,54 units.

1. Александров І. О., Методологія оцінки якості навколишнього середовища для України / І. О. Александров, О. О. Кравець // *Маркетинг і менеджмент інновацій*. – 2012. – №3. – С. 221-228.
2. Національна доповідь про стан навколишнього природного середовища в Україні у 2011 році. – К.: Міністерство екології та природних ресурсів України, LAT & K. – 2012. – 258 с. [Електронний ресурс.] – Офіційний сайт Міністерства екології та природних ресурсів України. – Режим доступу: <http://www.menr.gov.ua/media/files/NacDopovid2011.pdf>.
3. Статистичний щорічник України за 2011 рік // Державна служба статистики. – Київ : ТОВ «Август Трейд», 2012. – 558 с.
4. Фишберн П. С. Теория полезности для принятия решений: Пер с англ. - М.: Наука, 1977. – 352 с.
5. Aleksandrov I., Scenarios of the old industrial regions' development: selecting the methodology / I. Aleksandrov, V. Vishnevskiy, O. Polovyan // *Environment, Development and Sustainability: Springer Science + Business Media B.V.* – 2010.
6. Lovelock James. (1995) *Gaia. A New Look at Life on Earth*. Oxford University Press,

1.5 INTERNATIONAL COORDINATION OF ECONOMIC POLICIES AS A EUROPEAN PERSPECTIVE FOR SUSTAINABLE DEVELOPMENT

The rate of internalization of the global economy was overwhelmingly increasing for two decades up to world economic crisis of 2008. The dynamic development of world markets has put the issue of coordination of national economic policies at the global level. But the global economic crisis, revealed the failure of key economies of the world for developing of a coordinated plan of anti-crisis measures or harmonize national economic policy. Tough debt crisis that manifested especially among European Union countries, was evidence of the absence of an effective mechanism for coordination of fiscal and monetary policy even in the face of close political and economic integration.

Euro area within which monetary policy is implemented by supranational body – the European Central Bank, – has become an example of inefficient coordination among member governments on economic policy. Instead of an integrated economic union of international cooperation, the euro area is considered to be almost as one of the main factors for the deployment of the debt crisis.

The deep economic crisis showed significant differences in the principles and instruments of national economic policy in world's largest economies. The lack of adequate institutional framework through which countries could coordinate fiscal and monetary policy became apparent. Economic interests of the major player fell in conflict during the crisis. The internalization of the world economy, which accounts for the high degree of dependence of national economies from one another, resolving this conflict lies in joint actions in the area of

macroeconomic management. Applying of the principles of optimization theory can help develop the basic approaches for such coordination [5, p. 76]. In the absence of institutions that could take the authority to coordinate national policies, the concept of equilibrium can serve as the cornerstone of the international coordination of macroeconomic policies.

From an economic perspective, the institutional structure of the EU must, above all, to provide a high level of coordination between the national policies of the Union. This is due to the fact that otherwise the benefits of integration are smaller and losses – higher. But the question is in that what kind of coordination it should be. Of course, the structure of the national economies of the European countries is different, national governments use different policy instruments, the behavior of economic agents in different countries also have their differences. The process of convergence has not been completed.

In terms of economic and monetary union centralization of monetary policy is held, which is now independent of any other authority who holds the European Central Bank. The objectives of the ECB are proclaimed in its charter – price stability and promotion of economic development of the EU to the extent, which impose no prejudice to price stability. The impact of fiscal policy on the national economy becomes less straightforward because of the creation of economic and monetary union. Fiscal expansion does not result in adequate growth in domestic demand, so that the free movement of capital, goods, services and labor promotes positive effects of this expansion into other national economies. But the growth of public debt in such circumstances does not lead to higher interest rates because capital inflows helping to fund government spending [11, p. 223]. Thus, a centralized monetary policy can be an effective tool for ensuring of economic interests if those interests are not homogeneous. But the debt crisis in Greece and severe awareness about Italy, Portugal and Spain challenges that conclusion. The effectiveness of national budgetary policies is questionable. The only way to fight asymmetrical and symmetrical crises is to coordinate these policies. International co-ordination of economic policies is extremely complex process. First, such coordination should ensure the achievement of economic goals of each country. Second, coordination should contribute to developing of the most effective policy of the possible options that could counteract the crisis and ensure economic growth. Third, coordination should not be a source of great economic cost to the country. Fourth, the coordination system should provide prompt adoption of mutually beneficial solutions. Fifth, the international system of economic policy coordination should provide some flexibility at the national level. In order to meet all requirements, the coordination system is supposed to have its own institutions. The authority of the institutions broadens on developing a common economic policy. Institutions act as intermediaries and consultants in the negotiations between countries or

in resolving of international conflicts. Also institutions are assumed to control execution of decisions. Central authorities of the EU institutional framework for the development and implementation of economic policy is the European Commission and the Council.

The Commission, which is the center of concentration of expertise in the EU, ensuring the effectiveness of common economic policy, within which there is coordination of national economic policies. The Commission constantly monitors the macroeconomic environment in the EU and using the right of legislative initiative, is responsible for implementing of a new economic policy. The Council, in turn, ensures the achievement of economic goals of all EU countries. The constant dialogue among countries with common problems helps to solve economic problems through mutual cooperation. The Council adopts the decisions in the interests of the EU. Based on this, we argue that the effectiveness of coordination, and hence the effectiveness of macroeconomic policies of European countries and the EU as a whole, depends on the ratio of supranational and intergovernmental principles of economic management from the interaction of the Commission and the Council , which are central elements of the institutional structure of the EU.

Relationship between flexibility and efficiency of the coordination of national economic policies depends on the degree of divergence of economic objectives from policy tools they use, and the general state of the global economy. Economic theory offers two arguments in support of macroeconomic cooperation at the international level: static externalities and system instability [1]. The first argument is that national economic policies affect the economies of other countries, so it becomes possible to overcome externalities of an uncoordinated policy by the principle of Pareto optimization. The second argument concerns the problem of currency speculation, which is able to destabilize the system of exchange rates in the absence of co-ordination of economic policies at the international level. For the euro area, of course, the first argument is more important.

It is necessary to distinguish between the broad concept of cooperation, which mostly does not go beyond the usual exchange of relevant information and a narrow idea of cooperation, the essence of which is about developing a common policy. The economic interdependence of European countries usually helps to create conditions for the development of interstate economic cooperation. However, in order to analyze the external effects must be distinguished from non-contentious conflicts. The most important feature of non-conflict situations is the best policy choice of a country dependent from another country's action (or vice versa) when none of the countries prefers any other state and tries to achieve the identity of interests internationally. In

this case, only limited forms of coordination, such as the exchange of information on the policies may be necessary and can be justified as cost effective.

Suppose the country holds its choice about instruments of economic policy independently. The clear answer about implied effects is impossible to give without additional assumptions. The first of them considers the mutual awareness of partner countries about effects of their moves on each other. In the case where the country will make their choice at the same time, they are likely to reach a Nash equilibrium: no country can make the best choice, given the choice of another country. But no matter where the equilibrium is reached, the countries receive the incentive to coordinate their policies, because in any case remain opportunities for optimization by Pareto type remain.

It can be concluded that in the case of conflict among countries that independently conduct their policy coordination allows all of them to get positive. But two problems that hinder the process of coordination may be identified. First, if moving to "contract curve" is mutually beneficial, the choice of a particular point disputes the interests of different countries. Second, the fact that none of the Pareto-optimal points belongs to any "direct response", each country has an incentive to unilaterally change its sole option and benefit by increasing economic welfare. Therefore, effective coordination is impossible without mutual agreement on the redistribution of winning and securing those agreements by means of special agreements or an institutional structure.

Now consider a non-conflict situation that necessitates not a cooperation framework, but a simple coordination. One should assume that countries are using fiscal policy instruments to stimulate the growth rate of GDP. But the level of GDP in both countries depends on their own policies and politics of other countries. If every country can achieve their own goals within any choice of tax policy in other countries, the countries will not come into conflict. A similar conclusion is valid in the situation when any country cannot achieve their goals, regardless of tax policy of their partners. As in the first and in the second case, the impacts of the tax policy of the country on the process of achieving the objectives of each country are uniform in their effects. Any country can, through its policy instruments, neutralize the effects of policy changes that have occurred abroad. Thus only a minimal degree of cooperation is necessary for the optimal equilibrium position.

More sophisticated models include both conflict and space for coordination. It to Suppose that under a floating exchange rate and the free movement of international capital the countries define their goals for the level of GDP and inflation, using interest rate as an instrument of policy [1, p. 152]. Terms of models provides that the exchange rate is determined by the difference in

domestic interest rates and the level of production, depending on the level of aggregate demand (domestic demand and exports). Inflation in turn depends on the level of production and of an exchange rate, in other words the depreciation of the currency is a direct effect of inflation through higher import prices, as well as an indirect effect through increased export share of GDP.

Assuming that countries determine their level of interest rates simultaneously and independently. Under the terms of Nash equilibrium, no country is interested in lowering of interest rates. Such a move would lead to an increase in both demand and production, but also provide a double incentive to increase inflation – due to a direct effect due to increased demand and an indirect effect due to the devaluation of the currency and raising of the price of imports. Of course, the increase in production is a positive result, but inflation at least compensates the effect. From this example we can conclude that interest rate policy coordination provides benefits to both countries, as inflationary pressure persists due to rising import prices. Lack of coordination causes the whole system to move in a deflationary direction as a result of "competitive revaluation" of national currencies.

Returning to the arguments against coordination, attention should be paid to the five factors: the development costs of coordination, the cost of implementing of this system, differences in assessing the effects of coordination costs associated with the level of confidence in the system of coordination, partial coordination costs (development unit). If combine the first two factors, the need for comparing the benefits of coordination and costs associated with finding and consistent decisions on national economic policies, as well as the identification and punishment of violators of the agreements becomes evident. The above factors are extremely important while determining the forms of coordination.

Differences in the assessment of the effects of a policy in terms of coordination are not, at first sight, an obstacle to coordination. But the process of coordination is moving faster when participants can become well aware of each other goals and reach a consensus on the interdependence of tools and targets. For example, countries can choose very different ways to assess the impact of monetary policy on the real exchange rate. Therefore, even if an agreement on stabilizing of the real exchange rate was reached, the country would be inconsistent to treat the coordination of monetary policy.

At first glance, the level of confidence in national economic policy coordination increases over time. But if monetary policy is not subject to coordination between countries, the degree of reaction of the central bank will be limited to possible relative loss of competitiveness in international markets as a result of higher production costs as a result of wage increase [6, p. 68]. Therefore, if central banks act together they adjust to inflation, if they act independently of each

other, the banks try to deal with it. In this case, the result of the coordination is the acceleration of inflation. The only solution to this problem was the creation of an independent central bank in the European Union.

There are several dimensions of coordination that is necessary and useful to distinguish. If the countries take a certain set of macroeconomic instruments and objectives, and do not share interim and final targets, the coordination systems differ depending on the limits of coordination (i. e. the number of areas covered by the process of coordination), the orientation (as on tools or on purpose) and the general characteristics of the process (which may be discretionary or based on a system of rules) [9, p. 177]. Coordination of the second type involves the development of specific rules within which countries develop for their economic policies, making use of some discretion. Discretionary nature of coordination means that agreements between countries are determining, primarily, procedures for development and implementation of common policies, not their content. But if the process is not supported through coordination mechanism that would provide mandatory common policy for all countries, is any contradiction between the countries for which no compromise was found, meaning a return to economic regime without the coordination of national policies. The creation of such a mechanism in the form of principles that define the process of developing policy, clear rules of voting and transfer a certain percentage of national sovereignty (ie separate powers) to supranational bodies such as the EU institutions means the institutionalization process of the discretionary coordination.

With respect to each of the above dimensions of coordination we can make a few general remarks. If we consider the limits of coordination, it is necessary to separate the internal and external aspects of economic policy coordination process and restrict only the external aspects that will reduce the "costs of coordination". The most obvious indicator of economic relations between the countries and common to all countries in the sense that they cannot independently establish its level is the exchange rate. Therefore, the coordination of exchange rates is the most frequently mentioned example of economic coordination. Exchange rate system may be symmetric when the loss or gain are equally distributed between countries, or hegemonic, when all obligations to conduct appropriate measures shall be put on one country. The experience of recent years may give grounds for concluding that the symmetric system eventually evolves into a hegemonic. Economic and monetary union can save the symmetric nature of the coordination of exchange rates, as the replacement of national currencies single currency does not allow countries to put pressure on any country to change the requirements of national monetary policy.

However, coordination of exchange rates, real or nominal, smoothing the impact of external effects operating through the exchange rate (for example, competitive devaluations),

leaves without addressing other aspects of foreign relations, and sometimes can help to intensify the negative impact of other externalities. For example, the more stable is the system of exchange rate, the less significant is the impact of budget deficits on interest rate relative to the international level. This means reducing the pressure of market conditions on fiscal discipline. So the question of whether co-ordination of exchange rates contribute effectively to stabilize the system in the free movement of capital between countries remains open. Of course, the possibility of joint intervention in currency markets provides some benefits to central bank , but the fixing of exchange rates for speculators often means the creation of so -called "one-way option" [7, p. 94]. Taking into account this possibility, the transition from a system of fixed exchange rates to monetary union is more attractive alternative in the presence of coordination of national budgetary policies. For this reason the introduction of the euro would not have been possible without the Stability and Development Pact.

The big advantage of instrumental orientation of coordination is transparency, thus reducing of the coordination costs of detecting any abnormalities and adverse effects. When the targets that were agreed upon, cannot be achieved, governments can always refer to factors beyond their control. Main criticism of this orientation is that the economic crisis occurring in one country can cause a change in policy instruments in its best interest. Suppose that country within the coordination process agreed to expand fiscal policy expansion, which allows national economies gain momentum for growth, and the government – to avoid deterioration of the trade balance. But each country will be interested in compensation to the explosive growth in demand that occurs during the reduction of the tax burden [3, p. 108]. In terms of instrumental-oriented coordination it is necessary to further negotiate the joint development and use of new tools, while the target orientation is characterized by the automatic re-examination of policy in this situation.

Paying attention to the choice between coordination and adaptation based on based on a system of rules three benefits of the most recent method of coordination should be noted. First, negotiations often do not continue more than one round, which determines the rules that countries must follow in the process of coordination. Secondly, a clear demarcation line between national power and international responsibilities, which is crucial for the internal political processes. Thirdly, the rules that were set at the international level, help governments to improve the confidence of the domestic economic agents in their policies. In the system of fixed exchange rates in which the anti-inflation type behaviors of the Bank is predominant, (for example , the Bundesbank to the European Monetary System), the official fixing of the currency and a formal introduction to the system may be regarded as obligations of the government to retain a fixed rate of its currency. Joining of the system of fixed exchange rates reduced inflationary pressures in the

country, as participants in the process of setting wages are less inclined to rely on adaptive type of behavior of the central bank. This effect is enhanced only if the system of fixed exchange rates evaluates into the Economic and Monetary Union.

Despite all the advantages of the rules, it would be a mistake to assume that the optimal deviation of exchange rates is zero. For example, in a system of fixed exchange rates the new equilibrium level of the real exchange rate can be established only through a complex process of revision of nominal exchange rates. If the balance relies on the process of adaptation of national price and wage paid to the new optimum, it may cause large economic costs. Therefore, the coordination system based on rules, often includes a discretionary mechanism in the form of changes in the rules of procedures. The main feature of this system, which distinguishes it from the discretionary system consists in that a rule change is not a planned and regular process. But the level of economic costs associated with this problem, can significantly decrease under economic and monetary union [8, p. 62]. Discretionary institutionalized coordination has advantages over coordination, based on a system of rules only when the flexibility of decision-making is of paramount importance. An example is the fiscal policy of the EU and its Member States, so that the choice of the tax system depends on the macroeconomic objectives and the type of externality that needs to be overcome through coordination. If the purpose of coordination of fiscal management is a joint aggregate demand, discretionary fiscal policy coordination will be more effective. But if the goal is to maintain a certain level of international indebtedness, effective coordination may be limited to rules governing mid-level budget deficits.

Discretionary coordination often occurs in the form of anti-crisis program or package deals. The increase in oil prices in 1974 is an example of a situation that required urgent development and implementation of anti-crisis measures. The economic downturn in developed countries, observed after the oil shock is a direct consequence of the unilateral action to limit external deficits by "exporting" it to other countries. The ability to overcome negative externalities by coordinating oriented adaptation was lost. But the package deals as a result of discretionary coordination, often introducing reforms that are Pareto- optimal for the set of countries, but unfavorable to some of them.

The European Union was faced with a dilemma which coordinate system to choose. The main conflict lies in the efficiency of ratio of common economic policy and economic security interests of the Union. In terms of the single monetary policy of the EU anti-crisis the only one tool left to national governments is fiscal policy. But the Stability and Development Pact, as it has been said, significantly limits its capabilities. Therefore, national governments should choose a model to coordinate their policies that would allow them to be flexible to respond to the

deteriorating of economic situation. Institutionalized coordination discretionary model can provide such flexibility. The presence of inter-governmental organizations, especially the Council of Europe, the institutional structure of the EU allows countries to reach quickly the joint decisions on economic policy coordination [10, p. 386]. At that time both supranational institutions, especially the European Commission, on the basis of the agreements, and increasingly on their own initiative, develop, propose and implement new joint legislation that gives binding force of the decision taken for execution.

A new economic situation, such as an oil shock, the introduction of a single currency or the EU accession of new members will require the development of new economic constitution of the Union, which is the base for the entire integration process, not only for the coordination of national economic policies. Mechanisms for the implementation of the new constitution is European integration agreement. Signing each of these agreements prior long process of negotiations between the European states, the coordination of national interests, lobbying for certain political decision-making methods, achieving compromise. This mechanism is unfit for the coordination of national economic policies because it does not provide a quick and flexible response to developments in the economy. Therefore, the system of coordination is based on the rules, but also allows countries to enjoy some freedom to develop their own economic policy is not effective in terms of the EU. Discretionary model is more flexible, although it slightly reduces the economic sovereignty of the state. But economic policy coordination does not mean their unification and this is very important. The heterogeneity of the structure of the national economy of European countries can not apply a single policy for all EU countries [8, p 72]. Therefore centralization of monetary policy, which is a necessary step program completion of the single market, does not lead to the centralization of fiscal policy. Coordination of decentralized budgetary policies will not only increase the effectiveness of this policy of each individual EU member states and get rid of negative externalities.

In addition, as the further convergence of national economies of the EU, discretionary coordination will be the basis for the gradual introduction of a common macroeconomic policy. Supranational institutions of the EU are in the middle of the process. The competence of the European Commission in terms of analysis, design and implementation of economic policies will enable it to become the nucleus of the future, EU bodies will assume regulatory functions. An important aspect of the process of gradual progress towards a supranational regime of economic regulation is the European legislation. Intergovernmental EU institutions, although crucial in determining of the future direction of joint action, including joint economic policy or coordination of national policies, shall act within the European legislation, based on a European

agreement. But these deals are always a compromise, because their situation does not give any detailed instructions for the process of developing policy or any requirements for their content. The agreements set only for the whole EU. The exclusive right of interpretation of the provisions of the Europe Agreements in accordance with the specific economic situation is the European Court. Supranational nature of its activities and pro-integration orientation allows to turn European legislation on the foundation of a supranational regime of economic governance.

The only limitation of such supranational governance in the EU in the long run is its inability to pursue a common economic policy that would have prevented the national interests of the EU countries. But in the medium term development of the institutional structure of the EU has allowed the system to function effectively and coordinate economic policies. Analysis of fiscal policy of the EU countries gives grounds to assert that it is an effective tool for accelerating of economic development and for overcoming of the economic crisis in this country. However, the policy of fiscal expansion has negative externalities that lead to a decrease in revenue of other EMU countries. The greater the monetary union is, the more positive effects of national fiscal policies will dominate its negative externalities, resulting in total revenue of the Union will increase. In addition, fiscal expansion has positive external effects that can be used without any restrictions from the economic partners of the EU. Co-ordination of budgetary policies will reduce the negative external effects and reduce the level of budget deficit and public debt in the EU. Therefore, long-term negative effects of an increase in government spending will be much lower. This corresponds primarily to the interests of small economies of the EU, which will also apply to Central and Eastern Europe.

Coordination can be expressed in the distribution of positive effects across countries. In both cases, the necessary common institutions that would be able to carry out this coordination and monitor the impact of fiscal policy on the economic situation. Single monetary policy has external effects. The increase in the money supply has a positive impact on the economy of the EU states. But the depreciation of the Euro causes EU export growth in exports and trading partners of the EU. Orientation ECB policy to support price stability avoids conflicts with trading partners in the EU. Also centralized monetary policy excludes policy of "competitive devaluation" in the case of deep crisis caused by external factors.

Centralized monetary policy of the EU creates the macroeconomic environment in which each country must choose at its discretion required type of fiscal policy. But in the context of convergence of national economies, the effectiveness of a mixed policy requires that a single monetary policy is supplemented by similar national budgetary policies [13]. According to the analysis of economic development in the EU over the past two decades, an increase in GDP per

capita is primarily due to increased levels of productivity, and then with capital intensification of production. We suppose that in one of the EU countries increased nominal wages. As a result, prices have also increased. ECB under these conditions will produce a tight monetary policy to reduce inflationary pressures. As a result, interest rates will increase, which will contribute to the euro appreciation. Economies of other EU countries will have to be pushed into deflation.

This is especially true in countries where the level of labor productivity is lower. However, the ECB has tools to influence the employment contracts and wages, so it is not able to eliminate the cause of inflation. Structural labor market reforms that aim to increase flexibility require significant budgetary costs. Therefore, the coordination of budgetary policies in the EU should focus not only on anti-cyclical action, but also on the structural reform of national economies. Because of high unemployment – a major economic problems of the EU – which are not strictly cyclical and structural factors [14; 15; 16], a reform of the entire system of economic regulation is not simply; an increase in public spending is needed. The concept of a balanced budget means that fiscal expansion becomes only an instrument of fight against cyclical downturns.

1. Artus P. (2007), Une «guerre des productivités» après l'unification monétaire? – Paris: Caisse des dépôts et consignations.

2. Artus P. (2007), Must nominal convergence be achieved before or after monetary unification? – Paris: Caisse des dépôts et consignations.

3. Baldwin R., Skudelny F., Taglioni D. (2005), “Trade Effects of the Euro: Evidence from Sectoral Data”, ECB Working paper Series, No. 446.

4. Commission européenne. (2012), Rapport économique annuelle 2012 // Economie européenne.

5. De Grauwe P. (2005), “Economics of Monetary Union”, Oxford University Press, Fourth Edition.

6. De Grauwe P., Mongelli F. P. (2005), “Endogeneities of Optimum Currency Areas: What brings Countries Sharing a Single Currency Closer together?”, ECB Working Paper No. 468.

7. De Santis R., Gérard B. (2006), “Financial integration, international portfolio choice and the European Monetary Union”, ECB Working Paper No 626.

8. Giannone D., Reichlin L. (2006), “Trends and cycles in the euro area: how much heterogeneity and should we worry about it?”, ECB Working Paper No 595.

9. Mongelli F. P., Dorrucchi E., Agur I. (2007), “What does European institutional integration tell us about trade integration?”, Integration and Trade (IADB), Vol. 11 nr. 26 pp. 151-200.

10. Smaghi L., Casini C. (2000), Monetary and Fiscal Policy Cooperation: Institutions and Procedures in EMU // Journal of Common Market Studies. – Vol. 38, No. 2. – C.375-391.

11. Wyplosz C., (2006), “European Monetary Union: The Dark Sides of a Major Success”, Economic Policy, April (46), pp 207-247.

1.6 EVOLUTION OF MARKETING AND SUSTAINABLE DEVELOPMENT

One may observe a difference in nature between two concepts: 1) “sustainable development” is presented more often as an ought to or desired by the entire community, notably with the simultaneous achievement of economic, social and environmental goals; 2) “marketing” is a function of management of organizations. It is often presented as a set of levers to adapt the production and operation of enterprises to market. Its aim is to maintain an organization "in phase" with its public.

The link between these two notions of a different kind arises mostly in two situations: first, when organizations get acquainted with the growing awareness of market participants (consumers, distributors, suppliers, competitors, etc.) of the sustainable development challenges; second, when, by strategic choice, organizations decide to hire their civic or societal responsibilities for all activities and implant them in all managerial functions (i.e., production, procurement, human resources, finance, R&D and marketing, etc.) they deploy [19].

More detailed analysis of the contents of these two concepts can lead us to clearer definition of what opposes them and what, in turn, makes them closer. The short-term imperative, for example, is rather a source of divergence under pressure including financial requirements. Marketing must submit to constraints of speed ("time to market") and exigencies of immediate profitability (increased turnover with lower costs), whilst sustainable development requires, in many cases, the temporary denial of certain margin targets.

Marketing and sustainable development also seem to oppose on how to enter the competitive game. Marketing is most often placed in the logic of competition. Its concepts and tools are sought to differentiate the possible offer and try to do better than others, to outdo what competitors offer. Sustainable development does not reject the idea of competition under condition that it can be framed by rules applying to everyone, particularly in terms of social responsibility and environmental responsibility. It encourages strategies that can be described as conservative, in which the notion of cooperation tends to replace that of competition: partnership agreements, common standards, alliance systems, etc.

Sustainable development is also defined as the idea of a response to needs. Certainly, it introduces the risk of a conflict of interests between immediate satisfaction and responding to future needs. Nevertheless, the marketing approach in no way precludes the recognition of long-term concerns in motivations of customer and for searching of criteria for selection of goods by consumers. It is marketing in business which, at least in theory, has to prepare all other functions within an organization to challenges of tomorrow. The assessment of potential development in

the medium and long term, even when it is directed to serve industrial or financial strategies first, can be achieved only by integrating a set of changes of demographic, environmental, social, cultural, technological, and institutional nature.

Marketing has long been considered on the level of microeconomic and functional management as a tool for reaching *corporate* goals through activity in the market. When marketing was first recognised as a business activity, it was essentially an adjunct of production and agriculture. It was seen as a mean of exchanging and delivering standardised farm commodities and of bringing manufactured products to market [2, p. 9]. Over the time, the concept of marketing has been considerably shifted. "It introduces... marketing... at the beginning, but not at the end of manufacturing process and integrates it in every phase of a business". After a number of years the focus of marketing was still broadened further to include "the transactions between an *organisation* and all of its publics" [16] and social responsibility of marketing actions that are to be aligned with welfare of a community around it. "Socially responsible marketing is a marketing philosophy that states that a company should take into consideration what is in the best interest of society in the present and long term" [14, p. 48]. However, even within the social and ethical responsibility concept, marketing remains a tool that mostly operates at the micro level.

The concept of marketing orientation (MO) reflects a confinement of marketing within an organisation. MO has been a core philosophy underpinning corporate marketing management since the middle of the last century [12; 13; 21].

This concept has contributed a lot in developing marketing activity of an organisation, though left open an important question of *how* in practice social well-being can be traced from fulfilment of organisational goals in the market.

As it can be seen from fig. 1.6, MO supposed to consider mostly an immediate circle of an organisation, including competitors and customers, but not a community or broader, society with its interests and concerns. Therefore, a development of marketing concept and practice has mostly been caused and limited by close environment, with which marketing activity is to be aligned. In this framework marketing is suggested, firstly, to secure a profitability of business independently from whether it simultaneously contributes to sustainability or not. From this point of view, business profitability, in turn, depends on an ability of an organisation to adapt its policy to this close environment. [4; 21]. Thus, marketing becomes an instrument of adaptation of an organisation to the market.

Since the Brundtland Report [25] has been published, there is an increasing interest to the concept of sustainable development and its drivers.

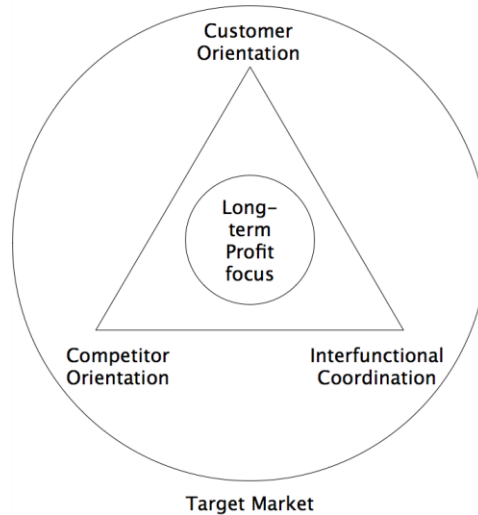


Figure 1.6 – Model of market orientation (hereinafter MO) [21]

The report includes special sections devoted to economic issues, drivers and impediments for building "our common future". "The satisfaction of human needs and aspirations is so obviously an objective of productive activity, that it may appear redundant to assert its central role in the concept of sustainable development" [25, Ch. 2, sec. III(3)]. Since that, an imperative of being responsible, in terms of sustainability, should encompass management of an organisation and marketing management in particular. Thereafter, the question of a role, that marketing policy of an organisation could play in sustainable development, has been put forward.

As a response to ecological threats, many works have been published since then, which shape a strong need for organisations to be ecologically oriented. In this context, the role of marketing in sustainable development reduces to so-called "green marketing". We believe this approach is insufficient. Although, there is academic recognition of the importance of environmentally responsible marketing; this view proposes an inadequate synthesis of the social, economic, and environmental management factors as called for under the concept of sustainable development [20]. Since sustainable development is supposed to lead to better satisfaction of human needs (that implies not only needs of ecological nature), and herewith to positive subjective well-being, it is a marketing task not only to communicate and respond to societal concerns (e.g. Ecological) but also to maintain and increase an ability of an organisation to get results. In other words, marketing has to promote an organisation to sustainable development through sustainability of business itself, which in turn is to lead to increase of subjective well-being. This requires a better understanding of linking between marketing and social well-being (happiness). What is the question now is *how* marketing management has to be organised in order to be able to contribute to the sustainable development moving further than ecological concerns?

First attempts of linking marketing with social well-being track back as early as the concept of social marketing appears. Beginning in the 1970s, it has over the last decades matured into a much more integrative approach that draws a variety of social and economical disciplines, including marketing [15; 16]. In that context social marketing should not be confused neither with marketing of not-for-profit organisations, nor with social media marketing, emerged recently. The concept of social responsibility of marketing calls for outcomes of marketing activity of *business organisation*, which shape social and subjective well-being.

It is worth noting that also in 1970s an idea of happiness as a goal of economic policy has been explicitly stated [8]. It is easy to link a notion of happiness with sustainable development that means "to ensure that it (development) meets the needs of the present without compromising the ability of future generations to meet their own needs" [25]. It may be argued that happiness is the fundamental goal of people, because to be happy is a goal in itself. That is not the case for other things we may want, such as job security, status, freedom, and especially money (income). We do not want them for themselves, but rather to give us the possibility of making ourselves happier [8].

Three sets of factors, which have direct impacts on subjective well-being, have been reported: (a) demographic factors and personality, (b) social and economic conditions, such as unemployment, inflation, and state income level (e.g., GDP), (c) institutional and cultural conditions in an economy and society [7; 17; 22; 23; 26]. Marketing may have a substantial impact on subjective well-being and thereafter to sustainable development as it influences at least two of three sets of factors mentioned above. First, marketing is a powerful tool for development of social-economic conditions via stimulating entrepreneurship and consumption. P. Drucker (1992) stated, "Marketing is ... the most effective engine of *economic development*, particularly in its ability rapidly to develop entrepreneurs and managers". Second, it has an impact on institutional and cultural conditions since consumption has become an instrument of self-expression. Consumption of goods is in fact a consumption of value, which in turn is determined by utility attributed to the value. One of kinds of utility is attributed to self-signaling (self esteem) [8].

Macromarketing paradigm offers persuasive grounds for adjusting marketing management to economic development and macroeconomic level. It starts from Fisk's definition of market as "the provisioning system of society" [6]. Hunt (1981) suggested, "...macromarketing is a multidimensional construct, which refers to the study of (1) marketing systems, (2) the impact and consequence of marketing systems on society, and (3) the impact and consequence of society on marketing systems. From this point marketing may be defined as a subsystem of society's

adaptation to its material environment" [3]. "Sustainable marketing is, among other things, an appeal to lengthen corporate time horizons and value continuity over profit. Most importantly, sustainable marketing is an appeal to accept the ecological *and* social limitations of the conventional corporate marketing philosophy" [27].

However, it is not an easy task to track marketing and subjective well-being. Pan concludes that "marketing, in a multivariate setting, does not automatically enhance subjective well-being on a national level. Marketing activities may not directly contribute to people's perceived quality of life for various reasons" [24]. At the same time, there is a room for rethinking of these findings, as an impact of marketing for subjective well-being was mostly reduced to promotion, advertising, and retail, while one should not neglect a crucial role marketing may play in distribution of resources and stimulating demand. Vorhies found that "marketing organisation fit with strategic type ... is significantly associated with marketing performance" from one side, and a proper strategic type of an organisation is a key factor of market success [28]. Whereas market success opens broader opportunities for better allocating resources and satisfaction of human needs and aspirations; there is an evident link between marketing policy and sustainability beyond ecological concerns. As economic development is meant to promote sustainability, marketing should play an important role in it.

Layton (2009) points out that "If the marketing systems that play such a central role are poorly adapted to the environments in which they operate, or lack in health, resilience or responsiveness, for structural or functional reasons, then growth and ultimately quality of life will be directly affected". From a macromarketing perspective the main function of marketing is to foster exchanges which are much broader than deducting marketing impact on advertising, promotion and retailing.

Whether it has a direct link to subjective well-being, or not, societal concerns and aspiration for subjective happiness will not cease to influence customer behaviour, and therefore, marketing management. May this influence sometimes is not so visible, especially in economies in transition, marketers nevertheless, should know: (i) how to plan marketing activity in order to align with corporate goals and societal welfare; and (ii) how to implement marketing activity in this way.

It has been MO concept that encompasses marketing management as an adaptive tool of an organisation. This call for reconsidering the management of marketing due to a need for promoting sustainability leads to reshape of MO in order to provide an organisation with a new, broader paradigm for planning and tracking marketing activity aligned with organisational goals and sustainable development.

Dominant economic drivers call for maximising corporate profit and shareholder returns through efficient management of resources and competitive marketing that is responsive to customer needs [28]. Such an approach means that shareholders and customer needs should be adjusted, in other words, distribution and allocation of resources should be harmonised with a proper response to customer needs, which shapes not only rational or immediate utility, but also subjective well-being. In order to promote itself to sustainability an organisation should take into consideration three sets of factors: (a) economic, (b) ecological, and (c) societal. Hence strategic marketing orientation has to mix a traditional MO, macromarketing, corporate social responsibility, and ecological orientation. As sustainability heavily rely on management of knowledge [9; 10], reshaping MO has to include a building of learning organisation. Thereby, in the market economy, an organisational performance is to be a synthesis of *sustainable marketing orientation* and *organisation of learning*.

According to Mitchell [20] this strategic (or in his terms "sustainable") marketing orientation may be seen as follows (fig. 1.7)

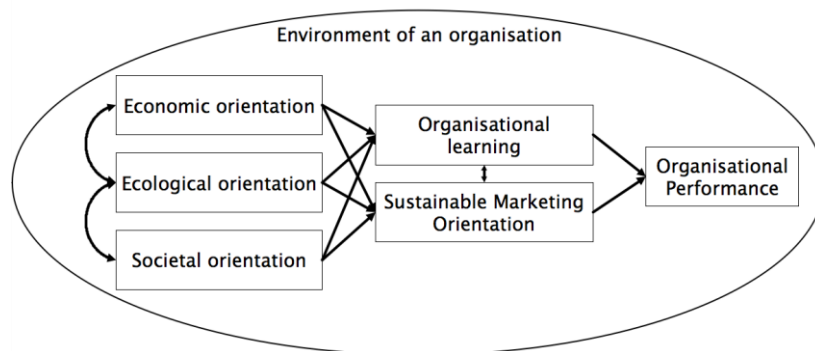


Figure 1.7 – Strategic (sustainable) marketing orientation (hereinafter SMO) model [20]

Under the proposed SMO model, marketing management moves beyond MO's market-based limits to corporate marketing reinforced by long-run strategies that aim to meet market expectations by the competitive and environmentally responsible distribution and allocation of resources.

On the concept level, advantages of SMO over MO are significant, since there are broader sets of parameters, which marketing plans and performance should be consistent with. Moreover, there is an increasing number of possible combinations that allow an organisation to find and elaborate new opportunities of running business. It clarifies that there are other than economical interests of stakeholders and therefore, an opportunity to consider them in marketing planning and execution. As a result of a more comprehensive analysis of corporate relationships with societal and environmental stakeholders, corporate strategists with richer information on latent

consumer demand for existing products and greater understanding of developing consumer trends in product and service demand may be provided [20]. SMO does open a room for proactive planning, resource allocation and distribution, and, in general, proactive marketing policy that is in the best interests of stakeholders, customers, and sustainability.

SMO implementing is seen depending upon a capability for self-organisation in order to secure current position and be consistent in the chosen direction; performance effectiveness, adaptability, ability to coexist effectively with other organisations, including not-for-profit ones, and adjustment to stakeholders interests.

An organisation's propensity to implement SMO depends upon its ability to understand an entire variety of needs of customers and shareholders, and to articulate an adequate response in terms of added value on all three levels of SMO: marketing, ecological, and societal orientation. In other words, it goes about an effective and extended marketing information system and a quality of stakeholders' commitment, and, from the other side, about effective brand management which implies a multidimensional message of an organisation and creates an integrative content.

A review of literature about the role of marketing in economic development and promoting sustainability, undertaken in the article, confirms a growing sophistication of marketing management.

Given from the microeconomic perspective, it is inadequate in proposing marketing measures as it lacks necessary tools and concepts allowing its adjustment with a need for sustainability. Short-run goal setting and seriously limited view on society's interest are the most obvious vices of the microeconomic approach, which influence an effectiveness of an organisation itself.

At the same time, an implementation of sustainability concept moves further than developing a sole ecological orientation. It has to include a wider range of societal concerns connected to a *subjective well-being*. A more sophisticated, multidimensional map of sustainable marketing has to be consisting of economic, ecological and societal orientations. Marketing management can be adjusted to sustainable development tasks by implementing SMO model.

The idea of marketing being more involved in the concept of sustainable development can only be realized if an organization is open in its professional culture and its strategic thinking, consideration and integration of these issues in the rationale and development within the company itself. Marketing tightly integrated with sustainable development can be a source of efficiency and effectiveness at the same time.

Firstly, it gives a specific content to the concept sometimes seen as too general or also abstract. The integration in the search for more efficient solutions considering social or

environmental issues, and motivations related to attitudes and behavioural patterns of individuals and groups increases the operational scope of marketing projects or programs oriented to sustainable development. The use of concepts and tools of marketing also helps to strengthen the effectiveness of the dialogue advocated by sustainable development approaches. In particular, access to a more detailed knowledge about the expectations and motivations of different stakeholders, brings out the risks of misunderstanding, opposition and identifies, on the contrary, the possible areas of cooperation or compromise. Similarly, the relational dynamic "win/win", introduced by marketing, stimulates creativity in different parts along the research lines, sharing more satisfactory for everyone and generally more efficient.

Placed at the service of new types of social demands of environmental nature, or adapting to ethical considerations, concepts and methods of marketing can only be enriched. The long term intelligence, the ability of individuals and companies to connect what is being undertaken today to more distant issues, more complex developments, opportunities, which are not yet mastered, are also expected to be reinforced by sustainable marketing orientation.

Customer satisfaction is well known to increase and accumulate over time, not only when the customer considers being fairly rewarded for his (her) money. The satisfaction is also increased when there is a valued link echoing concerns and values to which the person is attached, as well as a recognition of his (her) own competence as a professional or citizen. It is this ability of the company to provide its customers, both economic return (value for money) and psychological return (ethical status and reward), which anchors the long-term satisfaction and becomes a source of creation of a real value.

These contributions and these enrichments, related to introduction of sustainable development goals in marketing, do not question the fundamentals of marketing, but they mark a significant change in using the concepts and tools. They expand the scope and assessment thereof and contribute to change in a positive sense the image of marketing as a business function and as a discipline of management science. It is perhaps in this sense of a renewed effort by listening and looking and boosted by the inclusion of new requirements, as one can talk about " sustainable marketing " approach performance monitoring economic, social and environmental, conducted over a long period and in partnership with key stakeholders, could also be selected as one of the ingredients of this strategic marketing orientation [19].

1. Andreasen A. R. (1994), Social marketing: Its definition and domain. *Journal of Public Policy & Marketing*, 13(1), 108-114.

2. Assael H. (1985), *Marketing management : Strategy and action*. Boston, Mass.: Kent Pub. Co.

3. Dixon D. F. (1984), Macromarketing: A social systems perspective. *Journal of Macromarketing*, 4(2), 4.
4. Doyle P. & Wong V. (1998), Marketing and competitive performance: An empirical study. *European Journal of Marketing*, 32(5/6), 514 - 535.
5. Drucker P. F. (1992), Marketing and economic development. *Marketing Management*, (Winter), 88.
6. Fisk G. (1967), *Marketing systems: An introductory analysis*. Harper & Row.
7. Frey B. F. & Stutzer, A. (2005), Happiness research: State and prospects. *Review of Social Economy*, 62(2), 207 - 228.
8. Frey B. S. & Stutzer A. (2000), Maximising happiness? *German Economic Review*, 1(2), 145 - 167.
9. Grant R. M. (1996a), Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization Science*, 375-387.
10. Grant R. M. (1996b), Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17, 109-122.
11. Hunt S. D. (1981), Macromarketing as a multidimensional concept. *Journal of Macromarketing*, 1(1), 7-8.
12. Jaworski B. J. & Kohli A. K. (1993), Market orientation: Antecedents and consequences. *Journal of Marketing*, 57(3), 53-70.
13. Kohli A. K. & Jaworski B. J. (1990), Market orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, 54(2), 1-18.
14. Kotler P. & Keller K. L. (2006), *Marketing management* (12 ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
15. Kotler P. & Zaltman G. (1971), Social marketing: An approach to planned social change. *Journal of Marketing*, 35(3), 3-12.
16. Kotler P. (1972), A generic concept of marketing. *Journal of Marketing*, 36(2), 46 - 54.
17. Layton R. A. (2007), Marketing systems - A core macromarketing concept. *Journal of Macromarketing*, 27(3), 227-242.
18. Layton R. A. (2009), On economic growth, marketing systems, and the quality of life. *Journal of Macromarketing*, 29(4), 349 - 362.
19. Louppe A. (2006), Contribution du marketing au développement durable *Revue française du marketing*, 208(3), 7 - 32.
20. Mitchell R., Wooliscroft B., & Higham J. (2010), Sustainable market orientation: A new approach to managing marketing strategy. *Journal of Macromarketing*, 30(2), 160-170.
21. Narver J. C. & Slater S. F. (1990), The effect of market orientation on business profitability. *Journal of Marketing*, 54(4), 20-35.
22. De Neve J. -E., Christakis N. A., Fowler J. H., & Frey, B. S. (2010), *Genes, economics, and happiness*. Zurich: University of Zurich.
23. Oswald A. J. (1997), Happiness and economic performance. *The Economic Journal*, 107(445), 1815-1831.
24. Pan Y., Zinkhan G. M., & Sheng S. (2007), The subjective well-being of nations: A role for marketing. *Journal of Macromarketing*, 27(4), 360 - 369.
25. Report of the World Commission on Environment and Development (The Brundtland Report) (1987), New-York: United Nations.

26. Tella R. D., MacCulloch R. J., & Oswald A. J. (2003), The macroeconomics of happiness. *Review of Economics and Statistics*, 85(4), 809-827.

27. Van Dam Y. K. & Apeldoorn P. A. C. (1996), Sustainable marketing. *Journal of Macromarketing*, 16(2), 45.

28. Vorhies D. W. & Morgan N. A. (2003), A configuration theory assessment of marketing organization fit with business strategy and its relationship with marketing performance. *Journal of Marketing*, 67(1), 100 - 115.

1.7 SUSTAINABLE DEVELOPMENT - SUSTAINABLE ENTERPRISE AND SUSTAINABLE PERSONNEL IN THE 21'ST CENTURY

Sustainable development. Constantly increasing requirements of the contemporary world of business render a multitude of previous solutions – having been employed by enterprises for years - ineffective and outdated. Entrepreneurs search for new management methods and solutions, which aim at improving the level of their innovation, originality and effectiveness in developing a competitive advantage.

“There were plenty of changes triggered in the enterprises' environment at the end of the 20'th century. Dynamics of political, social as well as economic transformations forced organizations operating both within internal and global markets to change the manner, which they thought, functioned and managed in” [1].

Sustainable science is a quickly developing field, which appeared as a result of the sustainable development concept.

"Definition of sustainable development may be twofold. First of all, it is a process of development (of states, cities, businesses, communities, etc.), which combines the needs of the current generation with an ability to fulfill the needs of future generations, as well as to reconcile the needs of one group of people with the needs of other groups of people.

Second of all, sustainable development may be defined as “a chain of transformations, where an investment structure, guidance of technical progress and institutional structures must be carried out in such a manner as to avoid any contradictions between the current and future needs” [2]. As defined by F. Piątek, “sustainable (permanent) development is understood as cultivation and improvement of life quality of the contemporary and future generations, through proper cultivation of proportions between particular kinds of capital: economic, human and natural” [3].

When it comes to A. Pabian, sustainable development “constitutes a solution for the deepening ecological and social problems of the contemporary world, which are to alleviate or even eliminate the sustainable and permanent development” [4].

Furthermore, it is worth reminding that “environment started to accept the term sustainable development widely at the end of 1980s, upon publication of *Our Common Future*, also known as the Brundtland Report (...)”[5]. “In February 2010, the World Business Council for Sustainable Development (WBCSD) published a document entitled “Vision 2050. The new agenda for business”. WBCSD member companies, regional specialists and independent counselors took part in the process of creating the report, which lasted almost two years. Purpose of the discussion was to determine challenges of sustainable development, which the business world needs to face in the long term, as well as to identify market opportunities, which enable the companies to develop sustainably in a longer perspective” [6].

The new challenges that the enterprises are required to face currently mean that operations need to be carried out according to the sustainable development concept. Integration of economic, ecological and social aims is what allows such activity. However, it is a long-standing process, certainly connected with numerous difficulties, the most considerable of which are for example the necessity for changes in awareness of managerial staff and a need to change employees' attitudes and behaviors. Moreover, if ecological and social aspects are to be considered in contemporary enterprises management, there is a need for additional expenditures on natural environment protection, ecological activities and supporting initiatives for the benefit of the local communities.

There are no doubts anymore that if the company's competitive advantage is to be developed, actions and activities in the scope of sustainable development are inevitable. This concept is realized increasingly more often through innovative activities, leadership in various initiatives related to promotion of sustainable development, social liability for the operations carried out, implementation of ecologic solutions in the realized processes, consideration of the current needs and preferences of consumers.

One of the leading motifs in discussions referring to contemporary challenges in management, globalization and interconnected socio-economic transformations, is the concept of corporate social responsibility. “CSR is frequently defined as a moral and lawful duty towards the external and internal environment, which surrounds each enterprise” [7]. According to M. Żemigala, CSR “is a kind of responsiveness towards issues of an external environment, i.e. social conscience or ecological sensibility, as well as the ability to maintain certain balance between interests of clients, employees and stakeholders, and provision of services to the benefit of a local community” [8].

With reference to the definitions mentioned above, in accordance with M. Bernatt, “corporate social responsibility may be understood as entrepreneurs' obligation to contribute in

the socio-economic sustainable development. This obligation exceeds the minimal scope determined by legal standards, and it refers especially to the social and ecological duty” [9].

The vision of future enterprise (sustainable enterprise) – the challenges for business.

K. Kubik claims that “future enterprises need to lean on knowledge, specific culture, open information system and constructive confrontation, but first of all on the ability to learn” [10]. The future enterprises are focused on creation of new products and services, implementation of new technological solutions, on new challenges in the field of R&D, improving previous methods and techniques of management. These are the enterprises, where major significance is ascribed to knowledge management, creative approach to marketing or HR management.

Currently, the future enterprises, whose vision is based on their managers' imagination, follow the path of sustainable development. Sustainable management is a factor that determines their operation, where a leading role is played by strategic management and the ability to treat employees subjectively. As claimed by A. Pabian, “a sustainable enterprise is an enterprise that respects the principles of sustainable development, which means that apart from the economic targets it also realizes the ecological and social ones”[11]. Mowforth and Munt expanded the group of traditionally recognized ecological, economic and social targets with cultural aims, which emphasize the values of cultural heritage resources, which do not need to pose a barrier or an obstacle for dynamic growth” [12].

It is worth highlighting that “proposals regarding sustainable development of an enterprise encompass such actions as determining and following a mission and values while creating a social policy of an organization, taking into account the stakeholders' role together with preparation of corresponding cooperation programs, realization of the concept of sustainable business within the framework of the organization's strategy” [13]. “A. Chodyński believes that within an enterprise, the sustainable development concept is referred to through balancing economic, social and ecological aims in the sustainable business concept” [14].

It is obvious that balancing the aims is a highly difficult task of contemporary managers. One of the main missions of sustainable development has been to save our natural environment for future generations [15]. The clearly noticeable and dominating aim of preserving the natural resources provides the managerial staff with new challenges, not only of technological character, but also those referring to personnel management. Development of the enterprise depends on expertise, experience and skills of the organizations' employees. The competitive advantage is an achievement of people, who work in the company - both managers and regular workers.

A considerable challenge in the scope of sustainable personnel management is to develop the employees' loyalty and make them aware of significance of the role played by environment,

culture and surroundings, influencing proper and constant development of the enterprise [16]. Personnel awareness in the field of ecology or actions supporting society requires great openness and involvement on all levels of hierarchy and in all departments of the organization. Kronenberg believes that another significant factor is cooperation between business and local authorities [17].

The principles of responsibility towards the employees are highly important as well. Good working conditions, a friendly atmosphere at work and positive relationships between the employees and the managerial staff improve creativity, efficiency and loyalty of workers. People exert enormous influence on development of the company's value, as these are the human behaviors what poses a basis for effective realization of the company's strategic aims.

The contemporary enterprises are willing to compete in the market, develop systems of work based on high effectiveness, which requires higher innovation, creativity and first of all involvement of employees in realization of the corporate aims, development of its coherent image and acceptance of new challenges referring to development and improvement.

Leadership is another key challenge in the field of a sustainable enterprise management, which is emphasized by numerous scholars. "At present, the enterprises and their managers are faced with plenty of important tasks. The organizations are in need for managers-leaders, who can fill people with enthusiasm, guarantee both stability and a possibility to develop in those stormy surroundings, which they need to act in" [18].

If the sustainable development concept is to expand, then the contemporary business requires, among others: "norms that will improve access to information on economic, social and environmental aspects of enterprises' operation, cooperation and involvement of social organizations and subjects of social economy in stimulation of social activity of individuals, systemic solutions focused on promotion of good business practices in the sphere of corporate business responsibility, teaching attitudes that support cooperation on the earliest educational stages, supporting development of entrepreneurship and social innovations focused on realization of common aims of local societies" [19].

Examples of actions that might be undertaken by an enterprise within sustainable development and management encompass: "promoting team work, ethics and responsibility in the company, realization of projects for local societies in cooperation with social organizations, subjects of social economy and municipal authorities, development of social involvement of a company in a discussion with social organizations, or encouraging and enabling the employees to get involved into corporate volunteering" [20].

An interesting example of improving awareness of the local society and employees may be posed by actions taken by the Żywiec-Zdrój company. Thanks to the mayor and employees of

the marketing department, the corporation organizes annual actions of planting trees, with a purpose to make people aware of importance of trees to the surrounding natural environment [21]. Whether such actions will be organized, and how effective they will be, depends to a high extent on involvement of the participants and the hosts. Its success depends on the action's manager, mayors of the community, who may be referred to as leaders of the organizational and realizational process, as well as on all individuals involved - employees and the local community.

Sustainable personnel and managers in sustainable enterprise. According to the author, who was already quoted here, A. Pabian, “human resources play the most significant role in the process of transforming enterprises into sustainable organizations. Its most valuable part is sustainable personnel (...)” [22].

As D. Majewski suggests, “sustainable employees are characterized with realization of the enterprise's aims, preserverance and performance of their duties in an ecologically and socially responsible manner. Sustainable workers exploit materials and equipment economically, they take care of their workplace and coworkers. Those employees are highly creative and willing to improve their workplaces. They follow occupational health and safety regulations and ethical codes of their organizations implicitly. Care for company's assets, economical exploitation of materials and high culture in the workplace are not dictated by the fact of being afraid of their supervisors or the desire for economic benefits” [23].

Effective implementation of social principles of sustainable development depends on HR management. Solutions applied in all spheres, from recruitment and selection of persons proper for each position, through trainings, earnings and evaluation of employees' results, exert considerable influence on realization of the sustainable development concept in a particular company.

B. Mazur emphasizes that “areas in which HR was or could be making a contribution to support human capital for the sustainability of the companies include: leadership development, training and development, transformations management, collaboration and teamwork, talent management, diversity and multiculturalism, ethics and governance, creating and inculcating values, health and safety, workforce engagement” [24].

Sustainable development requires understanding, activity and involvement of all employees. Attitudes and behaviors of employees ought to consider ecological, social and cultural sensibility, especially when the global enterprises are the case.

According to A. Pabian, “highly qualified personnel, understanding and employing the principles of sustainable development in their work, which is also reflected in company's strategies and development, may be called sustainable. It currently is the most desired type of

workers, whose task is to contribute not only in achievement of economic objectives, but also in longterm balancing of the needs expressed by different generations, thus preventing serious ecological and social problems in future” [25].

Future managers employed in sustainable enterprises will need to face plenty of serious and complicated requirements and challenges. Interdisciplinary knowledge, energy, ability to cooperate with workers, effective management of a team, which can frequently be multicultural, leadership skills and the ability to convince the employees to new visions and involvement in their realization - these are all the indispensable features. The future managers will be first of all expected to act effectively.

To play the role of a leader, a manager in a sustainable enterprise should have plenty of positive features, which will provide him with charisma. The following features are significant: “strong personality that motivates for achievements, intuition and a skill of noticing and solving problems in an innovative and creative manner, as well as taking care for the subjects and providing them with conditions for personal development” [25]. As suggested by T. Kupczyk, “focus on the clients, openness to new concepts and organizational transformations, readiness for lifelong learning, initiative and flexibility, creativity and innovativeness, cognitive control over a situation, striving for mastery, focus on success supported by strength of will, the courage of abandoning successful ideas and seeking for new solutions, these aspects are all of special importance” [27].

In case of a sustainable enterprise there is a need to point a significant role played by diversity management. Proper exploitation of personnel predispositions, first of all the policy of equal chances in relation to all employees, support to the process of filling gaps in the workers' competences, among others through mutual learning. Furthermore, it is also important for each manager to improve their qualifications constantly, therefore provide a good pattern to be followed by their coworkers [28].

A future enterprise poses a subject of numerous analyses and studies. It is an enterprise, where management of tomorrow will be taking place, where a leading role will be played by the sustainable development concept, social responsibility and activity, close cooperation between the company and its surroundings, and development of the sustainable personnel, involved in innovative actions of the enterprise and creation of its positive image.

HR management, including its improvement and development, is of special importance in a sustainable enterprise. In present turbulent surroundings, the ability to learn constitutes a basic manner of adjusting to transformations. Therefore, sustainable management, based on knowledge and involvement of leaders-managers, activity and responsibility of employees, seems absolutely

necessary. Effective communication and cooperation both inside and outside the enterprise, and promotion of new solutions based on clear principles and values, are the factors indispensable to implement and develop the sustainable development concept.

There is a need to emphasize that “knowledge about principles of sustainable development and developmental interdependence of the world should be generated and published systematically (through studies, education, media), especially among political and business policymakers. These processes need to undergo socialization and democratization, so various rationalities of fields of human actions can be coordinated” [29].

Summing up, it is worth stressing that these are first of all the managers and workers, who will influence the scope and pace of development of the sustainable enterprises. The concept of sustainable development requires a different view on the organization, competences of the managers and their subordinates and the manner of developing relationships with the environments and clients.

As suggested by plenty of authors, the key to problems of sustainable development, especially those of social nature, lays in human awareness. People just need to adjust to new challenges, therefore recognizing that some previous beliefs need to be changed. A basic and the same time crucial condition of realization of the sustainable development of economy is active participation of human capital in development of future enterprises. The capital that will be well-educated, experienced in actions realized locally and globally, and aware of threats and opportunities connected with sustainable development.

1. Mikula B., Pietruszka-Ortyl A., Potocki A. (2002), *Zarządzanie przedsiębiorstwem w XXI wieku : Wybrane koncepcje i metody*, Difin. – Warszawa, p. 7.

2. Sztumski W. (2006), *Our Common Future*, w: Report from the UN World Commission on Environment and Development (WCED), 1987[w:], *The idea of sustainable development and possibility of its Realization : Problemy Ekorozwoju*, vol. 1 No. 2, p. 73. – Access mode: <http://ecodevelopment.pollub.pl/no2/h.pdf>.

3. Szadziwska A., *Przejawy realizacji koncepcji rozwoju zrównoważonego w działalności przedsiębiorstw : Uniwersytet Gdański*, p. 158. – Access mode: http://jmf.wzr.pl/pim/2010_4_4_12.pdf.

4. Pabian A., *Sustainable personnel - pracownicy przedsiębiorstwa przyszłości*, – Access mode: http://www.ipiss.com.pl/wp-content/uploads/downloads/2013/12/pabian_a_zz1_5-2011.pdf, p. 9-10.

5. Mazur B. (2014), *Zrównoważone zarządzanie zasobami ludzkimi w teorii i praktyce : Economics and Management*, vol. 1, p. 170.

6. *Wizja zrównoważonego rozwoju dla polskiego biznesu 2050*. – Access mode: http://www.mg.gov.pl/files/upload/8383/MG_WIZJA.pdf, p. 10.

7. Zbiegień-Maciąg L. (1997), Etyka w zarządzaniu, CiM. – Warszawa, p.48 [w:] M. Smolarek, M. Sipa, Corporate Social Responsibility as a chance for social and economic sustainable development of small businesses, ZN WSH Zarządzanie 2015 (2), p. 51.
8. Żemigala M. (2007), Społeczna odpowiedzialność przedsiębiorstwa. Budowanie zdrowej, efektywnej organizacji, Wydawnictwo Wolters Kluwer. – Kraków, p.99 [w:] M. Smolarek, M. Sipa, Corporate Social Responsibility as a chance for social and economic sustainable development of small businesses : ZN WSH Zarządzanie 2015 (2), p. 51.
9. Bernatt M. (2009), Społeczna odpowiedzialność biznesu. Wymiar konstytucyjny i międzynarodowy, Wydawnictwo Naukowe WZ Uniwersytetu Warszawskiego. – Warszawa, p.30 [w:] M. Smolarek, M. Sipa, Corporate Social Responsibility as a chance for social and economic sustainable development of small businesses : ZN WSH Zarządzanie 2015 (2), p. 52.
10. Kubik K. (2005), Menedżer w przedsiębiorstwie przyszłości : Dom Organizatora. – Toruń, p. 23.
11. Pabian A. (2015), Sustainable personnel - pracownicy przedsiębiorstwa przyszłości. – Access mode: http://www.ipiss.com.pl/wp-content/uploads/downloads/2013/12/pabian_a_zzl_5-2011.pdf, p. 11.
12. Mowforth M., Munt I. (1998), Tourism and Sustainability : New Tourism in The Third World. – London, p. 105-110.
13. Kazimierzczak M. (2010), Rola audytu w kształtowaniu społecznie odpowiedzialnych organizacji : Ekonomia i Środowisko, No.2 (38), p.215-228 [w:] M. Smolarek, M. Sipa, Corporate Social Responsibility as a chance for social and economic sustainable development of small businesses : ZN WSH Zarządzanie 2015 (2), p. 52.
14. Chodyński A. (2009), Sustainable business – przydatność koncepcji w sytuacji kryzysu [w:] A. Chodyński (red.), Współczesne zagadnienia zarządzania. Przedsiębiorstwo – biznes – region : Oficyna Wydawnicza AFM. – Kraków, p. 221-230 [w:] M. Smolarek, M. Sipa, Corporate Social Responsibility as a chance for social and economic sustainable development of small businesses, ZN WSH Zarządzanie 2015 (2), p. 52.
15. Dobrzański G., Szymańska E., Przedsiębiorstwa zrównoważone w województwie podlaskim - ujęcie modelowe i praktyczne. – Access mode: <http://www.pte.pl/kongres/referaty/Dobrza%20C5%84ski%20Grzegorz,%20Szyma%20C5%84ska%20EI%20C5%BCbieta/Dobrza%20C5%84ski%20Grzegorz,%20Szyma%20C5%84ska%20EI%20C5%BCbieta%20PRZEDSI%20C4%98BIORSTWA%20ZR%20C3%93WNOWA%20C5%BBONE%20W%20WOJEW%20C3%93D%20ZTWIE%20PODLASKIM%20E2%80%93.pdf>, p. 3-4.
16. Kronenberg J. (2010), Partycypacja społeczna [w:] J. Kronenberg, T. Bergier (red.) : Wyzwania zrównoważonego rozwoju w Polsce. – Kraków p. 26.
17. Seroka-Stolka O., Świadomość ekologiczna w przedsiębiorstwach sektora MŚP [w:] B. Kryk(red.) : Trendy i wyzwania zrównoważonego rozwoju, p. 407-410.
18. Kubik K. (2005), Menedżer w przedsiębiorstwie przyszłości : Dom Organizatora. – Toruń, p. 9.
19. Wizja zrównoważonego rozwoju dla polskiego biznesu 2050. – Access mode: http://www.mg.gov.pl/files/upload/8383/MG_WIZJA.pdf, p. 25.
20. Wizja zrównoważonego rozwoju dla polskiego biznesu 2050. – Access mode: http://www.mg.gov.pl/files/upload/8383/MG_WIZJA.pdf, p. 25.
21. http://www.greendot.pl/aktualnosci/z_ostatniej_chwili/news/11_maja___zywiec_zdroj_i_rekopol_podcz_as_wielkiego_swieta_sadzenia_drzew.

22. Pabian A. (2013), Sustainable personnel - pracownicy przedsiębiorstwa przyszłości. – Access mode: http://www.ipiss.com.pl/wpcontent/uploads/downloads/2013/12/pabian_a_zzl_5-2011.pdf, p.9-10.
23. Majewski D., Zrównoważeni pracownicy i ich satysfakcja z pracy, http://kolegia.sgh.waw.pl/pl/KNoP/struktura/KRKL/kwartalnikEEiM/archiwum/Documents/24_Dominik_Majewski_2%2824%292012.pdf, p. 160-161.
24. Mazur B. (2014), Sustainable Human Resource Management in theory and practice : Economics and Management, vol. 1. Białystok University of Technology. – Białystok, p. 164.
25. Pabian A. (2015), Sustainable personnel - pracownicy przedsiębiorstwa przyszłości. – Access mode: http://www.ipiss.com.pl/wpcontent/uploads/downloads/2013/12/pabian_a_zzl_5-2011.pdf, p. 9-10.
26. Szczepanik E. (2004), Przywództwo jako forma sprawnego zarządzania kapitałem ludzkim [w:] Wymiary przywództwa w organizacji XXI wieku : Praca zbiorowa pod red. Waldemara Bański, Wydawnictwo Naukowe Novum. – Płock, p .24.
27. Uwarunkowania sukcesów kadry kierowniczej w gospodarce opartej na wiedzy : red. naukowa Teresa Kupczyk, Difin. – Warszawa, 2009. – p. 141.
28. Bochniarz H. (2013), Przewodnik po zarządzaniu różnorodnością. – Warszawa, p.10-14.
29. Zacher Lech W. (2011), Sustainable development – favorable and unfavorable factors, p. 310 [w:] Conditionings of the development of sustainable knowledge – based economy : Scientific Monograph edited by B. Poskrobko, Białystok School of Economics. – Białystok.

PART 2 SCIENTIFIC AND METHODOLOGICAL ISSUES OF SUSTAINABLE DEVELOPMENT IMPLEMENTATION

2.1 INDICATORS AS MANAGEMENT TOOLS OF SUSTAINABLE DEVELOPMENT ON INDIVIDUAL, INSTITUTIONAL AND REGIONAL LEVELS

The concept of "sustainable development" is becoming increasingly important due occurring changes in natural and climatic conditions, which in turn leads to increased risk not only for business, but also a threat to life. Therefore, management of development of using the tools of forecasting and prevention of possible changes in the balance of the relationship between man and the natural environment is important. Examples of such tools are indicators that suggest reaching of a critical point between the normal state and the beginning of the crisis in any form.

The search for the effective indicators has been held over the years. There is a wide range of up-to-date indicators which, to some extent, fall within global and regional frameworks. The UN classification includes 134 indicators of sustainable development. But even they don't reflect comprehensive interrelations among social, political, economic and environmental issues of sustainable development [2; 4].

National indicators of sustainable development are frequently constructed with the help of the dynamic interactive tools, and are followed by a dialogue between a wide range of the interested counterparties: political figures, experts of engineering documentation, and civilians, in particular.

The aggregated indicators of sustainable development can be considered as alternative ones. The Environmental Sustainability Index (ESI) and Environmental Performance Indices (EPI) refer to such alternative indicators. They are aligned with ecological issues and resource management, but are not still related to the complex sustainability profile. The Genuine Progress Indicator, Adjusted Net Savings and Green GDP can be regarded as very valuable indicators. All of these indicators take a wide range of political, economic, social and environmental issues into account. At the same time, the researches face some problems on a practical level such as data aggregating, data accessibility, methodologies, and selection of the variables.

In one way or another, this article is aimed at clarification of data consisting of different variables for its easier understanding for society and decision-maker persons. In this paper we

pay special attention to the aggregated ecological indicators, and make calculations on the Carbon Footprint as a component of the Ecological Footprint.

1. Aggregated indicators of sustainable development

The UN and World Bank suggested aggregated indicators to be aligned with ecological issues when calculating an economic welfare. Aggregated indicators of sustainable development can be classified as ecological and economic ones (Table 2.1).

Table 2.1

Aggregated Indicators of Sustainable Development [Author’s adaptation based on 4]

Classification	Indicators	Brief description	Area of application
1	2	3	4
Economic	Index of Sustainable Economic Welfare (ISEW)	It is intended for comparing of personal expenditures within a population with an index of income inequality, revealing the difference that might be added or deduced.	Region welfare
	Measure of Economic Welfare (MEW)	It is associated with cost estimation of improving of welfare activity which is deduced of GDP (e.g. spare time necessary for self-education, upbringing children at home, pollution etc.).	Politics, institutions, region
	Genuine Progress Indicator (GPI)	It influences on GDP amount contributing such factors as domestic and social activities and deducing of such factors as crime, pollution, divorcing. It is tightly connected with the Index of Sustainable Economic Welfare.	Region welfare
	Adjusted Net Savings	It represents deductions (amounts referring to natural resource depletion, damage caused by air pollution) from traditional net savings plus adding expenditures on education.	Region welfare
	Environmentally adjusted Net Domestic Product (EDP)	It is used for environmental adjustment of National Accounts.	Politics, region
	Green GDP	It refers to GDP modification for accounting of natural capital losses.	Region
	Index of Human Development	It includes 3 indicators: 1) average life expectancy; 2) educational level; 3) economic development level, which is expressed in per capita GDP.	Politics, institutions, region
	Happy Planet Index	An economic growth doesn’t necessarily contribute to happy life. The Happy Planet Index is calculated by multiplying life satisfaction (defined from contingent evaluation studies) by average life expectancy; the received product is divided by ecological footprint.	Politics, region

Table 2.1 continuation

1	2	3	4
	Genuine Saving	It shows the difference between traditional economic indicators and environmentally adjusted ones.	Politics, institutions, region
Ecological	Environmental Sustainability Index (ESI)	It integrates into one index natural resources consumption, past and current pollution, ecological management and abilities of society to improvement of ecological indicators.	Ecosystem
	Environmental Performance Index (EPI)	It integrates into one index indicators concerning resource depletion, environmental pollution, impact on the environment, and energy efficiency which are directed at measurement of policy efficiency.	Politics, energy systems
	Maximum Sustainable Yield (MSY&IPAT)	It deals with maximum amount of resource extraction without resource depletion from one harvesting to another	Ecosystem
	Living Planet Index	It reflects the living trends within 5000 populations, 1680 species of mammals, birds, reptiles, amphibians and fish around the world.	Monitoring of biological diversity of the planet
	Ecological Footprint (EF)	It includes total area of productive land resources and water ecosystems necessary for resource production and waste assimilation.	Individuals, institutions, region

The economic indicators are intended to determine monetary equivalent of sustainability. The economic indicators of the net domestic product are usually deduced including natural resources depletion and monetary evaluation of ecological and economic detriment caused by environmental pollution.

Nowadays, the economists use such sustainability measures as ecosystems assessment, conventional assessments, and net domestic products. For ecological projects assessment, there can be used standard economic tools [8].

The indices used by the United Nations for analyzing of countries and planet levels can be applicable for region economics and social welfare.

Over the last decades, the different indicators of sustainable development associated with the fluctuations in social and economic systems had been modeled by the different economists. As a result, such indicators as Index of Sustainable Economic Welfare, Index of Human Development, Genuine Saving, Environmentally adjusted Net Domestic Product, Green Gross Domestic Product, Adjusted Net Savings, Genuine Progress Indicator, and Happy Planet Indices appeared.

The ecological indicators of sustainability are widely used for natural systems analysis. They assess sustainability and are carrying capacity. Sustainability means the time needed for provision of the desirable amount of ecosystem goods and services, and also for renovation of the dynamic system equilibrium after shocking impacts. Sustainability refers to a change of ecosystem and doesn't consider it as a static one; it also ensures fixed quantity of the natural resources. Such sustainability indicators include Ecological Footprint, Living Planet Index, Environmental Sustainability Index, and Environmental Performance Indices.

Living Planet Index – is an aggregated index used for the monitoring of the biological diversity of the planet.

The given index reflects the living trends in almost 5000 populations, 1686 species of mammals, birds, reptiles, amphibians and fish around the world. The changes observed in some kinds of populations are average and expressed in relative units. The base of comparison (indicated as 1) refers to the indicator defined in 1970. The received results are published in annual report of the World Wild Fund.

One of the most applicable ecological indices is the Ecological Footprint which is calculated by the international organization Global Footprinting Network and regularly published on their website [3]. It expresses the degree of human impact on the environment and is calculated as the land and sea areas required for resource extraction and waste absorption.

We listed not all of the indicators of sustainable development. Despite it, such indicators are the most applicable and ubiquitously used.

2. The Ecological Footprint. It makes sense to focus on the Ecological Footprint. Its calculations show that our planet experiences abundant pressure from the human beings impact. The biological capacity of the Planet was firstly overshoot in 1980, and since then it has been advanced tremendously.

The concept of the Ecological Footprint was proposed by W. Rees and M.Wackernagel [3]. The Ecological Footprint means that the land area is necessary for the agricultural purposes and energy consumption per capita.

The Ecological Footprint is usually measured in global hectares (gha). The global hectare is normalized for the area-weighted average productivity of biologically productive land of different quality [3]. Biologically productive areas include croplands; they don't include deserts. It means that a country has more global hectares if it possesses a great deal of productive croplands resulting in making a lot of values on the land being occupied by this country.

The Ecological Footprint includes Footprint of Arable Land, Pasture Footprint, Fishing Footprint, Carbon Footprint, Forest Footprint, and Building Footprint.

The Ecological Footprint aggregates the above mentioned footprints. Thus, the first step is to define all of the components of Ecological Footprint, and the second – to calculate overall Ecological Footprint for certain population.

The methodology for Ecological Footprint calculations are developed by Global Footprint Network⁴. This organization makes regular improvements and adjustments on the Ecological Footprint calculation methodology. At the present time, there is no such commonly accepted calculation methodology; all of the methodological approaches are alike in their way. The first attempt to calculate Ecological Footprint for Ukraine was made by A. Kubatko in 2009 [7].

The Ecological Footprint primarily consists of the Carbon Footprint. In 2008, the Carbon Footprint contributed to the Ecological Footprint from as low as 33 % to as high as 65% for the listed in Fig. 2.1 different countries. In Ukraine, it came to 53 %.

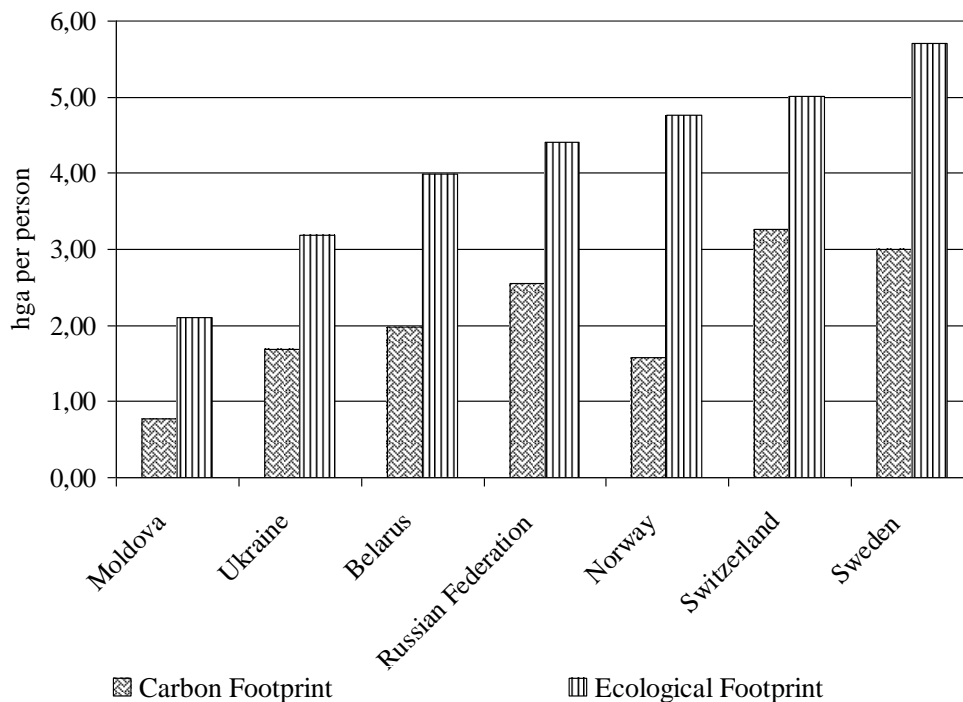


Figure 2.1 – Carbon Component of the Ecological Footprint [3]

The Carbon Footprint in Ukraine is defined to be:

$$EF_c = \frac{P_c}{Y_c} \times EQF \tag{2.1}$$

where

P_c – is annual production of carbon dioxide;

Y_c – carbon sequestration factor – annual rate of carbon sequestration by one world-average-weighted hectare of forest area;

EQF – equivalent factor indicating carbon sequestration by the forest areas based on the annual wood productivity.

For calculate the environmental damage from carbon dioxide we improved Ecological footprint method.

We believe it is enough to know carbon dioxide emissions, forest area and carbon absorption.

Therefore, for Carbon Footprint calculation in Ukraine we will use Equation (2.2):

$$CF = \frac{P_{cu}}{Y_{cu}}, \quad (2.2)$$

where

CF - Carbon Footprint in Ukraine, million ha;

P_{cu} - CO₂ Emission in Ukraine or in region, million tones (National Cadastre of antropogenic emissions from sources and absorption of greenhouse gases absorbers in Ukraine in 1990-2012, 2014);

Y_{cu} - potential of carbon sequestration by forests of Ukraine, (it is calculated as the ratio of Carbon uptake U_u to the forest area S_u), t/ha, Equation (2.3):

$$Y_{cu} = \frac{U_u}{S_u}, \quad (2.3)$$

where

U_u – Carbon uptake in Ukraine, million tons (National Cadastre of antropogenic emissions from sources and absorption of greenhouse gases absorbers in Ukraine in 1990-2012, 2014);

S_u - Forest area in Ukraine, million ha (National Cadastre of antropogenic emissions from sources and absorption of greenhouse gases absorbers in Ukraine in 1990-2012, 2014).

Carbon Footprint is a negative indicator. Opposite to it there is a positive index - Biological capacity, which determines the ability of the environment in the respective territory to heal itself (Calculation methodology for the national footprint accounts, 2010 edition). We believe Biocapacity of absorption (BC) is equal the forest area S in Ukraine, Equation (2.4):

$$BC = S, \quad (2.4)$$

The difference between footprint and biocapacity shows debt or sufficiency of uptake potential, Equation (2.5):

$$NCF = BC - CF, \quad (2.5)$$

where

NCF - debt of uptake potential or Net Carbon Footprint, million ha.

For Carbon Footprint calculations, we used data on annual CO₂ emissions, carbon dioxide sequestration, forest area, taken from the National cadastre of anthropogenic CO₂ emissions and greenhouse gases sequestration in Ukraine during 1990-2011 (Table 2.2).

The Ukrainian Carbon Footprint in 2012 was -116.10 million ha; biological capacity in Ukraine in 2012 was 10.36 million ha; Net Carbon Footprint -105.74 million ha; and Carbon Footprint per person was -2.3 ha.

Table 2.2

Carbon Footprint Calculations

	Equation	1990	2000	2007	2008	2009	2010	2011	2012
S, Forest area [9], mln ha		10,22	10,41	10,56	10,57	10,59	10,6	10,61	10,36
Pc (annual CO ₂ emissions, mln tons) [9]		718,95	293,54	340,5	324,54	274,63	289,71	305,5	302,7
Uu, Carbon sequestration, mln tons [10]		-69,74	-50,84	-53,92	-10,42	-18,27	-37,96	-6,80	-27,00
Yc (carbon sequestration factor, tons per ha)	Yc=Uu/S	-6,84	-4,88	-5,11	-0,99	-1,73	-3,58	-0,64	-2,61
CF, Carbon Footprint, mln ha	CF=Pc/Yc	-105,15	-60,11	-66,69	-329,21	-159,19	-80,90	-476,67	-116,10
BC, Biocapacity	BC = S	10,20	10,41	10,56	10,57	10,59	10,60	10,61	10,36
NCF, Net Carbon Footprint, mln ha	NCF=BC-CF	-94,95	-49,70	-56,13	-318,64	-148,60	-70,30	-466,06	-105,74
Carbon Footprint, ha per person		-1,8	-1,0	-1,2	-6,9	-3,2	-1,5	-10,2	-2,3
P(population, mln) [11]		51,84	49,43	46,65	46,37	46,14	45,96	45,78	45,63

In this way, the Carbon Footprint for Ukraine in 2010 is accounted for:

$$EFc = \frac{Pc}{Yc} \times EQF = 101,1hga$$

$$EFc \text{ per person} = \frac{EFc}{P} = 2,18hga$$

We observed a dynamics of the main component of the Carbon Footprint – annual CO₂ emissions. Evidently, that after 1990 economic downturn caused decrease of CO₂ emissions. What we can say yet is that during the observed period its dynamics remains stable and the

fluctuations don't exceed 13 %. As to the Carbon Footprint, results indicated that there was no stability in its dynamics over the last 20 years in Ukraine (Fig. 2.2). It varied from 52,2 % to 409,4 % compared to 1990 year.

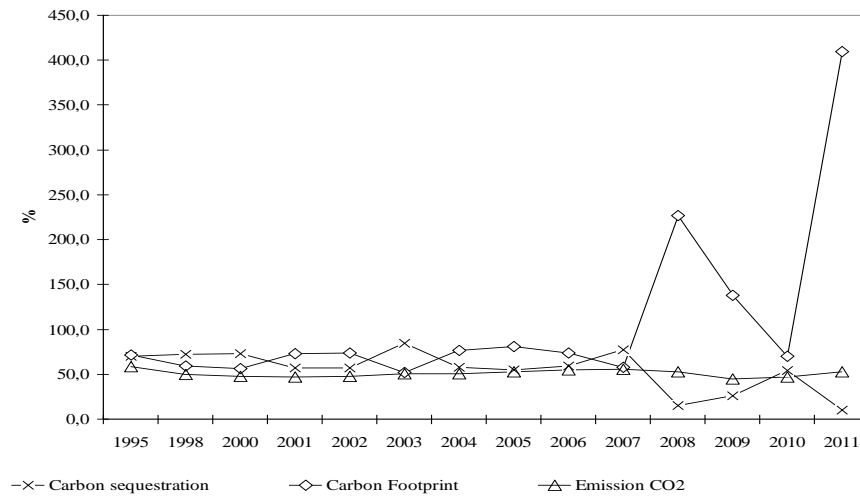


Figure 2.2 – Carbon Footprint, CO₂ Sequestration and CO₂ Emissions in Dynamics: Evidence from Ukraine (expressed in %, compared to 1990 year) [3]

Apparently, that a very central measurement of the Carbon Footprint is CO₂ sequestration. As we can see from the Fig. 2.2, the Carbon Footprint shows inverse dependence on CO₂ sequestration. When the cadastre is designed, CO₂ sequestration is calculated as a difference between CO₂ sequestration by the forest areas and carbon losses during timber harvesting. The final figure shows CO₂ sequestration, measured in millions of tonnes.

Realistically, the Carbon Footprint is not directly related to CO₂ emissions or market mood in the country. This indicator reflects forestry activity in the country and becomes a baseline for environmentally-related resource management.

To confirm these statements, we analyzed the relationship between the Carbon Footprint and carbon-intensity of GDP (Fig. 2.3). As shown in Fig. 2.3, there was economic downturn in the early 1990th resulting in the increase of carbon-intensity of GDP and the decrease of the Carbon Footprint. After 1995, there began a renewable economic growth which changed dramatically: the carbon-intensity of GDP has declined, while the Carbon Footprint has risen up.

After 2000, the growth of GDP has started. At the same time, the carbon-intensity of GDP began to decline. The steady tendency to growth was followed by the decrease of its carbon-intensity. During 1999–2008, carbon-intensity of GDP has reduced from 2,10 to 0,96 tonnes of CO₂ emissions per \$1000. At the same time, the Carbon Footprint moved up and down regardless the movement of the carbon-intensity and GDP.

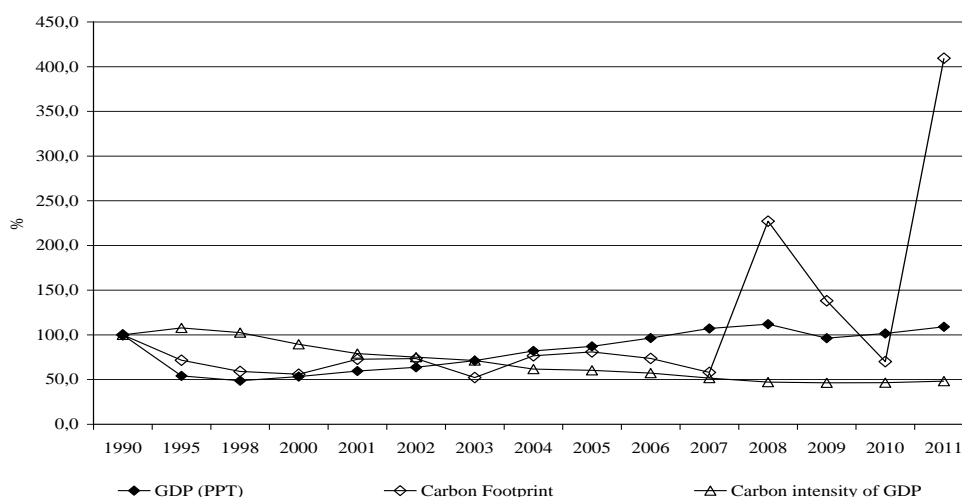


Figure 2.3 – Carbon Footprint and Carbon-Intensity of GDP in Dynamics: Evidence from Ukraine (expressed in %, compared to 1990 year) [3]

After financial crisis started in 2008, GDP has reduced along with CO₂ emissions. At the same time, the carbon-intensity of GDP kept stable during 2008–2010 years, and starting from 2011 year it began to grow slightly along with rapid growth of GDP and CO₂ emissions. But it is not the same case with the Carbon Footprint. The Carbon Footprint was changing severely from 70 % to 409%. The findings indicate that carbon-intensity of GDP grows during economic downturn and reduces during economic growth. We can also draw a conclusion that the decrease of carbon-intensity became one of the important factors of GDP growth distribution regardless Carbon Footprint dynamics in Ukraine. In turn, the dynamics of the Carbon Footprint over the last 20 years cannot be explained by economic collapse. The Carbon Footprint primarily depends on CO₂ sequestration.

Effective indicators are important for the management of sustainable development as a tool for the prediction and prevention of possible changes in the balance of the relationship between man and the natural environment. One such indicator is the carbon footprint. Its main components are the absorption and emission of carbon dioxide. Carbon footprint largely reflects sustainable forestry and focuses on environmental issues and resource management.

The dynamics of the Carbon footprint in Ukraine over the last 20 years cannot be explained only by economic collapse as well as the dynamics of carbon-intensity of GDP cannot be solely related to the Carbon Footprint. The Carbon footprint in Ukraine primarily depends on CO₂ sequestration.

1. Calculation methodology for the national footprint accounts, 2010 edition. – Access mode: <http://www footprintnetwork.org/en/index.php/GFN/page/methodology>.

2. Daly, H. and J. B. Cobb (1989), For the common good: Redirecting the economy toward the community, the environment and a sustainable future, Beacon Press, Boston.
3. Ecological Footprint Atlas 2010. – Access mode: http://www.footprintnetwork.org/en/index.php/GFN/page/ecological_footprint_atlas_2010.
4. Indicators of Sustainable Development: Guidelines and Methodologies / Third Edition. New York, United Nations publication, 2007 Sales No. E.08.II.A.2.
5. Juozas Ruževičius. ECOLOGICAL FOOTPRINT AS AN INDICATOR OF SUSTAINABLE DEVELOPMENT ECONOMICS AND MANAGEMENT: 2010. 15 p. 711-718.
6. Knut H. Alfsen, and Thorvald Moe, “An International Framework for Constructing National Indicators for Policies to Enhance Sustainable Development. Background paper prepared for the UN Expert Group meeting on Indicators of Sustainable Development, 13-15 December 2005, p. 7.
7. Kubatko A.V. (2009) Methodological Approach to Defining of Ecological Footprint to be an Indicator of the Regions Sustainable Development, Mechanism of Economics Regulation, №1, p.194-202.
8. Melnyk L. G., Hens L. (2007), Social and Economic Potential of Sustainable development: Textbook [for students of higher education establishments], Sumy : Publishing House “University Book”, p.1120.
9. Methodologies, publication and data on this indicator are available on the website of the World Bank, – Access mode: <http://go.worldbank.org/3AWKN2ZOY0.44>.
10. National cadaster of anthropogenic CO₂ emissions and greenhouse gases sequestration in Ukraine during 1990-2009. – Access mode: <http://www.neia.gov.ua/nature/control/uk/publish>.
11. State Committee of Statistics, 1998-2012. – Access mode: http://www.ukrstat.gov.ua/operativ/operativ2005/vvp/vvp_ric/vvp_u.htm.
12. Sustainability: A Comprehensive Foundation. Tom Theis, Jonathan Tomkin /<http://cnx.org/content/col11325/1.36>.
13. Wackernagel M., Rees W. (1996), Our Ecological Footprint: Reducing of Human Impact on the Earth, New Society Publishers, Gabriola Island. – Access mode:<http://www.footprintnetwork.org>.

2.2 ECOLOGICAL MANAGEMENT AS A TOOL FOR EFFECTIVE USE OF THE PRINCIPLES FOR SUSTAINABLE DEVELOPMENT

Complex approach to sustainable development is based on close relationship of ecological, economic and social components. Recently, the concept of "green economy", based on this approach, gets more and more public attention as a new vector for sustainable development.

According to the United Nations Programme on Environment and Development (UNEP), the green economy aims to improve human well-being and to ensure social justice, but at the same time significantly reduce the risks to the environment and to prevent its depletion. In other words, the green economy is defined as an economy with a minimum of waste, efficient use of natural resources and the interests of the whole society.

Green economy includes those species and results of operations, which, along with modernization and increase of production efficiency, contribute to improvement of the quality of life and living environment.

At the same time, official documents of different countries have different emphasis: the developed countries put competition and jobs in the first place; the developing – sustainable development, addressing poverty, equity and participation.

A transition to a green economy for the survival and development of humanity involves a system of economic activities, which leads to an increase in the quality of life without compromising future generations to significant environmental risks and resource scarcity. Thus, the concept of sustainable development promotes the formation of the green economy, which becomes the basis for economic development.

It is quite obvious that the development of the green economy requires efficient technologies and a reduction of the number of environmentally "dirty" industries, improving the efficiency of state environmental monitoring, assessment and deployment of environmental monitoring. Therefore, important areas of the green economy strategy and sustainable development in response to the threat of global challenges (climate change, loss of biodiversity, disruption of water balance, depletion of natural resources, environmental pollution) are as follows:

- regional and municipal initiatives to promote the green economy;
- energy saving policy and transition to alternative energy sources;
- sustainable management of natural resources;
- biodiversity conservation;
- social and environmental responsibility of big and small businesses;
- the strengthening of international cooperation in the field of socially responsible development of technologies for sustainable development.

As the green economy and sustainable development have become increasingly widespread as the basis of public policy and organizational strategy, many organizations drew attention to the problem of the practical realization of this concept.

Changing environmental conditions for business, under increasing consumer demands for environmental products, shareholder requirements, regulatory requirements, rising prices for resources, companies confront the following tasks:

- to create a new eco-friendly products and markets;
- to use environmental factors to create a competitive advantage;

- to increase the attractiveness to investors;
- to identify environmental and economic efficiency potentials;
- to comply with environmental laws.

It should be also noted that recently the business world came to the fore issues of social responsibility and professional ethics.

If earlier the company's position in the market was determined only by efficiency of its business, today these positions are affected by the attitude of the enterprise to the problems of environmental pollution, efficiency of solving social problems (both inside and outside the enterprise) [2; 5; 9].

Commitment to environmental and social values becomes a part of the company's image and effective marketing ploy. Enterprises begin to realize all the competitive advantages of "green industries", and are anxious to focus on the environmental aspects of their activities, products and services. This approach is currently an important factor in the business competitiveness.

If formerly it was noted that the use of an environmental management system was mainly a consequence of changes in the external environment of the company, which was primarily manifested in the new environmental protection legislation, at present, we must tell about the benefits that are associated with the usage of environmental management systems at the enterprise.

Environmental management is a concept of environmentally sound management of modern production that achieves a balance between environmental and economic performance.

Its basic principles and objectives are as follows:

- timeliness of problem resolution;
- responsibility for the environmental consequences resulting from the management decision-making at all levels;
- establishment of environmentally sound production processes to ensure environmental compatibility of all production enterprises;
- prevention of the negative human impact on the environment caused by production, use, or disposal of products;
- transformation of environmental constraints into opportunities for industrial activity growth (waste management, application of low-waste technologies, etc.);
- products updates based on social responsibility to consumers;

- creation of green public image (selection of suppliers based on their relationship to the environment, promotion of environmental awareness and consumer awareness of employees);
- products updates based on social responsibility to consumers and creation of attractive public image;
- promotion of environmental initiatives that would exempt additional financial resources due to lower costs (reduction of energy consumption, natural resources defence, waste management, recycling, and reduced penalty rates for environmental damage) and income growth (through the sale of improved or more expensive "green "goods and the creation of fundamentally new products) [4; 6].

The main advantages, of the environmental management system implementation can be primarily attributed to benefits to be achieved by minimizing environmental risks from emissions and resource consumption at all economically viable stages of production. For example, for many years an enterprise, closely related to environmental issues, implement various industrial waste reduction projects. Such businesses tend to get away with problems of the astronomically rising waste disposal costs using environmentally friendly integrated technologies, replacing harmful materials by environmentally friendly, reintroducing the waste to the production cycle in its own business premises or providing waste to other businesses for further use, performing other activities to eliminate the garbage formation, and reducing waste.

Thus, they can achieve two goals: first, to minimise industrial waste, and secondly, there are possible cost savings in the following areas:

- cost reduction due to lower energy and water consumption;
- cost reduction through economical use of materials and their replacement by environmentally friendly ones;
- cost reduction due to the introduction of the waste-free methods of production or achieved through waste reduction and recycling;
- cost reduction in logistics;
- at the expense of other cost reduction opportunities, such as the use of government programs to support the environment or through environmental cooperation between enterprises.

Very often businesses are facing challenges in developing and implementing management systems, among which the typical ones are as follows:

- Improper planning of the development and implementation of environmental management: time and resources allocated to work on the implementation of an environmental management system are over- or underestimated. This is usually due to lack of experienced staff

responsible for such work planning. Meanwhile, the development period of an environmental management system depends on the number of employees of the organization, complexity of production, availability of branches and the like, as well as the involvement of the consulting companies specializing in the development and implementation of management systems, staff training and certification, and have wide experience in the field of the enterprise activity.

Development of environmental management system can last from several months to several years.

- Low staff involvement in the development and implementation of environmental management – the most common problem that companies face implementing a management system for the first time and doing it themselves. As a result, the developed management system does not correspond to the real situation in the company, its activities, and the existing control system.

- Low involvement of the company management to the development and implementation of environmental management is the problem that occurs most frequently. It lies in the fact that such important aspects as development period and resources are not further involved in the implementation of an environmental management system right up to the approval of all developed documents.

- Thus, violated is the basic principle of the management systems – a management leadership. This results in the fact that in most cases the approval documentation, which among other things includes environmental policy and objectives, the environmental aspects of an organization are the basis of the environmental management system the company management disagrees with. Which in turn, leads to the necessity of implementing the environmental management system, and, therefore, spending extra money and time. [3; 8].

One should consider different approaches to the formation of environmental strategy formation. Weak and strong sustainability are two opposite approaches to the sustainability strategy. In the first approach, the economic development is of fundamental importance; in the second – the environmental aspect. In practice, a combination of both strategies is widely used. So, the economy suggests the need to reduce the negative impact on the environment, but it relies on such technologies as, for example, the use of filters in power station.

It is difficult to strengthen the position of a strong sustainable development, because environmental damage costs do not play any role in pricing. Only production costs included in the price are recorded. Due to this, the cost of many products does not show their true price and production costs.

Regardless of the position in the spectrum of strong / weak sustainable development, each strategy should satisfy the following principles:

1. Everyone has equal chance within one generation.
2. There should be no discrimination between different generations.
3. Unity and integration (No preference is given to one of the aspects of sustainable development - social, environmental, or economic). At present, there is a search of integrating solutions of the problem which involve all of these elements.
4. Combination of global and local approach.
5. Participation and responsibility: the involvement of all those who should be involved and participate in the process.
6. Long-term preventive orientation: reducing adverse impacts of economic activity.

Development of environmental strategy implies specific knowledge of the interactions between its constituent elements. Environmental strategy must be developed to balance the elements.

Central idea of the environmental strategy is to permanently increase and optimize the use of common grounds between economy and ecology. For all components of environmental strategy, there is a set of rules of minimum environmental standards for the long-term existence of the company. Minimum requirements of the competitive strategy are formed from the relevant market needs and consumer preferences within their limits. There were formed minimum standards regarding the level of the maximum and minimum cost differentiation, where changes in one component could not be recovered without a strong change in the other components.

Thus, the field of action of the environmental strategy lies between the bounds of the minimum requirements for each of its components and the greatest possible distance from them. The environmental strategy forms the potential for long-term integration of both environmental and competitive strategy aspects.

Environmental strategy must be developed to meet the requirements of all stakeholders, with staff participation at all levels of management.

The main objectives and evaluation criteria for their achievement in the environmental management are associated with the processes of continuous improvement. Continual improvement should be achieved in all possible environmentally significant aspects of business.

Lean manufacturing is a concept of continuous improvements and, although it concerns the improvement of the quality of goods and services, the improvements go far beyond that. Unfortunately, the complex problems associated with the use of the principles of lean manufacturing to build an environmental management system in the enterprise as well as the

development and implementation of the environmental controlling as a tool contributing to the effectiveness of this process rest on insufficient economic research in Ukraine.

This concept aims to improve all aspects of the organization - from the processes and production relations associated with receipt of materials and components from suppliers to their processing, the ways of interaction of distribution systems with the final customers.

The philosophy of lean production contains impactable control and management techniques that allows creation of a new organizational culture and its support with a highly efficient operation toolkit. Using these tools in an attempt to achieve continuous improvement, the organization may gain valuable skills that give the organization the opportunity not only to produce quality products, but also to achieve strategic differentiation.

In accordance with the concept of lean production, all activities of the company may be classified into the operations and processes that add value to products and into those that do not. Therefore, anything that does not add value for the consumer in terms of lean production is classified as a loss and should be eliminated.

Effectiveness of lean production concepts in the implementation of the environmental management system is determined by the capability of effective control of the conformity to the organization environmental requirements and the ability to maintain timely identification of inconsistencies and their correction, flexibility to respond to system variations.

Otherwise, the system of environmental management, even in the presence of certain environmental policy, planning and implementation, is unable to guarantee the reduction of the organization's impact on the environment. Almost any manufacturing process should be based on quality standards. Connection between them and lean production is defined as the complementary and supporting synergy. In this case, environmental control considers all deviations from standards. But the essential need for the process standardization impose on it the study of deviations and reasons that cause them.

Lean is a continuous improvement methodology focused on any process improvement through the elimination of waste. Lean production is a system of interrelated and interdependent subsystems of enterprise management, designed to meet the needs of both internal and external customers on the basis of controlling and knowledge management. It is assumed that the employees should be involved in work on understanding and eliminating bottlenecks.

All the above makes the concept a logical tool for implementation of environmentally oriented goals and strategies in the production process at the plant.

We are talking about the formation using lean production philosophy of belief systems in an organization that is constantly focused on finding better, more environmentally friendly

procedures and practices as well as the formation of internal systems that support and reward the permanent search for even small improvements in the way of greening businesses.

The implementation of effective management techniques (taking into account environmental objectives at the enterprise) involves the creation of information and technical support to the corporate information system. From this perspective, the organization of internal service enterprises controlling environmental indicator is configured innovation management, how to guide prepared technological modernization and greening, as well as to the effective use of its results. Connect features innovative environmental management tools and concepts of lean production system makes use of modern environmental control, which is a mechanism for information and analysis of the management information system, necessary for on-line solving problems of any size.

The concept of controlling, used mainly in the economic literature, includes two aspects:

1. Controlling as a process: control of the methods for integration of recording, analysing, planning, regulating into a single system for acquisition, processing and integration of information, and acting in regards to management decision-making;

2. Controlling as a system of economic management of the company aimed at achievement of both current (operational controlling) and global (strategic controlling) business objectives.

The main purpose of controlling is a system-integrated information, analytical, instrumental and methodological support of management to ensure long-term existence and development of the company.

By definition (given by prof. S. V. Danilochkina) controlling is the process control system to achieve the ultimate objectives and results of the company [1]. Implementation of the objectives of control is provided by:

- setting strategic and operational (tactical) objectives to the enterprise;
- controlling mechanisms to ensure coordinated work of an enterprise towards its goals;
- alternatives in research for achieving the objectives and rationales choosing the best option;
- grouping and summarizing the costs and benefits in various types of analysis;
- coordination of structural units;
- analysis of the enterprise and the rationale for the implementation of corrective actions;
- assessment of the effectiveness and feasibility of investment projects and tactical management decisions.

Methodology and tools of controlling allow modernization of the organizational structure of the enterprise and its dataware so that the basic problems of its development predetermining stable success, could be solved not only in the present but also in the future.

This is especially important in the development and implementation of an integrated environmental management system, due to the fact that this active innovation that meets new environmentally oriented goals is the foundation of effective enterprise development at the moment.

Thus, the main function of the environment controlling is to provide methodological and informational support of the preparation of decision-making activities to implement the principles of environmental management for various enterprise management levels based on the analysis and prediction of technical and economic parameters. This involves the use of permanent forecasting, monitoring, analyzing and correcting activity units of the company, incorporating the process of implementing the principles of environmental management.

One of the conditions for the effective use of the concept of continuous improvement and the instruments of the environmental controlling is that the company initiates such processes as:

- to ensure transparency in the volume and structure of the enterprise resources use;
- assessing the chances and risks with respect to the imposition of higher environmental standards;
- assessing the direct and indirect impacts on the environment of the company;
- formulation of sustainability requirements for materials and processes implemented in partner companies throughout the value chain;
- development of environmentally friendly products and assessing the readiness of customers to pay for them;
- development of business plans to include them in such goals as reduction of water consumption for industrial purposes or reduction of emissions;

The implementation of these processes includes the following:

- creation and update of the knowledge base containing information on developments of the possibilities to implement a new ecologically pure enterprise strategy;
- development of methodological framework for the analysis and evaluation of the strategic environmental assessment objectives of the enterprise through innovative environmental solutions, their impact on the activities of the company, and the creation of the effective management system for the implementation of the environmental management process in the enterprise;

- development of systems of environmental indicators to measure eco-innovation potential for connections between environmental and economic objectives of the company's strategy to evaluate effectiveness;

- development of management reporting forms in the process of implementation of environmental objectives and strategy for the process of decision-making in production;

- coordination of all business units involved in the implementation of environmental management systems.

Environmental input parameters for controlling include description of the objectives of the project integration objectives of environmental management at all levels of enterprise management plans on timing, project budget, planned interim results.

Environmental controlling helps to optimize a business management model by specific environmental objectives, also it allows to observe the principle of goal-setting, the corresponding principle of authority management, as well as the corresponding principle forms and methods of motivation and objectives, both through direct administrating or through economic and indicative management.

Considering all of the above, we can that the main tool for sustainable development is green economy that is a system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being in the long term (while not exposing future generations to significant environmental risks and ecological scarcities).

The concept of "green economy" provides a comprehensive and balanced agreement linking together three components of sustainable development (economic, social and environmental). In this model we call them “the green economy complements”, but they does not alter the model of sustainable development. The last retains its value, but takes on a longer-term goal setting.

Importance of the transition to a green economy is defined by the ability to solve the following problems:

- technological modernization, leading to a reduction in the negative environmental pollution and depletion of natural resources;

- improvement of competitiveness of the economy by reducing dependence on carbon materials and its share in the cost of the final product;

- green (environmental) innovation, promoting technological renovation of a number of industries;

- creation of green jobs;
- development of market mechanisms, strengthening the role of environmental (green) and tax incentives;
- support of the development of knowledge and environmental education;
- ensurance of environmental sustainability in general, etc.

One possible method to improve management of environment protection is introduction of enterprise environmental management systems [7]. Their implementation will enable the company to reduce pollution, to minimize the probability of accidents, to reduce overhead costs, strengthen the company's position in the market, and to enhance the efficiency of marketing products.

In accordance with the concept of lean manufacturing, all activities of the company can be classified into operations and processes, and not adding value-adding products.

When using the concept of lean manufacturing principles for effective implementation of "green economy" and sustainable development of an environmental management system in the enterprise, a system of interrelated and interdependent subsystems of enterprise management has to be designed to meet the needs of both internal and external customers on the basis of environmental controlling and knowledge management. Involvement of all employees in work on understanding and addressing the environmental bottlenecks is assumed.

The main function of environmental controlling is to provide methodological and information support of decision making preparation for action on implementation of the principles of environmental management for various enterprise management levels (based on the analysis and prediction of technical and economic parameters). It can serve as an effective tool of implementing the concept of lean production under environmental management system.

1. Anankina E. A., Danilochkina S. V. (2003) Controlling as a Management Tool. Moscow: UNITY.
2. Babina Y. V., Varfolomeeva E. A. (2002) Environmental Management: Textbook. Moscow: "Perspective" Publishing House.
3. Belmane I., Dalhammar K. (2000) Environmental Management Systems : From Theory to Practice. University of Lund, Sweden.
4. Daiman S. Y. (2004) Environmental Management System for Practitioners. – M. : Publishing House of MUCTR. Mendeleev.
5. Durkin M., Mont O., Plepis A. (2002) Environmental Management and Cleaner Production. Sweden, Lund MIIEE.
6. Maslennikov I. S., Kuznetsov L. M. Pshonin V. N. (2005) Environmental Management Manual. St. Petersburg State Engineering and Economic University. - St. Petersburg.

7. Shevchuk V. J., Satalkin Y. M., Bilyavsky G. O. (2004) *Ekologichne Upravlinnya* : Pidruchnik. - K. : Lybid.
8. Trifonov T. A., Selivanov N. V., Ilyin M. E. (2003) *Environmental Management: Textbook*. Vladimir State University. - Vladimir.
9. Yanovska E. S., Kuzovenko V. A., Dyachenko N. M. (2006) *Bases of Environmental Management and Audit: Navchalnyi posibnyk* . - K.: "Kyivsky universytet".

2.3 CLUSTER APPROACH TO EVALUATION OF THE COMPETITIVENESS OF THE REGIONS BASED ON THE CONCEPT OF SUSTAINABLE DEVELOPMENT

Modern concepts of cross-border cooperation between regions require a substantial revision of outdated ideas of the country administrative structure, the role and importance of border areas within their inherent problems. State policy aimed at strengthening the state borders has caused a lot of problems associated with the migration of population, goods and capital. All this contributes to the development of regional disparities and obtainment of the territory depression symptoms.

At the same time the development level of these frontier territories depends largely on the security and integrity of the state.

The solution of the problem of the increasing efficiency of cross-border regional economy involves the development of expanded and theoretically supported concept. Its central element should fulfill a regional development paradigm which is based on the balance between the economic interests of the center and the border regions.

One of the important factors that determine regional competitive advantages and its facilities is the presence of clusters. The cluster itself creates the critical mass which is necessary for competitive success in certain areas and as a consequence in their corresponding regions.

Efficient clusters` activities and their advantages compared to traditional structures, have brought to significant changes in economic policy in many countries.

Clusters are increasingly being regarded as an object of economic policy of the new model, named "cluster", the main purpose of which is the increase of competitiveness of a certain area or the whole country. Cluster policy is a mixed form of multiple areas related to business development and regional development. It combines industrial policy, regional policy, support small business policy, and policies to attract foreign and domestic investments, innovations in science and technology, education and others. Implementation of cluster policy aims to establish a set of measures, primarily regulatory measures, to remove barriers appearing during exchange of knowledge and practices that prevent the establishment of interaction and interdependence

between different cluster members. Authorities play an important role in the clustering process. State policy is needed to improve existing clusters or to develop cluster in its initial stage. The role of the government in the development of clusters consists in creating the infrastructure for the cluster activities and the direct impact on competitiveness factors. There are five most common types of cluster policies:

1) mediation policy aimed at creation of conditions for constructive dialogue within the cluster and to strengthen cooperation among its members;

2) demand-side policy is the formation of consumer benefits in the region and supports the development of related sectors of the economy and government orders;

3) educational policy which purpose is the formation of the necessary competencies in the region;

4) a policy for promotion of foreign relations, such as elimination of trade barriers, intellectual property rights protection, implementation of infrastructure and investment projects;

5) a policy for creation of favorable structural conditions: macroeconomic, institutional and etc.

To improve the competitiveness of the border region, it is important to determine the potential of its cluster. To solve this problem, it is necessary to analyze the competitive stability of the enterprises in the region.

That is, a “rooting process” of the subjects, which are managed in the regional environment, their ability to maintain their own competitiveness in a long-term period using the capacity of this environment.

Analysis of the competitive stability of individual enterprises is supplemented by an analysis of sustainable competitive advantage of the region, where a group of companies produces technologically homogeneous, or almost homogeneous, products.

The analysis of sustainable competitive advantage is carried out at three stages:

– quantitative analysis of competitive stability to determine the market position of industries in the region;

– qualitative analysis of availability and composition of the resource-based requirements to ensure the competitiveness of enterprises in certain regional sectors/branches, that is, the competitive conditions of stability;

– identification of economic sectors where it is possible to achieve competitive advantages of the enterprises of the region: that is, the analysis of potential clusters.

Indicators that reflect the industry competitive stability in the border region and its cluster potential can be the coefficient of the localization of production in the region, the ratio per capita and the coefficient of regional specialization in certain economic sector [3, p. 5].

If index is greater than one, these industry sectors function as sectors of market specialization where clusters already exist or their establishment is possible. While forming clusters and selecting those with the highest priority, it is necessary to assess the dynamics of the corresponding coefficients because the increase of indicators suggests the possibility of further cluster growth prospects and the decrease – the need to expand the range of products, or modernization. Ranking the industry sectors by these indicators, one can determine the priorities the industry sector analysis taken to the next level. Quantitative analysis of enterprises and industry sectors is complemented by qualitative analysis.

The result of this step is to determine the presence and consistency of the resource-based requirements to ensure competitiveness in certain economic sectors. These results are generated by analyzing a set of conditions which individually and all together constitute the basis of competitive stability:

- production factors which are necessary to maintain competitiveness in this industry;
- domestic demand for industrial goods;
- competitiveness of suppliers and other related industries in the region;
- factors that motivate the development of organizational effective strategies and enterprise management.

Factors of production. *Qualitative assessment of the availability and accessibility of natural resources, labor, technologies and other factors of production (available / unavailable).*

Domestic demand for industrial goods is estimated using quantitative and qualitative indicators. Quantitative indicators are:

- share of industrial output which is sold within the region, country or abroad, and their dynamics over the past 3–5 years;
- coefficient of interregional marketability (calculated as the ratio of the export volume of these products in the region to the volume of production);
- similar products' proportion from manufacturers of other regions which is sold in this region, including imports within total goods trade.

Among quality indicators, it is necessary to assess the level of customers demand for the range, innovation and quality of this product in the region. Analysis of quantitative and

qualitative indicators, integrated into domestic demand assessment, is conducted in the context of being interested / not interested in.

Competitiveness of suppliers. Other related industries in the border region.

Evaluation of this condition is very important due to conclusions of a cluster and its competitive sustainability. The analysis consists of quantitative and qualitative indicators.

Quantitative measures are formed by the relevant proportion of industrial suppliers located within the region, country and abroad.

Required quality assessment:

- existence/presence and activity level of professional non-profit organizations in the industry (associations, unions) as well as other non-profit organizations;
- existence/presence and activity level of the research organizations associated with this industry sector;
- existence/presence and the level of academic institutions associated with this industry sector;
- concern and public institutions` assistance in the industry sector.

Analysis of quantitative and qualitative indicators integrated into assessment of related and supporting industries is an analysis of “presence/absence”.

Factors that motivate the development of organization’s effective strategies and management of enterprises, including the competition in the domestic market, are evaluated with the help of qualitative data (presence/absence). Obtained estimates allow the formation of three groups of industry sectors:

- industry sector with high potential level of cluster existence where information support and minimum control influence are enough;
- industry sector which has a possibility to create clusters within a long-term management influences;
- industry sector where the creation of clusters requires considerable expense, incomparable with the expected effect.

The next step (verification clusters) is suitable for the first two groups.

The results of the third stage of the analysis (to determine the nature of management influences on the competitiveness of the region) are formed on the basis of cluster analysis of the region. This analysis can be carried out in different directions: institutional organization of clusters: internal motivation to initiate and support clusters: relative competitiveness of the participants, and strategic potential of clusters.

Institutional organization of clusters. In the cluster analysis groups, there are clusters characterized by the following features: structuring (presence of organizations); stability (permanent staff members), possibility of statistical monitoring (for the formation of the state and municipal statistics).

Internal motivation to initiate and support clusters. For cluster formation, it is also necessary to take into account the motivation of participants. Here are the following reasons: the production of similar products; homogeneity of the main buyers, particularly in large public institutions, ensuring the mobility and capital within a cluster, etc.

Competitive strength of cluster members. Factor that determines the competitive strength of the cluster can be competitive strength of its individual participants. Here are the following models: a cluster with approximately the same competitive strength of participants; a cluster where the competitive strength of the central participants far exceeds other competitive strength; a cluster where the competitive strength of the peripheral members far exceeds that of the central members; a cluster which consists of competitively weak participants.

Competitive force of clusters. The criteria for evaluation of strategic potential of clusters can be used within the following parameters: the growth rate of the industrial production, which employs senior cluster enterprises, in comparison with the growth rate of the economy as a whole (industrial growth); the growth rate of cluster production in comparison with the growth rate of the industry sector in general (cluster growth); product share of the industry cluster in a gross regional product.

These evaluation criteria allow to identify eight types of clusters and to determine their strategic importance for a particular region. According to these types and the level of strategic importance, there is selected a complex of management actions to support or initiate restructuring clusters.

Support technologies, initiation, scaling and restructuring of the clusters are developed in accordance with clusters` specialization. Management actions are the result of increased individual competitive sustainability of enterprises (that compose a cluster) and the competitive force of clusters within their respective corresponding regions.

Economic clusters are the basis of the region's competitiveness in general and of the cross-border region with its specific features in particular. Border regions clusters are a part of a single international cluster.

World experience shows that the formation of clusters results in significant increase in competitiveness of the regional economy. This occurs due to the following factors:

I. Reduction of transaction costs by:

- effective implementation of long-term contracts between industrial enterprises, finance and credit institutions, trade organizations, research and innovative organizations, countries;
- centralization of companies' common functions within cluster members;
- implementation of a common cluster informative-analytical system which accelerates the exchange of information between the members both in the vertical and horizontal ways.

II. Ability to provide competitive advantages:

- quality and sale price of products;
- innovation potential, the sufficiency of production and marketing facilities;
- a long-term business strategy;
- optimization of the external and internal cluster communications.

III. Long-term potential and mutually beneficial business relations:

- development of the mutual supply within the cluster based on the principles of trust;
- mutual sales network;
- an intensive exchange of information, financial, human resources, innovative resources;
- willingness of risk reducing operation by reducing the profitability of enterprises that are part of the cluster;
- priorities in intra-cluster planning, goals and objectives;
- development of cross-shareholdings within the cluster.

IV. Profit which is based on the theory of production and financial management:

- synergistic effect is based on the fact that the overall result exceeds the sum of the individual components of the effects;
- reduction of supply costs and sales products;
- economies of scale;
- more efficient use of all resources;
- risk reduction diversification.

The economic structure of the Odessa region (border region) and available potential suggest the conclusion of forming cluster structures primarily in these sectors.

1. *Transport and logistics complex.* An effective use of region's transit potential, creation of favorable conditions for all transport are in need for close integration of all parts of the transport and distribution chain, integrated infrastructure development of different modes of transport, unified informational provision system for goods and commodity turnover. Effective

functioning of such system in modern conditions is possible only on the basis of the cluster model.

2. *Agro-industrial complex*. This is a level of development of agriculture and agro-processing industry.

3. *Engineering*. The region has efficiently operated enterprises, scientific and educational institutions.

4. *Recreation area*. Due to favorable climate conditions, use of natural resources, presence of sanatorium and resort facilities with the appropriate infrastructure, a large number of cultural heritage objects, an extensive network of culture and art institutions, Odessa region is one of the most promising recreational and tourist regions of Ukraine.

5. *Industry of building materials*. Significant volumes of construction output create a constant demand for building materials. In addition, the region has the necessary resource base for their production and companies which produce, or can produce, necessary equipment. Recently, the growth rate in the building material industry was the highest compared to other industries.

6. *High technology sector*. Some areas still have not received a significant development in our region. At the same time the available scientific and technical potential and intellectual level of the population allows to form effective clusters with an appropriate regional policy. World experience shows that high-tech clusters, in many cases, are built around universities.

A full-scale study of the economy of Odessa region requires a lot of time and resources. For instance, in the cluster studies program of Denmark`s economy, there participated analysts from 513 companies, research organizations, government agencies, which had been divided into 35 working groups that specialized in specific sectors. [4, p. 155].

The weakness of production links between enterprises prevent formation of competitive clusters in engineering in Odessa region. Therefore, in this industry sector, there are only pre-clusters (agglomerates). This is partly a consequence of the past, when the relevant links were formed primarily within the ministries and central boards. The lack of relations and communications between leading enterprises and small businesses are also a reason.

Effective mechanism for integrating small and large businesses in the industry sector is *subcontracting*. This is the way of organizing a production based on labor division between the contactors (customers) – specialized companies which produce components, perform services and work .

The use of subcontracting allows the host company to get rid of the cost for excessive production capacity and focus on technological upgrade and updating product range.

Subcontractors - usually small and medium enterprises performing work that they have contracted, can achieve high level of equipment utilization and productivity. The usage of a subcontracting mechanism allows optimization of production process and significant improvement of competitiveness. Contractors may be small businesses. In this case, they singly manufacture units, that contain the key know-how, and carry out final assembly. All other parts and components, manufactured by other companies, are subcontracted. This approach allows small businesses to produce quality products and do not spend money to purchase equipment and lease the manufacturing facilities.

Another example of cluster development of the border region is the Ukrainian Danube subregion. The Ukrainian Danube subregion has quite a lot of potential economic clustering which is necessary for improving regional competitiveness and creating a competitive sustainability. The bases for such clustering have been already formed by inter-branch complexes functioning in such spheres as agriculture, transport, biosphere conservation, recreation.

The characteristic of economic clusters is a competitive nature of their agents (economic players). Moreover, in the market economy, participants in the new cluster can become the agents that traditionally belonged to different cross-industrial complexes. An important role is played by the so-called "management/control actions" as the regulating function of regional and local authorities. In the area of service and "know-how" production technology, new economic and technological chains, which generate the creation of new clusters, are formed.

Local authorities of Ukrainian Danube littoral (Ukrainian Danube subregion) can significantly contribute to competitiveness of the region by supporting small and medium-sized businesses, which are particularly sensitive and resourceful, therefore, very interested in the development of the existing clusters and the creation of the new ones.

The main instrument of regional competitiveness for local authorities of Ukrainian Danube subregion should be the creation of set of conditions to conduct investments and business activities in this subregion. Creation of such complex, the identification and strengthening of the existing and the development of the new competitive advantages of the territory are main tasks of the regional investment strategy.

The first stage of the work forward improvement of the competitiveness of the region should be an inventory of its actual and potential competitive advantages, starting with the geographical location and ending with "know-how" ideas which implementation could enhance the competitive stability in the Ukrainian Danube subregion at different levels of regional competition.

The second step consists of the identification and classification of competitive clusters – groups of companies and organizations, the cumulative result of which is to release products (services) outside the subregion.

At the third stage, it is necessary to establish macro- and microeconomic mechanisms to improve regional competitiveness. For the Ukrainian Danube subregion they imply:

- to increase profitability of existing businesses;
- to increase revenues in local budgets;
- to increase incomes and improve living standards;
- more efficient use of resources in the region;
- to ensure long-term economic stability;
- to increase investment attractiveness of the area;
- increased entrepreneurial activity in related industries;
- to eliminate (output outside the cluster) non-core and non-competitive industries and activities;
- to create companies that complement and support service activities of existing clusters;
- to promote organizational unification of scattered industries and activities in one cluster;
- to eliminate inter-cluster competition in the subregion;
- to reduce dependence of clusters' activity from external resources.

Qualitative analysis of the potential clustering of the Ukrainian Danube economic complex is mainly carried out in the context of operation in the subregional inter-branch complexes that may be the centers of potential clusters.

Factors of the clustering system include the following elements:

1. Factors of production: a qualitative assessment of the availability and accessibility of factors of production (available/unavailable).

2. Demand in the domestic market: a qualitative assessment of the level of customer demand in the region (high/medium/low) relative to: product range, novelty of products, product quality.

3. Competitiveness of suppliers and other related areas in the region: assessment of current conditions is critical for a cluster and its competitive stability (presence /absence, active/passive). This is characterized by the presence and level of activity of the professional non-profit organizations in this complex (unions); the presence and level of activity of the research organizations, associated with the interdisciplinary complex; the presence and level of institutions, associated with the cross-industry complex; the presence and degree of activity of

non-profit organizations that contribute to this complex, and the level of interest that public institutions show in the enterprises of this complex; the presence and level of facilitation of media organizations (media) of the complex.

4. Factors that motivate the development of effective management strategies: the existence of conditions which promote effective strategies for the organization and management of cross-sector complex, including competition in the domestic market. As a result, there are three types of inter-branch complexes: interdisciplinary complex with high potential for cluster existence, which has sufficient informational support and requires minimum control actions; inter-branch complexes, where it is possible to create clusters with long management/control actions; inter-branch complexes, where the creation of clusters with considerable expense is incomparable with the expected effect.

5. Potential institutional organization of clusters. In the cluster analysis, there are cluster groups that are characterized by the following features: structuring (presence of organization); stability (permanent staff members); possibility of statistical monitoring (for the formation of the state and municipal statistics).

6. Motivation to initiate and support clusters: the motivation of participants in the cluster. Here are the following backgrounds of clustering: production of homogeneous products; uniformity of main buyers – large public institutions, ensuring capital flow as well as mobility within the cluster;

7. Competitive strength of cluster members. A factor that determines the competitive strength of the cluster can be competitive strength of its individual participants. Here are the following options: a cluster with approximately the same competitive strength of participants; a cluster where the competitive strength of the central participants far exceeds competitive strength of others; a cluster where the competitive strength of the peripheral members far exceeds the competitive strength of the central ones; and a cluster which consists of competitively weaker participants.

Here is an example of economic opportunities in agricultural and industrial clusters of the Ukrainian Danube subregion. There are 5 almost completely isolated branch subcomplexes:

- 1) viticulture (Izmail winery + processing facilities + grape vendors);
- 2) tinned vegetables (Izmail cannery Kiliysky + facilities for primary processing of vegetables and fruits + vegetable and fruit vendors);
- 3) grain and industrial (factories “Bolgradsky” and “Kiliysky Hliboprodukty” + grain elevators of Reniyskoye, Izmail, the Danube delta’s ports + grain vendors);
- 4) meat production (Izmail meat-packing plant + facilities in Reni, Bolhrad, Kiliï + livestock suppliers);

5) milk production (Izmail, Kiliyskiy milk plant + separator plant + suppliers of bulk raw milk).

The problem of improving the competitiveness of the Ukrainian Danube subregion should be resolved on the basis of synergetic processes of cross-border cooperation and regional competition in the framework of the euroregion "Lower Danube" [2, p. 7–16].

Potential of Odessa region regarding the formation of cluster structures is quite significant. In particular, according to 143 types of activities the specialization ratio/coefficient is greater than 1. Total sales of the companies of the region (for these activities) exceed the share of Odessa region in value added. Thus, the specialization coefficient in 42 activities exceeds 3.

Odessa region is relatively poor in natural resources: its share in the natural resource potential of Ukraine is only 3.7 %. Land resources are the main natural wealth of Odessa region as well as significant natural and recreational potential. However, the most important resource of the region is a significant intellectual potential. The economic structure of the region and the existing potential suggest potential forming of clusters in such sectors most of all. For the Odessa region, it is characterized by agglomerates (pre-clusters).

For the formation and development of clusters in high-tech fields, especially in information technology, it is necessary to create business incubators. One of the most important reasons of the lack of the clusters in Odessa region is a weak network between enterprises.

The Danube Delta is focused on a multi-level regional competition which is evident at the global, national, regional, sub-regional, and local levels. Ukrainian Danube economic complex has great potential of clustering which is a compulsory condition for improvement its competitiveness and sustainability of competitive regional markets at different levels. In this case already existing inter-branch complexes are the primary elements for clustering.

Microeconomic mechanisms for strengthening competitive clusters in the subregion include: withdrawal of non-core and uncompetitive industries and activities outside cluster boundary; creation of companies that complement service and support key production of the existing clusters; promotion of organizational unification of disparate industries and activities that are in the same cluster; elimination of inter-cluster competition within the sub-region; reduction of clusters' activity depending on external resources.

1. Anderson N. V. (2011), Innovation and organizational forms of cross-border cooperation (cluster models of business organization).

2. Anderson N. V. (2013) Typology of European regions of Ukraine on the stage and grade of development.

3. Ermishina A. V. (2005), Competitiveness of the region: Rostov State University

4. Sokolenko S. I. (2004), Clusters in the global economy, Kiev : Logos.

2.4 DEVELOPMENT OF ENVIRONMENTAL MARKETING STRATEGIES OF ENTERPRISES ON THE BASIS OF SUSTAINABLE DEVELOPMENT

Sales and marketing activities of industrial enterprises are undergoing changes caused by external and internal factors. The latter include: global trends of industry development; new social needs and environmental challenges; development of environmental awareness of population; dynamic change in rules of business and trade; increase of ecological crisis negative effect in all spheres of economic and social life; use of the term "sustainable development" in social and economic discussions; essential change of the control mechanism in the field of production [8].

These trends open up new prospects for industrial enterprises, sale of environmental products, for maintenance of already existing markets and opening of the new ones. Use of marketing techniques is advised to achieve the enumerated prospects.

The use of environmental marketing in industrial enterprises is to be provided according to the triune components of sustainable development: economic, environmental and social. An important role in this process belongs to environmental marketing strategies.

Development of environmental marketing strategies and modeling of ecological and economic strategic decisions is the final step in formation of environmental marketing system of industrial enterprises (Fig. 2.4).

This system is to be based on qualitative and transparent informational support, environmental marketing research, strategic and operational management of environmental marketing, marketing infrastructure [4, p. 239–243].

Main factors of successful functioning of the company environmental marketing system are as follows: national and international environmental policy (for example, international agreements, arrangements for development and protection of environment, etc.); legislation, standards, state regulations (such as environmental taxes, environmental regulations in resources use, reimbursement of environment damages, etc.); environmental certification of production; motivational tools (such as social and environmental advertising, environmental rating; environmental education, ecological culture, corporate standards and procurement rules).

Decisive commitment of top management to actions based on environmental marketing decisions is a prerequisite for development of effective environmental marketing strategies of enterprises. Thus, the role of environmental marketing is reduced to the following: consumer choice redirection, marketing mix refocusing, logistics system reorganization [1, p. 109].

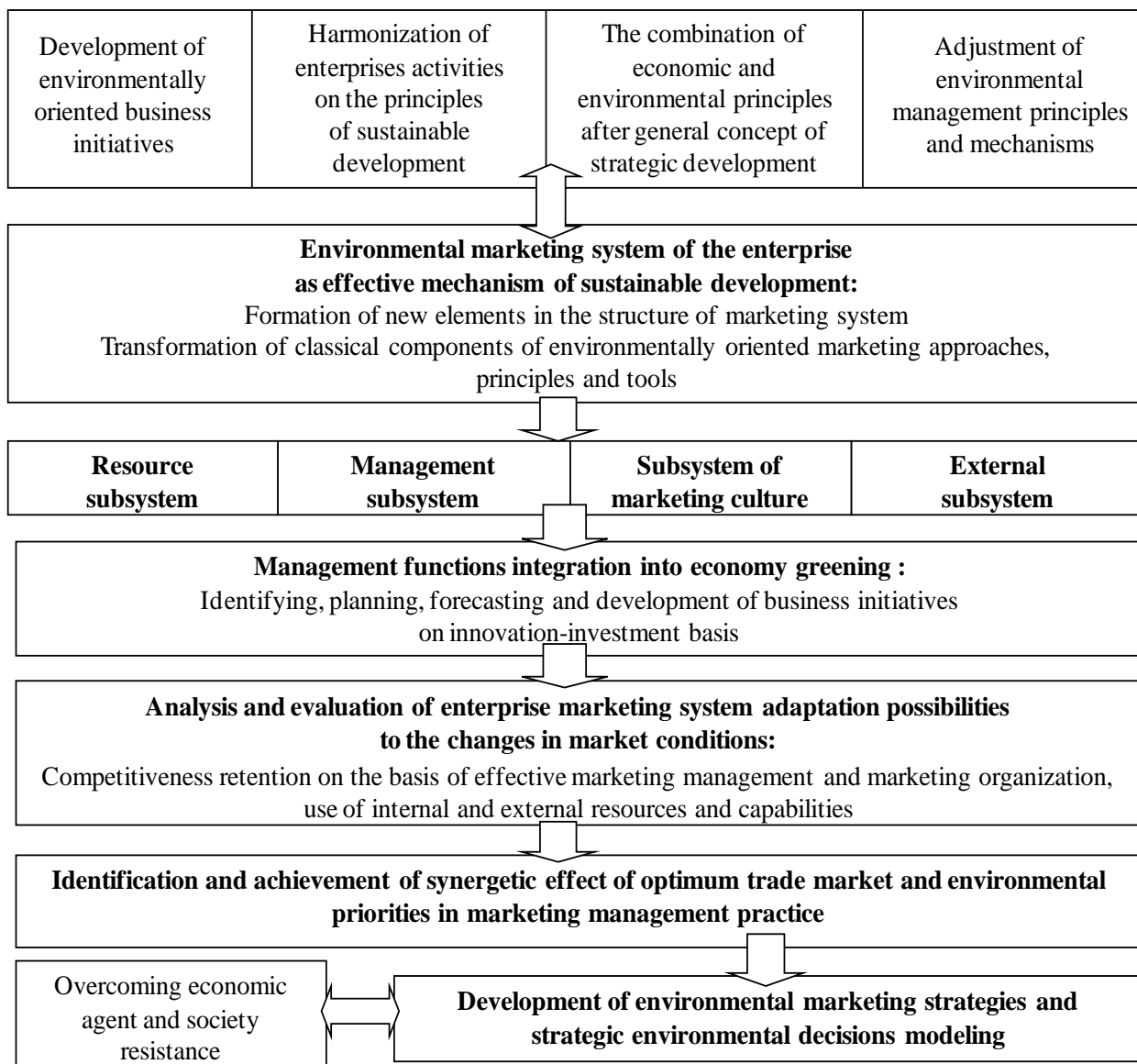


Figure 2.4 – Formation of environmental marketing system

[Author's adaptation based on 5; 6; 10]

Environmental marketing techniques are meant to facilitate mediation among market contact audience and enterprise partnership and communication. They are supposed to become a connecting link between production and market, the same as to integrate enterprise functions. Proposed sequence of environmental marketing system formation claims strategic modeling of ecological and economic decisions by following steps:

- to ensure effective transformation processes of industrial enterprises;
- to stimulate of new processes according to current and prospective requirements;
- to rise efficiency of the marketing potential components.

Managers today need to focus on the growth enterprises of the market value as well as being occupied with proper estimation of qualitative changes of internal and external conditions

of environmental marketing concept introduction. Therefore, it is important to pay attention to cost of resource efficiency and productivity of technological systems. We have analyzed a number of industrial issues with almost similar development level. Forest sector of Ukraine is chosen for research analysis. Chosen enterprises practice diversification under the influence of several factors according to standard classification. This reflects trends of European Economic Area companies marketing activities, including targeting markets gradual blurring under the influence of technological progress, economic crisis, necessity of resources recovery, efficiency and productivity increase [7].

Under conditions of cyclical economic and worsening financial crises, that are causing the decrease in the number of customers, the presence of intermediaries and organizations purchasing capacities, justified is the choice of the costs minimization principle based on resource use of technical efficiency. This approach to the marketing strategy is resource-oriented and corresponds to the environmental marketing concept priorities.

Creation of eco-friendly industrial output is intended to provide enterprises with competitive advantage in price, quality and core competencies. The latter can be achieved by obtaining a synergetic effect, and use of environmental marketing techniques.

The elaboration of effective strategies for enterprise development should include selection and substantiation of environmental and economic decision-making in the process of marketing strategies development. A strategy involves setting of objectives; these objectives achievement is based on evaluation of existing resources, tariffs, prices, etc.. Application of relationship marketing is considered as promising. It makes possible implementation of marketing research for homogeneous groups of enterprises in order to develop environmental strategies.

In regard to the aforesaid we consider appropriate to use cluster analysis in marketing for market segmentation, consumer buying behavior analysis, new product development, choice of test markets, etc. Western economists also use this method of analysis to identify groups of organizations with similar strategies within the same industry or to determine homogeneous groups by their development strategies. Developed countries' experience, namely Finland and Germany, proves efficiency of environmentally friendly companies or associations in overcoming distribution barriers.

Along with eligible for analysis enterprises, sampling cluster analysis was performed as follows: selection of analysis variables to define parameters of individual object characteristics, calculation of distances among the objects, definitions of cluster formation representative method and optimal number of clusters, validation of results. As mentioned above, the Ukrainian forest sector is chosen for analysis.

For data analysis were chosen inventories, fixed assets, assets and logical variables, which indicate their presence (1) or absence (0) in the enterprises using FSC certified raw materials and/or ISO 9001 certification of their quality management systems. At the beginning of 2011, the resource potential of nineteen (19) forest and wood-processing enterprises was analyzed. The analyzed companies have significant differences in their resource capabilities and asset structure [10].

The analysis was performed on the basis of the Ward method using hierarchical clustering, which relates to the agglomerative methods of dispersion cluster analysis in marketing by means of top down or bottom up structure.

The ward method helps to minimize clusters within-group sum of squared deviations and an accession of objects in clusters with minimal increase of within-group squared deviations sum. The dendrogram for hierarchical cluster analysis or clustering tree is shown in Fig. 2.5.

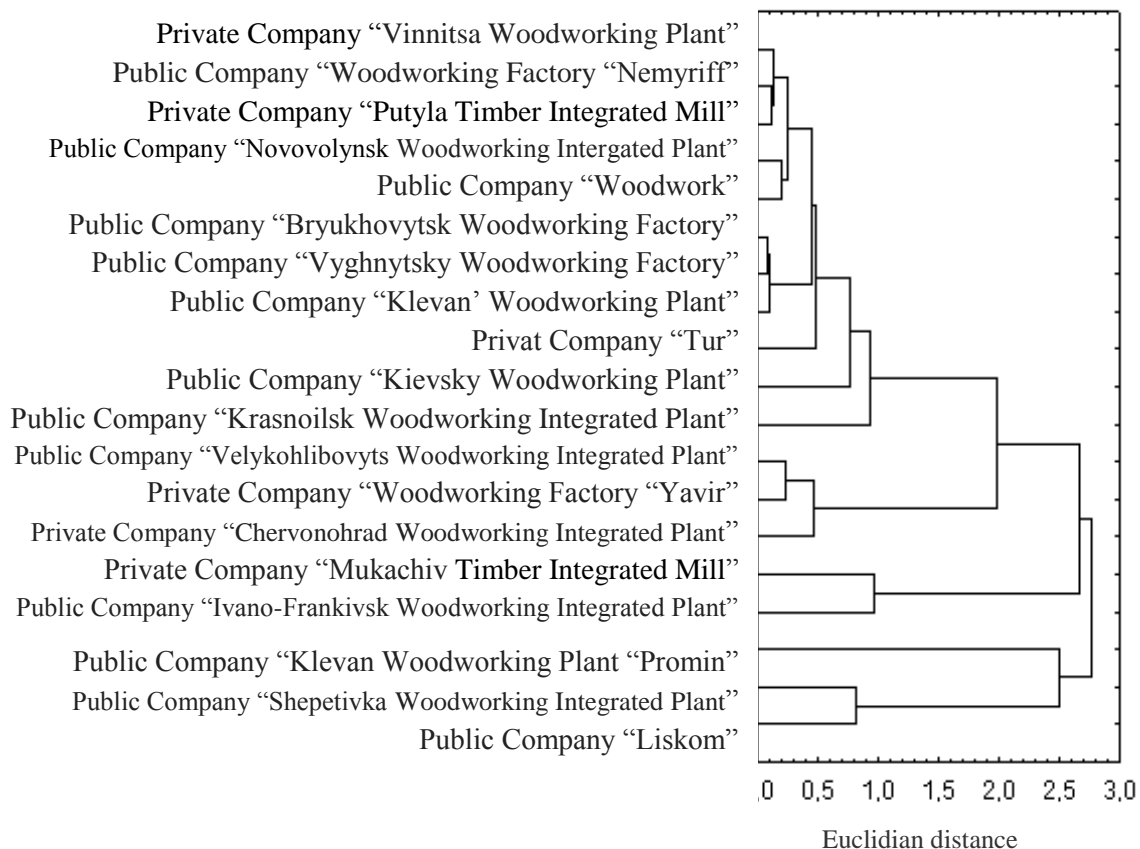


Figure 2.5 – Dendrogram for hierarchical cluster analysis of enterprises: example of the forestry sector of Ukrainian economy [Author’s adaptation based on 12]

The enterprises are organized into three clusters. We recommend to develop environmental marketing strategies on the basis of resource potential and initial management conditions of each group of organized clusters.

We consider reasonable to create no more than three clusters for nineteen analysed enterprises. The leading cluster includes five enterprises (Private Company “Mukachiv Timber Integrated Mill”, Public Company “Ivano-Frankivsk Woodworking Integrated Plant”, Public Company “Klevansky Woodworking Plant”, Public Company “Shepetivka Woodworking Integrated Plant”, Public Company “Liskom”).

The second group includes three medium developed companies (Public Company “Velykohlibovyt'sk Woodworking Integrated Plant”, Private Company “Woodworking Factory “Yavir”, Private Company “Chervonohrad Woodworking Integrated Plant”).

The determining factor for this membership is manufacturing of FSC certified wood products. The rest eleven companies are included into the group of the low developed companies. Shortly, each of these clusters will have different possibilities to implement environmental strategies.

Thus, marketing of the three enterprises within a cluster may be considered as passive. Their production capacity and the level of their business development do not meet the needs of the market and general trends yet.

Therefore, transition of these enterprises to management on sustainable development principles gives new competitive advantages and core competencies with gradual development of new markets.

Leading companies have real prospects and spare capacity to develop environmental strategies and to establish the following relationships: "development strategy of manufacturer's potential – strategy and potential of a client – an adaptation of principles of social responsibility – positive image formation – a search for new customers from neighboring industries".

The creation of initiative group of shareholders in companies developing financial rehabilitation programs of enterprises, improvement of export potential by technical and technological equipment upgrading are promising areas of development.

In addition, it is necessary to find new ways of product quality improvement to meet customer's demand and optimal pricing policy stimulating competition of producers of new similar products.

Enterprise environmental strategies regulate a sufficient precondition for development of environmentally friendly products through assessment of their life cycle.

Environmental strategy development of the company include integration of quite a number of social and environmental responsibilities and informational support requirements with the exploit of marketing tools and creation of new sales channels (Table 2.3).

Table 2.3

The objectives of marketing and strategy environmental management [2]

Claim	Objective	Function
Responsibility integration	Reduction and/or pollution prevention: <ul style="list-style-type: none"> • micro-level (procurement, logistics, production, marketing); • macro-level of enterprises (sales, maintenance, wear and tear of equipment, utilization and recycling) 	Coordination and integration of effective environmental planning and decision making
Informational integration	<ul style="list-style-type: none"> • Connecting link among companies, markets and society; • marketing ensures social and market demands 	Awareness and dialogue stimulation
Integration of tools	Referring marketing mix to environmental needs	Commodity and product policy ensuring
Integration of sales to a new level	<ul style="list-style-type: none"> • Successful search for solutions to marketing problems considering environment protection; • cooperation in vertical sales channels formation; • problem solving coordination at the enterprise level 	Coordination

According to H. Meffert, there are four main types of companies as to their willingness to integrate environmental objectives into industrial and economic activities [3]:

1. innovative companies conducting active marketing research aimed at the consumers' needs satisfaction in terms of environmentally friendly products;
2. socially responsible enterprises with marketing activities that are partially oriented to the environmental protection;
3. companies with adaptation strategies chosen without actual implementation of environmentally oriented marketing strategies, and meeting only existing legal requirements for environmental protection;
4. companies that ignore environmental requirements and challenges, do not envisage the development of marketing strategies and active strategies for environmental protection.

It should be noted that development of environmental marketing strategies, opposed to the usual ones, should consider a number of specific differences.

Innovation initiatives, cooperation (relationship marketing) and marketing communication development are to be given serious attention [2].

Environmental innovations are directly related to the objectives of environmental protection in specific company, namely to optimal use of resources, limiting emissions and risks. Cooperation based on relationship marketing should consist in collaboration with other market

players along the whole value chain. Communications policy is to provide information support throughout the whole stock of environmental strategies and actions.

A diagram indicating the development of the company-wide environmental strategies is shown in Fig. 2.6. The proposed options of environmental strategies are described in four quadrants. They are offered for a single enterprise as well as for the homogeneous clusters of enterprises according to certain features.

<p style="text-align: right;">III</p> <p>Optimizing production processes, targeting needs of society and achieving competitive advantages</p>	<p style="text-align: right;">IV</p> <p>Marketing for environment: specific environmental competences creation and product innovations introduction</p>
<p style="text-align: right;">I</p> <p>Conventional marketing</p>	<p style="text-align: right;">II</p> <p>Rationalization, differentiation in additional environmental segments, reduction of competitive disadvantages, timely identification and use of environmental protection as success factor</p>

Figure 2.6 – Environmental strategy development options

[Author’s adaptation based on 2; 3; 9]

In our opinion, the latter must be determined by:

- potential advantages of implementation of environmental strategies at the enterprises (quantitative benefits, such as increased market share, as well as qualitative, such as image improvement);
- price and cost changes within eco-friendly business activities of the enterprise, and introduction of product innovations as compared to traditional substitutional products;
- environmental impact of industrial and economic activity of the enterprise;
- social benefits of transition towards sustainable production and consumption.

Along these lines, we propose three types of strategies:

Strategy 1 lies in rationalization, differentiation in additional environmental segments, reduction of competitive disadvantages, timely identification and use of environmental protection as a success factor.

Strategy 2 aims to optimize production processes, to establish target needs of society and to achieve competitive advantages.

Strategy 3 aims to create specific environmental competence and introduce innovative products.

Companies of the second and the third clusters are schematically placed into the first quadrant (see Fig. 2.6). Much effort they require to maintain competitive advantages and a share in the market. Adaption to legislative requirements, search products for refinement possibilities and consideration of environmental factors for development, production and sales are important here. Their activities should be implemented in accordance with Strategy 1.

The companies of the second cluster present slightly higher level of development in the context of sustainable development, taking into account their production from partially certified raw materials. Nevertheless, taking into consideration their financial and economic indices and a set of macro and micro environment components of their activities, we place this stage of their development on the verge of quadrants I and II. Also, for the latter are relevant rationalization, additional environmental segmentation and search for market barriers by encouraging environmental invention and patenting. In addition, favorable conditions for domestic invention applications and registration, to counterbalance of the outflow valuable intellectual components abroad, are to be created.

The accounting of environmental pollution reimbursement expenses in production cost price leads to additional price increase. That's why price increments are to be compensated by other marketing techniques. Successful market and sales conditions are achieved by means of companies' communication policy when emphasis is put on environmental benefits of products and goods.

Strict government policy and environmental buyers' education make enterprises to transform environmental requirements into new standards of product quality and to develop new business models and strategies. International experience of acceleration of these processes proves that it is largely determined by the processes of environmental integration with versatile aspects of marketing management.

The top management of a company should find the ways and means of transition to environmentally friendly product manufacturing. Fixed costs are to increase under close control of production in the result of transition to new equipment use. Costs for equipment, depreciation

expenses and salary costs of management personnel are included. The greater is the use of raw materials, the higher get variable costs, present in the costs of raw materials and salary of core personnel. In this regard, it is important to control price increases for insolvent customers.

An increase in variable costs along with the increase of fixed costs (net costs) may be caused by the influence of modernization, purchase of cleaning equipment, increasing requirements for personnel safety, etc. In such a case, market situation is possible when the break-even sales volume stays constant. Still, most likely, it is necessary to put on the market bigger quantity of products in order to secure the break-even point of production. A sufficient number of clients, customers and new contracts are necessary for production volume increase. Depending on specifics of economic activity, problems with provision of raw materials, in particular with raw wood supply in forest sector, may arise. Volumes increase in processing non-wood forest products (fruits, berries, mushrooms, birch sap, medical and industrial raw materials), as well as recreational services of forest ecosystem enhancement, have high potential of successful pricing policy.

Traditions of environmentally friendly product consumption are being shaped only in Eastern European countries, including Ukraine. Thus, issues of environmental strategies and mechanisms of their impact on to consumers are of critical importance.

Development of sustainable production requires:

- further development of national legislation and regulatory framework for sustainable production, its harmonization with international normative legal bases for enhancement of circulation of environmentally friendly products on foreign markets;
- development of marketing communications and marketing informational support in order to raise the stakeholders awareness;
- formation of marketing policy in retrieval of long-term supply contracts for certified products;
- improvement of control mechanisms of manufacturing environmentally friendly products manufacturing to ensure the quality and their relevance to final users;
- transformation of sales and marketing activities towards the growth of social values, motivation, stimulation and development of consumer demand for sustainable products;
- estimation of optimal ways and means of modern energy and resource efficient high production technologies to reduce costs and to increase attractiveness of such products for domestic and foreign consumers.

Thus, environmental marketing is important in environmental strategy development of the enterprise as a tool of environmentally friendly production. Cluster analysis helps companies with similar development potential, allows to assess their market position and to create appropriate opportunities for each group of environmental strategies. Cluster analysis makes possible coordination of strategies and marketing development activities of homogeneous groups of industrial enterprises, their cooperation and collaboration towards environmental innovations, transition to resource- and energy-saving technologies, certification of production processes.

The concept of sustainable development is consonant with the concept of environmental marketing [11]. The latter implies production and marketing orientation at customers environmental needs, as well as creation and stimulation of demand for environmentally friendly goods, products and services in addition.

The concept of environmental marketing corresponds with sustainable development ideology as one of the most modern concepts of present-day business [11]. Development of environmental marketing strategies, based on relationship marketing and sustainable development principles with simultaneous competitive advantages, contributes much to relevant response to various economic, social and environmental challenges of modern time.

1. Fuller D. A. (1999), Sustainable marketing: managerial-ecological issues, Thousand Oaks, California : SAGE Publications Ltd.
2. Hopfenbeck W. (1994), Umweltorientiertes Management und Marketing: Konzepte – Instrumente – Praxisbeispiele, Landsberg/Lech : Verl. Moderne Industrie, (3. Aufl.).
3. Meffert H., Kirchgeorg M. (1998), Marktorientiertes Umweltmanagement. Konzeption – Strategie – Implementierung mit Praxisfällen, Stuttgart : Schäffer-Poeschel Verlag (3., überarbeitete und erweiterte Auflage.)
4. Бакай В. Й. (2012), Розвиток маркетингової діяльності у сфері агробізнесу, Всеукраїнський науково-виробничий журнал «Сталий розвиток економіки», №2, с. 239-243.
5. Божко В. М. (2012), Місце екологічного фактора в системі маркетингового потенціалу лісогосподарського підприємства, Наука й економіка, №4(28), Т.1, с. 193-198.
6. Мішенін Є. В., Ярова І. Є. (2011), Соціально-екологічна відповідальність підприємств лісового комплексу України, Економіка та менеджмент: перспективи розвитку, матеріали доповідей Міжнародної наук.-практ. конф., Суми: СумДУ, Т2., с. 141-142.
7. Мних О. Б., Бек О. М. (2002), Маркетинговий аналіз діяльності підприємств у європейському економічному просторі: теоретичні і методичні аспекти євро маркетингу, Наук. вісник Чернівецького економічного інституту «Економічні науки», Вип. 2., ч. 2, с. 31-34.
8. Польовская В. Т. (2013), Эколого-экономические решения в маркетинговой стратегии развития предприятий лесной и деревообрабатывающей отраслей, Международный журнал «Устойчивое развитие», Варна: Евро-Эксперт ЕООД, Выпуск 8, С. 105-109.

9. Польовська В. Т. (2006), Екологічний маркетинг як інструмент лісової політики (2006), Лісове господарство, лісова, паперова і деревообробна промисловість, Випуск 31, с. 114-120.

10. Польовська В. Т. (2013), Формування системи екологічного маркетингу в лісовому секторі економіки на засадах сталого розвитку, автореф. дис. канд. екон. наук: 08.00.06, Львів: НЛТУ України.

11. Прокопенко О. В. (2007), Концепція екологічного маркетингу в контексті сталого розвитку, Екологічний менеджмент у загальній системі управління, Тези сьомої щорічної Всеукраїнської наукової конференції, Суми: СумДУ, С. 90 - 93.

12. <http://smida.gov.ua> (Official site of "Infrastructure Development Agency of Ukraine's stock market") [last access: March 20, 2013].

2.5 LIMITATIONS TO SUSTAINABLE DEVELOPMENT OF TOURIST TERRITORIES: POSSIBLE SOLUTIONS FOR REPUBLIC OF BULGARIA

The development of world economy over the past two centuries has been marked by technological innovations and formation of the new global society. While the countries of West Europe and North America developed market economics, the East world applied the principles of planned economy. With the condemnation of the Socialist doctrine at the end of the 1980s, the principles of market economy became a world paradigm. The benefits of adoption of market organization have been proven and widely known as based on and bound with the efficient use mainly of capital and labour force together with the other factors of production. They are also tied to the operating capacities of production sector, to the efficient response to changes of demand and its adequate satisfaction, to an automatic adjustment of proportions of public production described as self-regulation of economy, etc. [8, p. 1]. However, some serious defects have been found. They mainly concern the restrictions of solvent demand, instability of economic development and difficult prognostication of changes occurring in economic conjuncture. Their aggregate occurrence, as well as particular fluctuations, brings to crises and bankruptcy, overproduction or retardation of economic growth, drop of living standards of population and the related serious social issues, etc. Their forecasting, overcoming and managing is a target of serious theoretical and applied settings, and a part of them originates from the conception of sustainable development. They are based on the vast experience gained by the economically developed countries which have designed various methods of partial prognostication, assessment and management of market risks [13]. At a macroeconomic level, this process is governed by the state (through the government). At a microeconomic level, this methodology is implemented in the activity of various business entities – banks, industrial enterprises, insurance companies and

others. An enormous experience has been gained to that regard, useful for the organization of business activities in the situation of globalization, dynamic and complicated market relations.

Conceptualizing the restrictions of sustainability

There are many publications focused on the issues of sustainable development and overcoming of accumulated economic, social and political problems. However, a great part of them is focused on private issues, and those referring to tourism and tourism industry are still on the periphery of scholarly interest. An impression is created that within the set framework, there are two major categories of restrictions hindering the sustainable development. One covers the negatives occurring due to globalization processes; the other – the derivatives of environmental and natural resource issues. Their explicit definition and identification are groundless in terms of dynamics of processes, but are related mainly to the market environment and market threats. Many of them affect seriously the individual business entities, as well as the economics and society in general.

The category conditionally marked as the first category studies the processes of globalization and the consequences of its occurrence with regard to the economic and social life [2]. They are mainly related to economic deregulation during the second half of the 20th century and to weakening of national sovereignty of countries. It is regulated by Directive 2004/35 of the European Union from April 21, 2004 on environmental liability regarding the prevention and compensation of environmental damages, as well as by the liability law for prevention and removal of environmental damages [4].

The second category is still in the sphere of consideration, scientific discussions and theoretical interpretations. In general, it covers the environmental and natural resource restrictions, imposed upon the modern human society, which have aggravated over the last decades of the past century.

Their manifestation is determined by globalization and impact of market factors. But at the same time, their establishment, prognostication and management are directly related to sustainable development. In support of this statement are the facts from the reports of the Club of Rome, in which even in the middle of the 20th century positions were expressed for expected negative trends with regard to the world economic growth [9].

According to them during the new millennium the development of economy will be affected by the population growth harmful to the environment, exhaustion of non-renewable resources, decrease of bio productivity on the Earth, and last but not least – by the progressing overpopulation of the planet.

As a result from their occurrence, drastic differences are expected between the living standards of population in the different parts of the world which, in their part, could provoke local and global war conflicts, the scales, directions and consequences of which are not subject to prognostication [9, pp. 90–93].

For the sake of objectivity, it should be mentioned that many of the forecasts made years ago have already become a reality, and countries have to face them in their development. The threats to their socio-economic development and to the development of the human society in general have abruptly increased. They were found out and brought to the knowledge of the general public as early as 1992 at the remarkable United Nations Conference on Environment and Development in Rio de Janeiro. With the preparation and announcement of the Agenda for the 21st Century, environmental, resource and socio-political restrictions and threats to the development of mankind were defined and specific decisions were made for their limitation and control. The general outlines of the concept of sustainable development were approved, too. Nowadays, however, we have the picture of the world which has not passed to sustainable development yet, but has become even less sustainable and subject to prognostication. The withdrawal of the state from the economy regulation, which has become a worldwide trend, does not contribute to the solution of natural resource and economic problems. Leading specialists in their analysis more and more frequently recommend the replacement of market “self-regulation” mechanisms, unable to provide radical overcoming of environmental crisis, by serious regulation and state financial support [12].

The imposition of the environmental or natural resource restrictions is also of great importance for the tourism industry. Their manifestation is related directly to the establishment of the opportunities of sustainable tourism development, in general, and of travel destinations, in particular. The travel destination, in particular, is also subjected to environmental impacts and restrictions, which, in general, can be systematized into five major groups (Tab. 2.4).

Their manifestation is a derivative of the growing negative impact of technologies and communications at the end of the 20th century on tourism that made it an environment-sensitive sector. That, in its part, increases the significance of legal regulations and their implementation, at this point, for the regulation of tourism activities together with the environmental protection and the maintenance of environmental safety of the destination, and that draws the attention to the contacts of the sector with the non-governmental environmental organizations and mass media, on the occasion of the occurrence of potential environmental problems and their announcement to the public.

An example to that regard can be taken from the insurance sector considering the reduction of snow blanket and the problems of winter tourism related thereto [11]. Due to the global warming, at the beginning of the winter season there is no sufficient snow blanket, and the season opening is postponed or provided by snowmaking machines. In Bulgaria, winter season activities in winter resorts – Bansko, Borovets, Pamporovo, and Vitosha – start after the first week of December owing to snowmaking guns.

Table 2.4

Major environmental impacts on the travel destination [14]

Typology of environmental restrictions	Characteristic features
Ecological Restrictions resulting from physical agents Restrictions resulting from force majeure impacts	Determined by changes in the natural environment Endangerment of natural and cultural resources Endangering health and safety of tourists
Technological Restrictions resulting from normal impacts Restrictions resulting from the catastrophic impact	Resulting from the emergence and development of technologies and their impact on the natural environment: - pollution and other environmental changes as a result of normal (flawless) business; - pollution and other environmental changes as a result of technology-based crashes, accidents, incidents
Social	Determined by the protective effects of the state and society to sharpen ecological problems by forming and developing eco-social environment
Normative	Conditioned by the adoption of environmentally friendly legislation
Political	Determined by ecological components of the public life (environmental organizations, political parties, population) for the protection of the natural environment

To that regard, the insurers have developed a new product for the tourists – a policy against snowlessness. In such situation the respective insurance products are offered in the developed ski countries. For example, travel insurances adequate for winter conditions, offered to the British tourists, have covered the so-called ‘Snow guarantee’ for years [10, p. 56]. The insurers cover the risk of snowlessness for resorts located at an altitude of 1000 m above sea-level or higher and pay the tourists GBP 20 – GBP 50 per snowless day of compensation. In Austria, the individual tourists are offered a defence against such a risk by the policies of the cancellation insurance (at a price of approx. EUR 100), which guarantee cancellation of the booked winter holiday and to get a refund on the sum paid for it.

The negative influence of technologies on the environmental conditions of the activities, implemented in the travel destination, is manifested with a particular tangibility at the points on its territory which have an increased environmental sensibility, and the environmental conditions prove to be a significant element of its production and economic potential.

The solution of environmental problems is of vital significance for the competitive power of the travel destination which has to conform each of the tourism and other activities, carried out on its territory, with the observance of particular environmental parameters. Taking into account this way, the process of environmental restrictions establishment is directly bound with the planning and undertaking of specific actions for their prevention and overcoming. The whole large aggregate of management practices and decisions is becoming a new section in the general theory of management. Notwithstanding the presence of a series of unsolved and hardly surmountable problems, the first steps undertaken to that regard have been highly appreciated by the consumers of the tourism product on a global scale. To that regard Bulgaria, as a country of developing tourism, should observe the European directives and successfully bring into line its tourism policy and practice with other EU member countries. In the broadest framework, the immediate manifestation of environmental restrictions on the components of the travel destination can be presented through the scheme shown in Fig. 2.7.

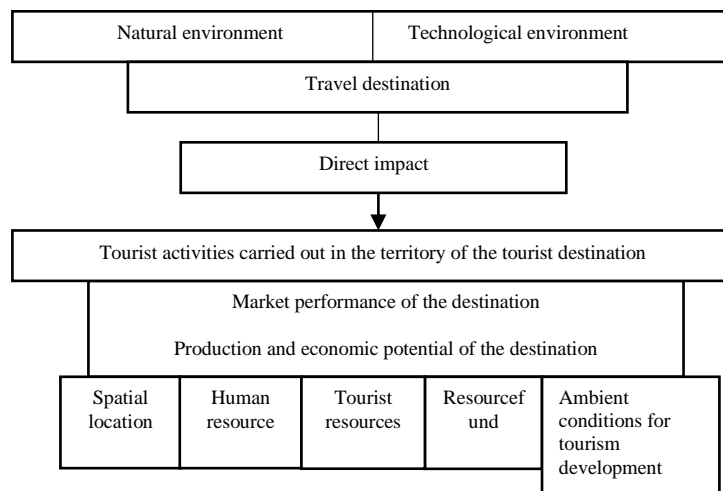


Figure 2.7 – Environmental restrictions that influence the travel destination
[Author’s research]

The travel destination as a territory provides unique combinations of natural and anthropogenic resources as a formatting base for tourism products, attendance and experiences. At the same time, it is used as a basic unit of analysis in the area of tourism, as well as a focal point in the sales of the tourism product and the implementation of various policies in the field of

tourism. Therefore, in order to overcome the big challenge in tourism on the achievement of integration of environmental sustainability with economic growth and wealth by finding the balance between environmental degradation and economic development, the attention is once again drawn to the travel destination.

Accordingly, the tourism policies fulfillment should provoke the establishment of conditions for preservation and maintenance of the cultural and historic heritage, economic activity balance, sustainable development and popularization of life in conformity with the laws of nature, innovations in a technological aspect, and of good practices exchange. The good practices, to that regard, are found with key European strategies, policies and practices. But regardless of the generally declared good will, the consequences of climate changes and the growing need for energy- and resource-efficient economy make developing tourism of the countries face continuous challenges.

Prerequisites for Sustainable Development of Tourism Destination of Bulgaria. Tourism is a leading industry in Bulgarian economy. It is characterized by dynamic and sustainable development and high rates of growth clearly expressed since 2000. Its contribution to the GDP growth of the country is indisputable, and this makes it an efficient tool of social and economic growth. The merits for its development could be regarded, to a large extent, to private entrepreneurs. Nowadays, over 99% of tourism sites are private or shareholders' property.

Another factor influencing favourably tourism is foreign investors' increasing interest in Bulgaria. The big hotel, restaurant and tour operator chains and companies, making their way into the country, actively contribute to the process of tourism industry globalization. The share of Bulgarian private investments is increasing all the time, particularly, in the development of holiday complexes. The adopted legal and bylaw regulations for the activities and development of tourism in the country is a certainty.

The development of tourism over past years has also affected positively other sectors of national economy, e.g., like construction, agriculture, food, wine and tobacco industries, transport, etc.

The processes of privatization and restructuring, transition to market economy, next to common economic stagnation, exert relatively short-term negative impact on the Bulgarian tourism. A quick recovery of different sectors of national economy after the crises are expected to report their sustainable development.

These expectations evolve from the durable trends established over the previous years with regard to the rate of growth of tourists and foreign currency revenue. A significant growth for Bulgaria (by 15 %) was registered for the period of 2000–2004, while the world growth was

between 3 % and 5 % per year. The growth, though of smaller rates, has been preserved in the following years up to 2009. It is a fact that tourism is one of the major industries with a big contribution to the foreign currency revenue of Bulgaria. Based on data for year 2005, tourism held an 11 % share in GDP; in 2007, the **sector of Tourism generated 14 % of GDP** of the country. During the tourism high season the number of those employed in tourism doubles. In 2009, the share of tourism in Bulgarian economy was 12 %. The relative share of added value made by the activities in the field of services, in general, was 59.1 % of GDP which is by 0.6 % higher than the value reported for the respective period of the preceding year. The sector of services shows an actual decrease by 0.7 %, but the relative share of the sector in the added value of economy grows from 60.4 %, in the third quarter of 2008, to 62.0 %, in the respective period of 2009 [15].

Following several years of uplift, in 2008 the growth of world tourism showed first signs of detention hardly reaching 1 %. These data are presented in a report of the World Travel and Tourism Council. It also states that in year 2009 the economic growth of the sector was 3.3 %, and for 2010 a drop down to 0.3 % is expected. This drop will affect Bulgaria and some other European countries in the economies of which tourism and travels hold a significant share. It exceeds 15 % in Greece, Spain, Cyprus, Montenegro, Croatia, and Estonia. The reduction of the number of tourists for 2009 is approx. 20 % in Greece and Spain, and exceeds 30 % in Cyprus. Business activities in Bulgaria for 2009 show more than 30 % reduction of the number of British tourists, approx. 20 % – of the Russian, and some 10 % – of the German tourists. Only the number of Romanian tourists shows growth.

The share of those employed in tourism industry in Bulgaria is impressive, too. More than 75 000 people are employed directly, and over 175 000 people are engaged indirectly in selling goods and services to tourists, which is approx. 5 % of all the employed in the country. The number of family members employed in family hotels, restaurants or as tour operators and travel agents shows 6 000 people. Thus, the industry makes a significant contribution to the employment rate employing more than 250 000 people.

More than 99 % of tourist sites are private owners' and shareholders' property. The intense development of holiday villages and hotels, mainly along the Black Sea Coast, resulted in the opening of 50 000 beds. Some 70 % of the old tourist sites have been reconstructed. The share of high-category hotels is significant; they cover over 80 % of the accommodation facilities in Bulgaria. A growth in the family hotel business' development is reported, too; and commissioning of 5 holiday village projects is pending.

Every year about 6 000 000 tourists visit Bulgaria [16]. The greatest intensity of visits is observed during the summer season and, in particular, from the end of May through the middle of September. Since 2000, the dynamics of visits of international tourists have shown a yearly growth by an average of 12 %. Currently, there is a balance growth of some 2 % per year. The major tourist flow comes mainly from the EU member countries which make approx. 60 % of the number of international tourists in the country. Citizens of countries like Greece, Germany, the United Kingdom, Russia, the Czech Republic, Sweden, Finland, etc. show interest for Bulgaria as a travel destination. Our country is a novice in the tourism market, as well as Macedonia, Serbia and Montenegro, Belgium, Ukraine, etc.

Tourism shows growth and increasing contribution to the development of Bulgarian economy but, however, there are some problems preventing the industry from being brought into conformity with the European and world standards for quality and hospitality. A large part of the tourism potential of the country is not utilized yet.

Many reports, prepared with a view to positioning the branch within the structure of the national economy, state the significance of tourism for foreign currency revenue, the proceeds from the tourist sector to the state budget and the share of the workforce employed. They also mention and analyse the problems to be solved in the process of adaptation of the country to the world processes in progress. Some of these difficulties are caused by irregular economic growth and development of the country, the low personal income of the population and lack of a significant segment of solvent Bulgarian citizens. These factors influence negatively the demand for high-quality tourism products and services on the domestic market.

Another moment of significance is the need for enhancement of competitive power of tourism industry through diversification of the offered tourism products, improvement of the educational level of the staff and adoption of a strategy on even geographic distribution of tourism activities, taking into consideration their seasonal character [7, p. 41]. The coordination and facilitated communication between the state institutions, tourism business and local community at the travel destinations, as well as the need for purposeful policies, programmes and measures appear to be a good opportunity for the improvement and regulation of legal relations within tourism.

A significant part of the issues and challenges faced by the progressive and sustainable tourism development in Bulgaria as a travel destinations are inherited, in particular, the restructuring of title to the tourism assets, de-centralization of management, country membership in world, European and regional tourism structures and associations. Our country accession to the European Union has also become a challenge to a large extent.

However, Bulgarian laws, bringing into line with the European legislation the regulations on tourism business, should be stated as a principal prerequisite for the attainment of sustainability. In compliance with the European rules, it is possible to achieve an efficient dialogue between the state institutions in charge of the changes in tourism-related legislation in the process of European integration and organized civil community.

It is also necessary to undertake purposeful measures, initiatives and programmes in order to achieve sustainability in the development and competitive power enhancement of tourism industry of Bulgaria. The favourable impact of similar measures and programmes implemented by such countries as Greece, Turkey, Croatia, Spain and Italy have made tourism a priority economic sector in these countries and could be adopted by Bulgaria, too.

For the achievement of sustainable development Bulgaria has to develop purposeful and differentiated local, regional and national policies with a view to the particular specificities and resource potential. The preliminarily set measures are the instrument for monitoring and control of the organization, development and management of efficient tourism. These would place the country, with regard to destination, among the leading tourism countries and destinations on the international market of tourism.

Research prove that Bulgaria's part on the European tourism market is smaller than 1 %. The visa regimens currently in force for Ukraine and Russia, and until recently – for Serbia, worsen the country's position on their markets regardless of any measures undertaken to facilitate tourist travels. Bulgaria has not yet restored its previous positions on the markets in Poland, Slovakia, Hungary and other countries of Central and Eastern Europe, and the number of tourists is extremely small. A special attention is to be paid to that regard to the facilitation of visa formalities for organized tourists, for the purpose of the sales promotion of tourism services, as well as advertising abroad. Currently, there is no institution which is established to provide financing of such activities, and there are no facilitated procedures for funding the popularization of Bulgaria as an attractive travel destination on the international tourism market, regardless of the numerous public discussions on the establishment of a national publicity fund (for example with the National Tourism Council) to be financed from the state budget funds, fees for registration and categorization of tourism sites, and other local charges.

Events like “Bulgaria – a Country of Dreams” and the annual competitions for “Excellent European Destination” are aimed at the popularization of our country on an international scale. However, their main effect is their contribution to the development of projects and initiation of events in the field of sustainable development. As a result of the experience gained, the experts have identified a problem – lack of an efficient operating mechanism of cooperation between the

state institutions and the non-governmental organizations at a national, regional and local levels. Such cooperation would contribute to the popularization of Bulgarian traditions and culture which, from its part, would attract the interest of international tourists.

A great number of Bulgarian agencies abroad have suspended their activities. Currently travel packages for the destination Bulgaria are sold abroad mainly by local tour operators and travel agencies of the foreign countries, and the role of the former Bulgarian agencies in the cities generating the major tourist flows – Berlin, Frankfurt, London, Moscow, Kiev, Stockholm, etc. is negligible.

On the other hand, with regard to the creation of prerequisites for sustainable development of the destination Bulgaria, priority directions should be outlined. Next to the complex and interconnected legal regulation, other identified priority directions are the state economic stimuli in the field of tourism services and the implementation of the National Strategy for Sustainable Development of Tourism in Bulgaria prepared in 2009. It puts the stress on the long-term objectives and priorities for the destination Bulgaria, as well as on the trends of the product policy in terms of “hospitality” at all levels and on the supply of auxiliary tourism services [7, pp. 57–59]. A special attention is devoted to the marketing policy: market positioning and targeting of the destination Bulgaria, etc.

With regard to that strategy it is necessary to update and specify all the laws and other regulations concerning the activities in tourism sector, urban planning of tourism locations, free and sustainable development. This will bring to the establishment of prerequisites for the recognition of clear business rules and undertakings, of orderly organizational structures and interrelations between the parties interested in the tourism development with a view to the timely solution of the occurring problems. The lack of purposeful state policy for the attraction of Bulgarian and foreign investments results in the lack of order in concessioning and development of tourism areas. The illegal and unfinished within the terms due construction is another obstacle to the development of tourism. The state should adopt a policy for orientating and directing the investments to regions, settlements and resorts of significance for the country. In order to reduce the unfavourable effects, it is necessary to introduce tax and other economic stimuli that will attract foreign and local investors.

Currently, Bulgaria has no diversified tourism product. The country relies mainly on marine tourism which generates about 75 % of the income, and to a significantly smaller extent – on winter mountain tourism. Other types of tourism like cultural heritage tourism, religious, ecotourism, rural, SPA and congress tourism are at an initial stage of development, though our country has huge potential to that regard.

Therefore, with a view to sustainability, it is necessary to establish favourable conditions and environment for the development of every form of specialized tourism.

Quality and variety of tourism services are still key issues of tourism industry. This is a consequence of the adverse effects of some factors, namely – unsolved infrastructure problems, quality of human resources, poorly arranged communications, high noise levels of entertainment venues, tourist safety and security during his stay in the country. The improvements in that regard are among the key prerequisites for the attainment of sustainability.

The tourism infrastructure is not less important. The issues related to poor infrastructure on the territory of the entire country are among the main obstacles to the development of marine and winter tourism, as well as of all the other types of tourism. The national, regional and local infrastructures, and in particular the roads, enabling development of settlements and regions of cultural heritage, rural and ecotourism, fail to meet the contemporary requirements of tourists. Another prerequisite is the solution of the unsettled issue of waste transportation and disposal. The quality of tangible facilities and infrastructure could be improved only by the efficient intervention of the government and local authorities. This will also significantly improve the quality of the tourism product, and thus Bulgaria will be able to attract a market segment of customers with higher income.

With a view to sustainable management, the development of infrastructure should be considered the main priority, regardless of the presence of serious problems related to the coordination of the efforts of responsible authorities on a national, regional and local level [5]. The educational aspect is also important. It is related to the education and qualification of staff in tourism. The purpose is to provide a qualified staff able to meet the continuous changes of the existing needs and requirements of consumers and the occurrence of new ones as a result of the dynamic changes at a European and global scale.

The limitation of the negative impact of grey economy on sustainability is another challenge. The number of people occupied in tourism without legal employment contracts exceeds 50 000, a figure which does not even cover the use of child labour. This fact influences negatively the competitive power and quality of services, which proves to be a serious restraining factor to the development of larger tourist sites and services. The grey economy leaves in tourists an impression of our country as a destination of low prices and low quality of services¹.

1. Assadourian E. (2003), *Economic Growth Inches Up*. Vital Signs 2003, New York.
2. Bauman Z. (1999), *Globalization: The human consequences*. S., LIK.

¹ The amount of probably hidden taxes is also embarrassing - BGN 120 000 000 just for the period 2001-2002.

3. Brown L., Flavin C., Postel S. (1991), *Saving the Planet*, New York.
4. Bulgarian State Official Gazette No. 43 from April 29, 2008.
5. Dimitrov P. (2013), Long-run forecasting of the number of the ecotourism arrivals in the municipality of Stambolovo, Bulgaria. *Tourism & Management Studies*, V. 9(1).
6. Filipova M. (2010), Peculiarities of project planning in tourism. *Perspectives of Innovations, Economics and Business*, PIEB, V.1 (4), pp. 57-59.
7. Filipova M. (2011), *Functional features in the management of the tourist enterprise*, "Neofit Rilski" University Publishers, Blagoevgrad.
8. Huntington S. (1999), *The Clash of Civilizations and the Remaking of World Order*, S. – Access mode: http://www.virtualnabiblioteka.com/images/upload/books/Novi/SamjuyL_Hyntigtyn_-_Sblysykyt_na_tsivilizatsiite_i_preobrazuvaneto_na_svetovniya_red_--b.pdf.
9. Meadows D. H., Meadows, D. L., Randers, J. and Behrens III, W.W. (1972), *The limits to growth: a report for the Club of Rome's project on the Predicament of the mankind*. New York: Universe Books.
10. Stankova M. (2003), *Tour operators and travel agent's activities*, "Neofit Rilski" University Publishers, Blagoevgrad.
11. Todorov T. *Ecological Risk – object of insurance?* – Access mode: <http://www.zastrahovatel.com/statia.php?mysid=2418&t=4&>.
12. Directive 2010/30/EU Report on the proposal for a directive of the European Parliament and of the Council on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products (recast). – Access mode: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:153:0001:01:EN:HTML>.
13. *Managing in volatile times*. – Access mode: [http://www.deloitte.com/assets/Dcom-Bulgaria/Local%20Assets/Documents/bg_consulting_ManaginginVolatileTimes_160409\(1\).pdf](http://www.deloitte.com/assets/Dcom-Bulgaria/Local%20Assets/Documents/bg_consulting_ManaginginVolatileTimes_160409(1).pdf).
14. Oak Ridge National Laboratory (ORNL). – Access mode: <http://www.esd.ornl.gov>.
15. *Tourism Statistics*, Bulgarian Ministry of Economy, Energy and Tourism. – Access mode: <http://www.mi.government.bg/en/themes-c240.html; / c262.html>.
16. *Sector statistics/Tourism*. – Access mode: <http://www.nsi.bg/bg/content/1847>.

2.6 CORPORATE ENVIRONMENTAL RESPONSIBILITY AS A TOOL FOR SUSTAINABLE DEVELOPMENT OF A COUNTRY

Environmental problems are often viewed as unregulated externalities, or effects that are not reflected in market prices. Traditionally, environmental protection has been considered to be “in the public interest” and external to private life [12]. “Environmental costs have been treated as “externalities” arising from economic activity, and these costs are typically not borne by the producer and are thus not included in the market transaction” [1].

World Commission on Environment and Development indicated sustainable development as a critical global task and defined it as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” [3]. According to

G.H. Brundtland (1987), “sustainable development requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life”. In this case, economic development and growth are accompanied by the health and functionality of ecosystems and communities; and environmental protection is an important task on the path to sustainability. Therefore, transition to sustainable development requires significant changes in economic and social spheres in terms of reducing negative impact on the environment.

At the same time the question arises in what a way is it possible to reach sustainable development in practice, especially in case of business.

Cooperation between business, government and society is linked to the concept of corporate social responsibility.

The idea is that organizations consider the interests of society, placing responsibility for the impact of their activities on stakeholders’ public sphere and encompassing legal, ethical, and discretionary expectations that society has of organizations [4]. Socially responsible business voluntarily carries out activities aimed at improving the quality of life of workers and their families and the local community and society in general. A. Dahlsrud (2008) tried to systemize definitions of the term “corporate social responsibility” referring to five dimensions: economic, social, environmental, stakeholder and voluntariness. The two most popular definitions of corporate social responsibility are as following:

1) “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” [6];

2) “the commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve their quality of life” [21].

The definitions show that corporate social responsibility is not a new aspect at a conceptual level as business has always had social, environmental and economic impacts, been concerned with stakeholders, and dealt with regulations. However, at an operational level, the story is different. Due to globalization and the idea of sustainability, new stakeholders and different national legislations are putting new expectations on business and altering how the social, environmental and economic impacts should be optimally balanced in decision making [7].

Thus, on its way to sustainable development, a country needs to consider not only economic but also environmental aspects of business.

Therefore, the question of corporate environmental responsibility arises. Corporate environmental responsibility is the environmental aspect of corporate social responsibility [12].

This is a set of initiatives aimed at mitigating a firm’s impact on environment, the initiatives that reduce the firm’s ecological footprint (such as: changes to the firm’s products, processes, and policies, such as reducing energy consumption and waste generation, using ecological sustainable resources, and implementing an environment management system) [2]. Corporate environmental responsibility contains the obligations of decision makers to take responsible actions which aim to protect and improve the environment as a whole, and which are also in line with their own interests [13].

While trying to investigate the roots for environmental aspect of corporate social responsibility taking Carroll’s pyramid into analysis, we identified ecological aspect of social corporate responsibility in legal responsibilities as well as sustainable development aspect in philanthropic responsibilities (Fig. 2.8).

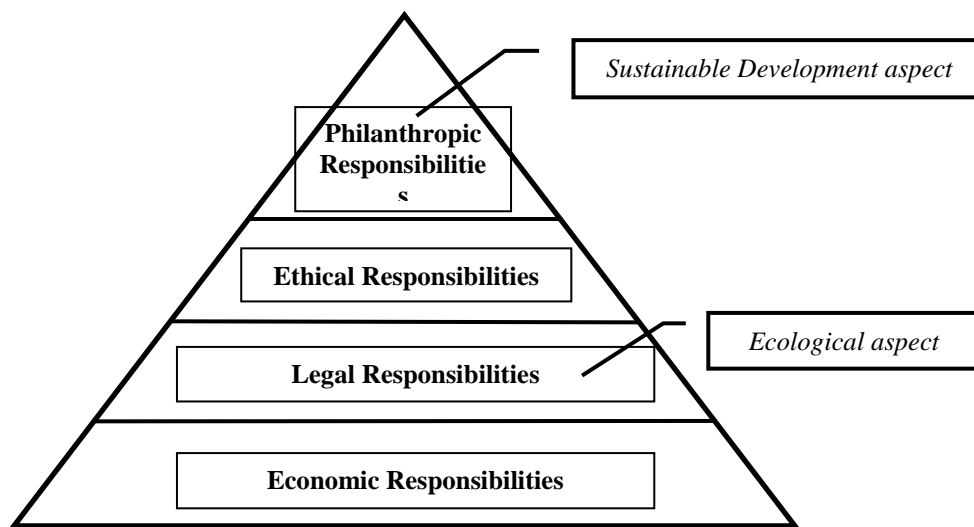


Figure 2.8 – Ecological and sustainable development aspects in Carroll’s pyramid of corporate social responsibility [Author’s adaptation based on 5]

Philanthropy is stated as the desire of the firm to promote the welfare of others. In the context of environmental corporate social responsibility, philanthropy could be seen through providing financial resources to implement activities to enhance environmental awareness and responses among publics [15]. Legal responsibilities means acting within the frames of legislation. One of the aspects of the liability is strict compliance to environmental standards.

Nowadays corporate social responsibility in general and corporate environmental responsibility in particular, take place, but these aspects are not the crucial ones for modern business strategies in Ukraine. Yet many companies consider corporate environmental

responsibility as legal but voluntary activities, which can help to increase competitiveness of the company and substantiate its reputation under the pressure of different stakeholders.

Following R. E. Freeman (1984), we define *stakeholder* as “any group or individual who can affect or is affected by the achievement of the firm's objectives” [8]. Regarding the corporate environmental responsibility, stakeholders are divided into internal and external ones. Shareholders and employees act as internal stakeholders. Key external stakeholders include suppliers / business partners, consumers, government agencies, local community, non-governmental organizations, media, and international organizations [11].

Stakeholder theory implies that since all stakeholders are legitimate partners in a business, a business firm must consider the impact of its actions on all stakeholder groups. Including the planet as a stakeholder in this framework implies that business firms need to be accountable for environmental damage. The stakeholder approach to corporate environmentalism involves some degree of recognition of the importance of environmental issues, as well as efforts to develop strategies for stakeholder integration [1].

Stakeholders can affect the company and ask it for environmental responsibility. Business reputation will depend on the response. Company’s reputation is a key factor for competitiveness on the market. On the way to sustainability corporate reputation should consider the impact on the environment and implementation of environmental responsibility.

Moreover, companies should start to recognize the environment as a competitive opportunity but not as an annoying cost or a postponable threat [16]. In addition, competitive advantages from corporate environmental responsibility can be not only internal, but can become external (social legitimacy, transparency and cooperation) (Fig. 2.9).

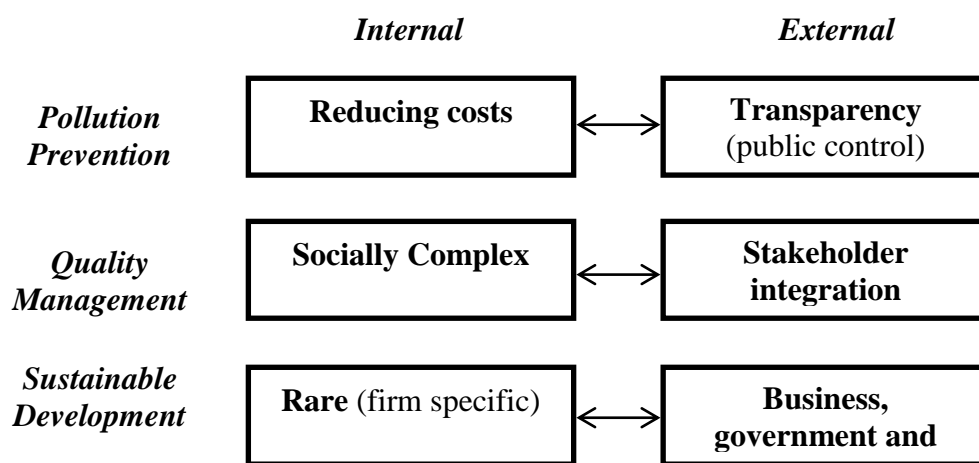


Figure 2.9 – Business strategies and sustained competitive advantages

[Author’s adaptation based on 10; 18]

A pollution-prevention strategy seeks to reduce emissions using continuous-improvement methods focused on well-defined environmental objectives rather than relying on expensive "end-of-pipe" capital investments to control emissions. As a result of such an approach the company will reduce costs, and that will form its competitive advantages [10]. This approach is directly related to fulfilling environmental obligations, including those in frames of environmental legislation. In this case business transparency also arises.

While applying a quality-management strategy, taking environmental component into account, an increase in market power can be a competitive advantage for the company. In this case, an opinion of potential customers and other stakeholders is important, and they are to be included into the strategic decision-making process.

A sustainable-development strategy is fasted by a strong sense of social and environmental purpose, which provides the backdrop for the firm's corporate and competitive strategies. Sustainable development thus implies technology cooperation, that is, working with host governments and businesses to build appropriate infrastructure, develop human resources, and nurture competitiveness [10; 17].

According to F. Szekely (2005), "sustainability is about building a society in which a proper balance is created between economic, social and ecological aims". Thus, companies should focus on all aspects of sustainability – economic, environmental and social. A company that embarks on the path of sustainable development needs to sustain and expand economic growth, shareholder value, prestige, corporate reputation, customer relationships, and the quality of products and services as well as adopt and pursue ethical business practices, create sustainable jobs, build value for all the company's stakeholders and attend to the needs of the underserved [20]. It is about minimizing environmental burden on development and growth of the company [10]. Thus, corporate environmental responsibility should be not simply an attribute that provides positive image at the domestic or international market, competitive advantage or customer loyalty, but should become a life philosophy for everyone [9]. In this case the firm acquires long-term competitive advantages in the form of comprehensive cooperation (between business, community and the government) as well as technological cooperation.

As a result, the firm gets positive public reputation and image improvement, and growth in the value of intangible assets.

In addition, both the government and the society benefit from social environmental responsibility through solving the key environmental problems, through compliance to regulations and standards of the global economy taking environmental issues into account, and preserving public health etc.

Thus, on the path to sustainable development, corporate environmental responsibility has to become not just voluntary measures, but has to be supported and encouraged by the government [14].

According to a survey carried out in Germany, the main motives of a company to protect environment are the next ones [19]:

- 1) environmental / social responsibility (30.5%);
- 2) legislation / government regulation (22.5%);
- 3) guarantee for the viability of a business / risk prevention (12.1%);
- 4) image of the company (9.2%);
- 5) etc.

Thus, the role of the state regulation in pursuing environmental protection is high, and among one of the priorities in case of reaching sustainable development goals.

Nowadays humanity, facing environmental problems, has defined its way for a sustainable future. Corporate environmental responsibility as a part of corporate social responsibility can contribute to solving environmental problems and preventing possible ecological conflicts and catastrophes. Implementation of environmental responsibility in order to achieve sustainable development should be strategic decision that will affect the internal development of the company and the relationship between stakeholders, organizations and the government. Therefore, to reach sustainable development environmental responsibility should not be solitary cases of particular companies, but should be a life philosophy for the whole society, business firms and the government.

1. Banerjee S. B. Corporate environmentalism. The construct and its measurement. / Banerjee S. B. // *Journal of Business Research*. – 2002. Vol. 55. – pp. 177-191.

2. Bansal P. Why Companies Go Green: A Model of Ecological Responsiveness. / Bansal P., Roth K. // *The Academy of Management Journal*. – 2000. Vol. 43(4). – pp. 717-736.

3. Brundtland G. H. (1987). Our Common Future: Report of the World Commission on Environment and Development – Access mode: <http://www.un-documents.net/ocf-02.htm>.

4. Carroll A. B. A Three-Dimensional Conceptual Model of Corporate Performance / Carroll A. B. // *Academy of Management Review*. – 1979. Vol. 4(4). – pp. 497-505.

5. Carroll A. B. The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders / Carroll A. B. // *Business Horizons*. – 1991. Vol. 34(4). – pp. 39-48 – Access mode: <https://www.researchgate.net/publication/4883660>.

6. Commission of the European Communities (2001). Promoting a European Framework for Corporate Social Responsibilities, COM. 366 final. – Brussels.

7. Dahlsrud A. How corporate social responsibility is defined: an analysis of 37 definitions / Dahlsrud A. // *Corporate Social Responsibility and Environmental Management*. – 2008. Vol. 15. – pp. 1–13. – Access mode: <http://onlinelibrary.wiley.com/doi/10.1002/csr.132/pdf>.
8. Freeman R. E. *Strategic management: a stakeholder approach* / Freeman R. E. – Boston: Pitman Publishing, 1984.
9. Grishnova O.A. Ekologichny vektor socialnoy vidpovidalnosti / Grishnova O.A., Dumanska V.P. // *Ekonomyka i upravlyenye*. – 2011. – № 3. – pp. 32-41.
10. Hart S. L. A natural resource-based view of the firm / Hart S. L. // *Academy of Management Review*. – 1995. Vol. 20, pp. 986-1014 – Access mode: <http://www.stuartlhart.com/sites/stuartlhart.com/files/NaturalResourceBasedView.pdf>.
11. He M. Sustainable development and corporate environmental responsibility: A comparative study of Chinese and multinational corporations / He M., Chen J. // *3rd IEEE Conference on Industrial Electronics and Applications*. – 2008. – pp. 1674-1679.
12. He M. Sustainable Development and Corporate Environmental Responsibility: Evidence from Chinese Corporations / He M., Chen J. // *Journal of Agricultural and Environmental Ethics*. – 2009. Vol. 22. – pp. 323–339.
13. Huckle G. (1995). *Environmental Responsibility and Profitability in the Industrial and Mining sector: University of Witwatersrand*.
14. Les Tien-Shang Lee *The pivotal roles of corporate environment responsibility* / Les Tien-Shang Lee // *Industrial Management & Data Systems*. – 2012. Vol. 112. Iss: 3. – pp. 466-483.
15. Nik Ramli N. A. R. Environmental Corporate Social Responsibility (ECSR): Exploring its Influence on Customer Loyalty / Nik Ramli N. A. R. et al. // *Procedia Economics and Finance*. – 2015. Vol. 31. – pp. 705-713.
16. Porter M. E. Toward a new conception of the environment-competitiveness relationship / Porter M. E., Claas van der Linde // *Journal of Economic Perspectives*. – 1995. Vol. 9. – pp. 97-118.
17. Schmidheiny S. (1992). *Changing course*. Cambridge, MA: MIT Press.
18. Smolennikov D.O. / Smolennikov D.O. // *Rol ekologichnoy vidpovidalnosti biznesu na shlyaxu do stalogo rozvytku* / D. O. Smolennikov // *Visny`k Sumskogo derzhavnogo universytetu. Seriya Ekonomika*. — 2013. — № 4. — pp. 35-39.
19. Steger U. *The Greening of the board room: How German companies are dealing with environmental issues* / Steger U. // *Environmental strategies for industry: international perspectives on research needs and policy implications* (Fisher K. and Schot J. eds.). – Washington, DC: Island Press, 1993. – pp. 147-166.
20. Szekely F. Responsible leadership and corporate social responsibility: metrics for sustainable performance / Szekely F., Knirsch M. // *European Management Journal*. – 2005. Vol. 23 No. 6. – pp. 628-647.
21. World Business Council for Sustainable Development (1999). *Corporate Social Responsibility: Meeting Changing Expectations*. World Business Council for Sustainable Development. – Geneva.

PART 3 SCIENTIFIC AND APPLIED ISSUES OF SUSTAINABLE DEVELOPMENT IMPLEMENTATION

3.1 ECOLOGICAL MARKETING AS A TOOL FOR PROMOTING SUSTAINABLE BUSINESS IN ZONES OF ECOLOGICAL RISK

When the economy is being transferred to the market relations new mechanisms for organization and control of the natural resource use (based upon the knowledge of economic and other laws) appear. Only new economic and ecological approaches to the economic management can reduce negative anthropogenic influence on the environment and get rid of destructive effects in the zones of ecological risk. That is why the main aspect of the problem of ecological risk zones is mobilization of reserves and raising effectiveness of the use of all kinds of resources (material, labor, financial, scientific). The paper presents theoretical aspects of economic stabilization in zones of ecological risk under conditions of transforming economy.

The key economic factors and regulators, that can help to pick out and to use effectively all kinds of resources in zones of ecological risk, may be defined as follows:

- 1) tax benefits;
- 2) credit benefits;
- 3) privatization and renting;
- 4) differential payments for use of natural resources, pollution and services;
- 5) formation of prices for ecologically pure products or ecologically pure technologies;
- 6) system of ecological insurance;
- 7) auctioning ecological goods and services;
- 8) creation of small and medium businesses;
- 9) system of ecological deposits;
- 10) system of economic benefits for attracting foreign capital;
- 11) legislative basis for economic and ecological relations;
- 12) tenders;
- 13) creation and use of ecological funds.

All these applications should be realised into life through the system of agreements. The system of contracting relations between the business and the regional control authorities gives the last the possibility of influencing on the structure of productive force development in the area, at

the same time creating the most favorable conditions for the development of the priority and effective trends of business in this specific area.

We define sustainable business as a business that meets the following requirements:

- it must be ecologically secure and ecologically compatible;
- it must be profitable;
- it must have effective management based on ecological marketing;
- it must be transparent and clear for public.

Ecological marketing may be viewed as an effective tool for promotion of sustainable business. In this sense, we suggest to view ecological marketing as a system of its five concepts [2, p. 400]:

Ecological marketing I (“ecologically pure” marketing) – marketing of the traditional goods and services (traditional marketing) designed and implemented taking into account existing environment quality standards and pollution regulations as key factors of an external marketing environment. In this case the goal of marketing is defined as satisfaction of common needs and demands by means of such an exchange that meets the requirements of existing environmental legislation. As an example of such marketing, one can consider the marketing that satisfies requirements of the Business Charter for Sustainable Development, adopted by the International Chamber of Commerce at the World Industry Conference on Environmental Management in 1991. The following marketing principles have direct relation to with ecological marketing I:

- Products and services. To develop and provide products or services that have no undue environmental impact and are safe for their intended use, that are efficient in their consumption of energy and natural resources, and that can be recycled, reused, or disposed of safely.
- Precautionary approach. To modify production, marketing of products or services, or the conduct of activities consistent with scientific and technical approaches, to prevent serious or irreversible environmental degradation.

Ecological marketing II (marketing of ecological goods and services) – a specific type of traditional marketing, caused by appearance of ecological needs and demands being the result of environmental deterioration and the rise of ecological consciousness. A core of this marketing concept is formed by such concepts as “ecological need”, “ecological demand”, “ecological goods”, and “ecological services”. This marketing concept differs significantly from the previous one: specific (ecological) goods and services appear on the market and a producer must first of all direct his production and marketing activities on satisfaction of ecological needs and demands. It is clear that ecological marketing II itself must be “ecologically pure”, i.e., the ecological

marketing II inherit all features of ecological marketing I. Extended notion of “ecological safety demand” is a very important point for this concept. It is the highest ecological demand which requires protection of the vital ecological interests, first of all protection of human rights in pure, healthy and favorable for living environment. As an interesting aspect of ecological marketing II, one can consider the study of mechanisms forming ecological demands and its dependence from levels of socio-economic development of the regions (states, macro-, meso- and micro-regions).

Ecological marketing III (marketing of natural resources and conditions) – a corporative type of ecological marketing which has to be designed and implemented on behalf of local and national governments, who are the legal owners of natural resources located in those regions and states. As a commodity, we define here natural resources and conditions which may have real and potential commercial significance. We name this marketing “ecological” because all natural resources come to be material components of different spatial levels of ecosystems, and removal or breach of them inevitably cause changes in ecosystems and environment. Local governments as the agents of ecological marketing III are interested in ecologically balanced and wise promotion of local natural resources to consumers – mining companies, land users, tourist firms etc. The final goal of ecological marketing III consists of the process of obtaining a corporative profit and its use for promotion of sustainable development of the region. As an interesting example of such marketing we suggest for consideration a marketing of environmental quotes (certificates) on emission of pollutants. Pollution quotes use to be issued by regional or local governments for certain territories (so-called “Bubble Policy”) to fix the level of possible (permitted) pollution for specific pollutant. Furthermore, these quotes may be considered as a commodity or a specific “ecological resource” in the regional markets of natural resources.

For instance, in USA the Clean Air Act allows the sources of pollution to accumulate credits for keeping air pollution emissions within the limits and to sell surplus pollution credits. In particular, this is a powerful incentive to reduce sulphur dioxide emissions; emissions produced by burning of fossil fuels that contribute to the formation of acid rains. In 1991, the Chicago Board of Trade voted for creation of world’s first exchange in pollution credits.

Ecological marketing IV (marketing of environmental protection and biodiversity conservation) – non-commercial type of marketing aimed at environmental protection and biodiversity conservation as well as at rehabilitation of destroyed ecosystems or their components. The agents of this marketing are: national, regional and local governments, public organizations, political parties and public movements. In this case, we define ecological objects (unique and valuable ecosystems, rare species of flora and fauna, ecologically vulnerable natural complexes and territories) as a commodity that needs protection, restoration and preservation.

Potential sponsors or donors, who can fund the corresponding nature preservation programs and project, represent the marketplace here. The organizational structure of ecological marketing IV can be divided into local, regional, national, and global. In some cases it can be profitable, for instance in the case when restored or protected ecological object is interesting for ecological tourism (national parks, nature reserves, unique nature conservation areas, etc.). In that case all profits they usually use for rehabilitation activities and restoration of ecosystems suffering from tourists.

Ecological marketing V (marketing of ecological knowledge and technologies) – a type of marketing ideas [1, p. 704] related, very close, to marketing concepts I-IV, because it provides necessary ecological know-how for marketing activities (in a broad sense meaning, including organization of scientific researches aimed at obtaining new ecological knowledge, invention of ecologically safe technologies, analysis and monitoring of ecological/environmental legislation, ecological expertise, auditing and consulting).

Agents of ecological marketing V are: research institutions, universities, firms specialized on elaboration of ecological know-how, individuals (scientists, experts, inventors, etc.). In that case an intellectual product – research programs, technologies, projects of nature preservation, ecological expertise and prognoses, curricula and teaching materials – stands for a commodity. The marketplace of ecological marketing V is being formed by agents of ecological marketing I-IV (businessmen, national and local governments, public organizations and movements, political parties, universities and individuals).

Let's have a more close look at the case study "Promotion of sustainable business in the coastal region of Ukraine". An inventory of biodiversity of the coastal region of Ukraine was done over the course of the project initiated by the Institute of Market Problems and Economic-Ecological Studies (Odessa, Ukraine). We faced big problems while solving this task.

Unlike wetland species structure, which is studied rather well (a detailed description of species of flora and fauna in Ukrainian coastal zone under protection was published and has got an international recognition), the geographic borders of the wetlands and delta-liman sub-basins (there are more than 60 such ecosystems defined in Ukrainian coastal zone with total area approx. 600 thousand hectares) are not still defined precisely and are delineated on the maps in a very fuzzy and uncertain manner.

Therefore, we tried to collect and classify, according to administrative units, all available cartographic materials on wetlands of Ukrainian coastal zone, in first turn having the ecological risk status:

1. Odessa oblast: Lake of Kugurlui, Lake of Kartal, Kiliyski arm of Danube Delta, Lake

of Sasyk, Lakes system of Shagany-Alibei-Burnas, Dniestr-Turunchuk wetland area, Northern coast of Dniestr Liman, Western coast of Tiligulsky Liman

2. Nikolaev oblast: Eastern coast of Tiligulsky Liman

3. Kherson oblast: Lower Dniepr, Tendrovski Bay, Yagorlytski Bay, Karkinitski Bay, Dzharylgach Bay, Eastern part of Sivash Lagoon

4. Autonomous Republic of Crimea: Central part of Sivash Lagoon

5. Zaporozhie oblast: Molochni Liman, Obitochnaya Peninsula and Obitochni Bay, Lower Berda River, Berdyansk Peninsula and Berdyanski Bay

6. Donetsk oblast: Belosarayskaya Peninsula and Belosarayski Bay, Krivaya Peninsula and Krivoy Bay

There is a legal base for sustainable business promotion in coastal region of Ukraine. The collected study of the completed and ongoing projects on problems of sustainable development in coastal region of Ukraine was made. For that purpose a set of international programs, projects, conventions and initiatives have been studied through the goals of the project:

– ICZM – Conception of Integrated Coastal Zone Management (in the parts of National Report of Ukraine prepared for GEF Black Sea Environmental Program, 1998).

– Biodiversity Convention, 1992 (in the parts of projects focused on coastal zone of Ukraine).

– Ramsar Convention, 1971 – Convention on wetlands protection (in the parts concerning the coastal areas of Ukraine).

– Bucharest Convention, 1992 – Convention on protection of the Black Sea from pollution (in the parts of projects designed for coastal areas of Ukraine).

– GEP-BSEP, 1993 – Program on environmental management and protection of the Black Sea (in the parts of projects designed for Ukraine).

Besides these, a set of existing national, regional and local programs aimed at study of land use and environmental problems in coastal zone of Ukraine was searched to understand research priorities and achieved results in that region:

– State Program of Socio-Economic Development of Ukrainian Black Sea Region, 1995–1997.

– Regional programs on socio-economic development of Ukrainian coastal oblasts (Odessa, Nikolaev, Kherson) and Autonomous Republic of Crimea (ARC).

– Program of socio-economic development of Ukrainian Danube Space (southern part of Odessa oblast), 1999.

- Programs on development of resorts and recreational zones of Large Odessa, Southern Coast of Crimea and Azov Sea Coast of Ukraine.
- Municipal program of sustainable development of Odessa City up to 2010.
- Tacis Program “Lower Danube Lakes, Ukraine: Sustainable Restoration and Protection of Habitats and Ecosystems”.
- Local governments’ programs and plans for preservation of natural environment and biodiversity conservation in areas of the case studies.

The following types of small- and medium-sized businesses were defined as sustainable ones for the zones of ecological risk in the coastal region of Ukraine [3, p. 357–374]:

- organic farming with the emphasis on irrigated agriculture;
- organic aquaculture with the emphasis on cultivation of endemic estuarial species;
- ecological tourism;
- sport hunting and fishing;
- yachting, surfing and boating;
- recreational activities with the emphasis on sea and climatic health resorts;
- recreational infrastructure (hotels, motels, parkings, etc.);
- drinking water production and supply;
- public transportation in resort areas;
- traditional using of natural resources within existing estuarial ecosystems.

In order to test and identify the economic-ecological efficiency of these businesses, some pilot-projects have been arranged in Odessa oblast (region).

In the market economy the system of the concessional taxation allows the commodity producers to forecast the results of business and to guarantee the long-term investment projects. The aim is to stimulate economically the development of the productive forces, the production of ecologically pure products and to guarantee the standard level of life in the zones of ecological risk. A special attention in the system of general taxation should be paid to ecological taxes, which must be an additional capability of the effective usage of a financial mechanism when resolving ecological problems. Differentiation of tax rates according to the types of natural resources stimulates their saving, complex processing of raw materials, utilization of waste and secondary raw materials, manufacture and use alternative raw materials.

The tax leve of fiscal policy can be a mechanism of the extra budget formation to fund the use of natural resources, based on two types of taxation: the natural resources consumption tax and the taxation on the quality of environment. The taxation of the resource conservation quality

is of some interest under the conditions of weakening of the zones of ecological risk: water, air, minerals and forests. The advantage of the proposed system is that it moves the center that regulates the load directly into the sphere of consumption, and tightly binds the consumer with the producer within the ready money circulation.

So, the local authorities, on the one hand, get the lever of influence on the investments in the field of the nature conservancy, and on the other hand, they get the proper budget and money that can be used for special financing of those measures.

Working out and introduction of environmental insurance in zones of ecological risk are of special interest. The insurance plays an important role in solving the problem of compensation for ecological damage.

So, environmental risk insurance should consider measures to provide compensation for damages and losses, to economic objects, natural resources drawn by the population that are the results of environmental emergency situations. The environmental liability insurance for any environmental violations is also important.

Effectiveness of economic lever much depends on legal guarantees of economic and ecological relations within the society. The zones of ecological risks are of international origin, and cutting down on their consequences cannot be resolved by only use of standards of state and civil law. International consequences of the zones of ecological risk should be dealt with from the viewpoint of the responsibility within the existing international law.

The monitoring of environment, if it is based on a geoinformational system to be created, will provide an opportunity to analyze (on the basis of reliable scientific data) the current status of natural resources usage in the area; to work out, considering specific natural and climatic geographical features of the region, the system of ecological restrictions as to the territory and ecological systems, and also to work out the system of differentiation of the privilege tax with respect to (radioactive) pollution [4, p. 235–247]. The implementation of the mentioned above mechanism is effective if it is based on a new geoinformation technology: geoinformational system should provide the automation of the operational subject mapping with elements of spatial analysis and zoning. The use of geoecological database parameters may be the basis of the regional geoecological monitoring aimed at the control and optimization of resource requirements for measures related with consequences of ecological risk zones.

In a market economy, every business entity is focused on economic growth, always working on a strategy of investment activity as a prerequisite for achieving long-term goals. This is quite justified and fair, as the level of development of an enterprise, in particular, and the economy, in general, is largely characterized by the volume and shape of investment programs. In

turn, the success of companies that carry out investment activities depends on how the system of selection of investment projects (ISP) is organized. First of all, a problem of selection criteria for project efficiency estimation must be solved. Thus, it is necessary to use not only the methods of quantification (estimation of future cash flows, the payback period of the project and other factors) but also to take into account factors that are qualitative by nature.

In modern conditions an accurate risk assessment in decision-making is necessary. Responsibility for the decision rests on the shoulders of modern leaders. They often have to work under new conditions and situations of high risk, contradictions and permanent unexpected changes. Therefore, it is very important to determine risk assessment techniques, to assess economic and environmental risks as close as possible to the realities of the Ukrainian economy.

The risk management process is associated with decision-making and requires adherence to certain principles:

1. Teamworkness is that all the steps in the risk management process should be carried out using the methods of teamwork, because individualism of technical workers and administrative personnel is a serious obstacle for dissemination of information regarding the possible future negative situations and consequences. Hence, there is indeed a need for cooperation of efforts, talents, skills and knowledge.

2. Informativeness is that the possession of information about possible incidents during the project should not be associated with personal power. Leaders of the organization must inform each worker on possible risks.

Meanwhile the staff should identify current and possible problems, i.e., it is necessary to ensure the free flow of information between all levels of management. Discussion of future developments in anticipation of the worst-case scenario can effectively identify potential problems and implementation of the project prior to their occurrence, adopt a strategy that increases the likelihood of a favorable outcome.

3. Risk management integration into the management system of the project through the improvement of the risk management daily action to prevent crisis situations. Timely, consistent and accurate use of risk management technology provides an orderly environment decision-making and efficient use of resources.

4. Documentation principle. All aspects of risk management must be registered: all information is stored in the form of document register templates. It creates a database of risks, which is the basis for further actions.

Economic and environmental risks should be taken into account when considering ecological marketing.

The current marketing activities become universal, exerting a powerful influence on theoretical approaches to environmental management and protection of the environment. Ecological marketing contributes to the development of basic and applied research, the creation, at the intersection of disciplines, a special branch of scientific knowledge about the properties and laws of market dynamics, principles and practices of wildlife to adapt to changing market conditions.

The combination of the material needs of society and high quality of the natural environment is a controversial requirement, and so ecological marketing should include the possibility of resolving conflicts that arise in the process of production and economic activity.

Usually the subject of ecological marketing is a state that, in this matter, delegates the responsibility and authority to regional and local governments. Thus, the latter appear to be the subjects of environmental management and, therefore, ecological marketing.

Ecological marketing system is entirely based on the knowledge of consumer demand and expected changes in the shortest possible time, which puts the production of resource commodities in functional dependence to consumer demand and the need to protect the environment. Natural resource is a commodity which implementation, with the help of ecological marketing, foresees a compromise between producers and consumers.

One needs to respond quickly to changing market conditions, to maneuver production and other enterprise resources (using new technologies and methods of cleaning and processing natural resources, waste management, etc.), to use ecological marketing to improve the efficiency of industrial and commercial works. Ecological marketing determines the further development and improvement of the variety of control systems including such modern methods as programming and forecasting, without which it is impossible to study existing and potential customer demand for products and services, consumption of natural resources and environmental needs of society, to determine the perspectives on the development of environmental programs.

Basic mechanisms to ensure the development of effective business strategies are formed as a result of marketing economic and environmental studies.

Obviously, only the scientific approach can ensure the optimization of expenses for reproduction and preservation of the natural environment, the appropriateness of economic activity; and this is the basis for ecological marketing research.

Customers, in the process of comparison and selection, prefer the commodity in which the ratio of useful effect (taking into account environmental components to the cost of the acquisition and use of certain beneficial effect) is maximal, comparing to other similar products (eco-friendly goods and services).

But to determine whether the goods correspond this condition, one need to compare it with other goods provided on the market.

We should not neglect even the smallest possibility of increasing the competitiveness of the goods, but we must remember that the greatest effect depends on the improvement of environmental parameters, most of all. The essence of such an improvement is the maximum satisfaction of the environmental needs of the customer. The costs for the customer, who purchases and uses environmentally friendly products and services, are determined by a set of economic and environmental (costly determined) product parameters. Magnitude of the economic and environmental parameters is determined by a price of a product, its costs for transportation, installation, staff training, management, repair, maintenance, taxes, insurance premiums, environmental costs, compliance with environmental standards of both goods and the environment, etc. The magnitude of the price is also affected by the market: the ratio of supply and demand for this type of product; consumer properties. One of the immediate consequences of pollution problems is creation of economically favorable conditions for public consumption of environmentally friendly products. Affordability of prices should be understood under economically viable conditions for human consumption and the amount of the necessary range of environmentally friendly products. However, in the transition to the market economy, decline in government subsidies for essential food products, price formed in commercial structures should reflect the manufacturer's costs and provide at least average rate of profit.

An important factor contributing to the deepening of negative phenomena in production and business activities of enterprises is the imperfection of pricing mechanism. The main elements of ecological marketing are prices and pricing policy.

After all, the prices for resource products (which include the price of damage from seizures and pollution of natural resources, as well as changes in the quality characteristics of related resources associated with the main resource, etc.), for environmentally friendly products, technologies and services depend on the results achieved.

Commercial and pricing policy has long-term and sometimes decisive influence on all industrial and economic activities of an enterprise, effectiveness of the economic and environmental activities and supply of environmentally friendly products in the region. Pricing policy of ecological marketing means that: one must fix the prices on the resource products (or environmentally friendly products and technologies, services, etc.) and change them depending on the situation on the market to acquire a certain market share and gain planned amount of profit, to conserve natural resources (using alternatives or substitutes), to encourage waste recycling and reuse.

The emergence of ecological marketing indicates a shift in business philosophy, a change of emphasis in the main economic activities.

1. Kotler F. (1996), Principles of Marketing, Moscow : Rostinter.
2. Sadchenko E. V. (2002), Principles and concepts of ecological marketing, Odessa : Astroprint.
3. Sadchenko E. V. (2010), Tools of environmental marketing in marine environmental management system, Odessa : IPREEI NAS.
4. Sadchenko O. V., Nichitailova N. S. (2011), Theoretical and methodological foundations of environmental marketing strategy in terms of sustainable development, Simferopol : VD "ARIAL".

3.2 OPPORTUNITIES FOR SOCIAL AND ECONOMIC DEVELOPMENT OF DISTRICTS FOR PLANNING IN REPUBLIC OF BULGARIA

Despite the fact that the European Union represents a prosperous economic community as a whole, there are differences in the condition and development of the over 250 regions in the Union. It is exactly the elimination of these discrepancies and giving the citizens of the EU equal possibilities for access to quality education and training, for getting of an appropriate job, for an ecologically clean environment, for ensuring with a favorable business environment that constitute the main goal of regional politics or as it is also known policy for rapprochement or cohesion of policy.

At the current moment the social-economic development of the EU faces a series of challenges, some of the most important are as following:

- The different consequences in the separate regions because of the changing climate on the territory of the EU and the neighboring countries, more specifically concerning the stable territorial development;
- The rising price of energy, the energy inefficiency and the unequal distribution of the possibilities presented by new forms of energy production;
- The accelerated integration of our regions, in particular the boundary regions, in the frame of the global economic competition and, at the same time, the rising interdependency of the countries and regions around the world;
- The influence of the enlargement of the EU upon the economic, social and territorial rapprochement, more specifically concerning the integration of Eastern Europe and the new member states and their regions concerning the transport and energy infrastructure;

– The overexploitation of the ecological and cultural resources and the decreasing of biological diversity, mainly as a consequence of the enlarging unstable development, as well as, the depopulation of the remote regions;

– The effects on the territory from the demographic changes (especially the aging of the population), as well as the inter and outer migration on the labor markets, the offering of services of mutual interest, the housing market, the development of the structure of the settlements and on the way people live together in our towns and regions.

In respond to these challenges we think that territorial rapprochement is an obligatory condition for stable economic development and for the implementation into practice of the social and economic rapprochement, which represent the European social model. In this context we acknowledge as a main task and an act of solidarity the creation of prerequisites in all regions for offering of equal conditions for citizens and possibilities for the development of entrepreneurial initiative. In this way the regional identity and potential, the different needs and characteristics of the regions, towns and villages of Europe acquire a more significant importance in the policy of territorial rapprochement and the other policies for territorial development.

As a full member of the EU from the beginning of 2007 this process in Bulgaria expresses itself in the coming together of the economical development of the territorial units, countries and regions through predetermined regions for planning and intervention.

In the context of the above-mentioned, the objective of the present work is to determine the condition of these regions in a socioeconomic aspect by defining of the problems and the possible solutions for each separate region.

The following research targets have been made on this basis: 1) analysis of the socioeconomic tendencies in the condition of the regions for planning in our country; 2) evaluation of the problems facing development; 3) analysis and evaluation of the instruments for problems solving, the main focus being on OP „Regional Development” and the National Plan for Development of Rural Regions 2007 – 2013.

For the accomplishment of the above-mentioned tasks the following instruments are used: formation of statistical rows; induction and deduction.

The Regional policy of the European Union (EU) is based on the principle of solidarity in so far as part of the budget of the Union is directed towards less developed regions and social groups. For its implementation the EU allocates about one third of its budget.

In Article 158 of the Pact for the Formation of the European Community is stated that in order to strengthen its economic and social rapprochement the Community will strive to lessen the differences between the levels of development of the different regions and the backwardness

of the most underprivileged regions and districts, including rural areas. In Article 159 is stated that these actions will be assisted by:

- Structural Funds (SF),
- The European Investment Bank (EIB) and
- Other existing financial instruments.

The Structural Funds (SF) are the main instrument of the European Union for implementing its Regional Policy. The name Structural Funds is a summarization for the different financial instruments created during different time periods. For the period 2000-2006 these are:

- European regional development fund (ERDF);
- European Social Fund (ESF);
- European Agricultural Guidance and Guarantee Fund (EAGGF);
- Financial Instrument for Fisheries Guidance (FIFG).

The funds allocated for structural measures are about 213 billion euro (or one third from the overall Community budget for 2000 – 2006. From these funds 18 billion euro are allocated to the Cohesion fund for support of measures for building of transport and environmental infrastructure in the member states with GDP lower than 90 % of the EU average(at that time Greece, EIRE, Spain and Portugal).

For the present programming period 2007 – 2013 the European Commission suggested a reform in its cohesion policy and the Structural funds regulations.

New regulations were adopted and in accordance with these for the 2007 – 2013 period the Structural funds will be:

1. the European fund for regional development (ERDF);
2. the European social fund (ESF)/

The primary aim of the European Union policy for economic and social cohesion is to limit the differences in the economic and social development of the regions of Europe and to promote structural changes for developments which will lead to economic and social growth. In the frame of this main objective for each separate period the Community determines several in number specific objectives which are common for the EU. For the period 2000–2006 the cohesion policy is focused on three main objectives, the implementation of which is assisted by structural funds and the Cohesion fund of the EU:

Objective 1 – Helping regions whose development is lagging behind to catch up – 70 % of the whole financing is allocated to helping the so called regions of Objective 1, where the gross domestic product (GDP) is below 75 % of the Community average;

Objective 2 – Supporting economic and social conversion in industrial, rural, urban or fisheries dependent areas facing structural difficulties – 11,5 % of the funds are directed towards these regions;

Objective 3 – Modernising systems of training and promoting employment. Measures financed by Objective 3 cover the whole Union except for the Objective 1 regions, where measures for training and employment are included in the catch-up programmes.

For the present programming period 2007 – 2013 the Cohesion policy of the EU is focused on the following priority objectives:

Objective 1 “Convergence” – the poorest Member States and regions are eligible under this objective. Under the objective measures for promotion of quality of investment will be supported, as well as development of innovations and society based on knowledge, adaptation towards economic and social changes, environmental protection and administrative efficiency of the institutions. To finance the actions for its accomplishment the resources have been provided from the the European fund for regional development (ERDF), the European social fund (ESF) and the Cohesion Fund which will increase its contribution to stable development. Objective 1 also includes the strengthening of the institutional capacity and effectiveness of the state administration and the capacity to manage the Structural Funds and the Cohesion Fund. We cannot point out any significant difference concerning the criteria for permission of the regions for financing from the Structural Funds and the Cohesion Fund. We must point out, however, that our country is optional for financing by it.

Objective 2: “Regional Competitiveness and Employment”. In this perimeter of action regions outside the group of the least developed fall. Its accomplishment is connected to increasing competitiveness of the regions and employment by foreseeing of the economical and social changes, including those connected to opening the markets, through innovations and promoting a society based on knowledge, entrepreneurship, protection and improvement of the environment, adaptation of workers and the business, as well as, the development of labour markets. For its realization resources by ERDF and ESF have been provided.

Objective 3: “European Territorial Cooperation”. The Objective tries to strengthen cross-border cooperation through mutual local initiatives on a transnational level, through actions leading to integrated territorial development connected to the priorities of the Union and through networks and the sharing of experience on an appropriate territorial level.

The only financing is from the ERDF. Standing on the principle of solidarity between the people living in the Union and the idea for a united economic and social progress, the member states of the EU carry out a European regional policy financed by the EU Funds. In this way the

Union influences the planning of development on a regional and local level by observing the following main principles:

– The principle of partnership – the actions of the Union supplement and encourage national activities. There must be the result of close cooperation and consultation between European Commission and the state. The nationally determined organs on a central and local level and the socioeconomic partners must participate in this process.

– The principle of coordination – the European Commission and the state guarantee the coordination and the non-admission of overlapping of financing from the different funds and the support from other financial instruments.

– The principle of decentralization – provides for the delegation of rights for the management of the Structural Funds and the Cohesion Fund from the EC to the state;

– The principle of supplementation – the resources from the EU must supplement the local sources of financing, which level is determined by the state.

For the purposes of planning, programming, management, resource supply, monitoring and evaluation of the regional development in our country there have been differentiated regions separated in two levels in correspondence to the requirements of the common classification of the territorial units for statistical purposes adopted in the European Union. The regions comprising level 1 have the following territory:

1. Region “North and South-Eastern Bulgaria”, which includes the North-western region, the North-central region, the North-eastern region and the South-eastern region

2. Region “South-western and South-central Bulgaria, which includes the South-western and the South-central regions

The regions forming level 2 include:

1. The North western region is formed by the provinces Vidin, Vratsa, Montana, Pleven and Lovech.

2. The North Central region includes the provinces of Veliko Tarnovo, Gabrovo, Ruse, Razgrad and Silistra.

3. The North Eastern region comprises the provinces of Varna, Targovishte, Shumen and Dobrich

4. The South Eastern planning region includes the provinces of Burgas, Sliven, Stara Zagora and Yambol

5. The South Western region includes the provinces of Blagoevgrad, Kyustendil, Pernik, Sofia province and Sofia-city.

6. The South Central region includes the provinces of Plovdiv, Pazardzhik, Smolyan, Kardzhali and Haskovo.

According to data from the national statistics and the Ministry of Regional Development and Public Works the planning regions in the chronology presented above have the following characteristics [1].

The North western region defined in accordance with the requirements of EU Regulation 1059 / 2003, is formed by the provinces Vidin, Vratsa, Montana, Pleven and Lovech. Its area encompasses 17% of the territory of the whole country and 13 % of the population live there. The unemployment rate is 12,5 % – higher than the country's average by 5 points. The provinces Vidin and Lovech are characterized by an extremely high level of unemployment. The highest rate of unemployment is in the province of Lovech – 12,8 thousand people, followed by Vratsa and Vidin, 9,3 and 9,1 thousand unemployed respectively. The lowest rate of unemployment, lower than the average of the country and the region, is in the provinces of Pleven and Montana.

All the provinces have a rate of employment under the average for the country. For the provinces of Pleven, Lovech and Montana it is over the region's average of 37,5 %.

The region's portion in the GNP as a whole for the country is about 9,5 %, which could be ascribed to the worsened production infrastructure formed in the transition period from the beginning of the 1990s.

The North Central region encompasses 13% of the territory of the whole country and includes the provinces of Veliko Tarnovo, Gabrovo, Ruse, Razgrad and Silistra. The population of the region is 12 % of the whole population of the country. The unemployment rate is 10.5 % and is higher than the average for the country. Similarly to the North Western region the employment rate is lower than the average for the country. Because of this the regions portion in the GNP as a whole for the country is about 13 %.

The North Eastern region comprises the provinces of Varna, Targovishte, Shumen and Dobrich and encompasses 13 % of the territory of the whole country. The population of the region is 12,9 % of the whole population of the country. In contrast to the above mentioned regions in North Bulgaria 68% of the land in the northeastern region is agricultural land.

The unemployment in the region is approximately 8 %, which is about 1 % above the average for the country. The rate of employment of the economically active population formed under these conditions is 54,2 %. The region's portion in the GNP as a whole for the country is about 14.5 %.

The South Eastern planning region is situated on 18 % of the territory of the country and encompasses 15% of the population.

The economical parameters of the region show approximately 6 % unemployment, which is one point lower than the average for the country. The explanation can be sought in the tourist character of the region, which presupposes a bigger involvement of the population in such activities. Also it possesses a serious industrial character of production, which gives it a share in the GNP of the country of 18,9 %.

The South Central region is the second in size and encompasses 20 % of the territory of the country. Here live 21,55 % of the population of the country. Administratively speaking it includes the provinces of Plovdiv, Pazardzhik, Smolyan, Kardzhali and Haskovo.

The economic structure of the region is predominantly agricultural in character with well developed tourism and forestry. According to its share in the GNP the region has 17 %. The unemployment rate is 9 %, which is approximately two points higher than the average for the country. The employment percentage of the economically active population is 52 % [2].

One of the best represented regions in social and economic respect is the South Western region. It encompasses 19 % of the territory of the country and 27 % of the population. The unemployment rate is 4,5 %, which is considerably lower than the average for the country. The employment coefficient is around 62 % which brings it near to the standards of the accepted in the member states of the EU Lisbon Strategy (65 – 70 %). The explanations for this fact can be sought for in several directions. In the first place here is situated the capital of Bulgaria, which in the past few years has become a serious source of work places and an attractive centre for the working force of the whole country. In the second place this is a region with considerable inflow of foreign investments, mainly in the light industry and services, which creates possibilities for employment. To support this we can point out that the region's share in the GNP is around 50 %.

The above mentioned characteristics of the planning regions in Bulgaria give us a reason to say that for the successful incorporation of our country in the united European economic and social sphere what is needed is a purposeful development of the regions in the context of the European regional policy.

From 2007 our country has acquired access to the Structural Funds and The Cohesion Fund of the Union, which presupposes a serious financial resource supposed to solve a significant part of the problems in spheres such as administrative, economic and road infrastructure, jobs, industrial infrastructure etc.

For this purpose Bulgaria has developed and received approval for seven operational programs, in which regional policy has found its place. One of the most secure in financial aspect programs is OP "Regional Development" and the National Strategic Plan for agricultural and rural development 2007–2013. The first program is focused on the urban agglomeration areas

while the second – on the problems of the rural regions in the country. This is due to the search for balance between the stimulation of the town industrial areas and the rural, mainly agricultural and tourist regions.

In the sphere of action of OP “Regional Development” lie five priority trends. The first is connected to stimulating stable urban development. It encompasses actions for the development of the social infrastructure and the housing policy in the urban areas, integration of infrastructural facilities and terrains with the aim of stimulating entrepreneurship and attracting new investments, improving living environment of the population and development of systems for sustainable, ecological and effective city transport.

Providing sustainable urban development cannot be achieved solely through investments in the main infrastructure. This is a much wider process which includes sustainable social development – from the point of view of educational, cultural, social and medical infrastructure. The common thing about all Bulgarian planning regions is that the social infrastructure is not adequately adapted to the present situation and the arising needs or it is in a very bad condition. The optimization and modernization of the social infrastructure will lead to the rise in the quality of life and it will help the improvement of human capital and the labor market in the regions so it will help fulfill the aims from Lisbon. The actions in this direction are important for the rising of the economic, social and cultural integration of the urban territories.

The actions stipulated for the construction and further development of the existing regional and local transport infrastructure are important for the development of urban areas. Here we must stress the necessity of achieving the European standards in this respect as the Bulgarian infrastructure is part of that of the Union. This will help further the full integration of the country in the EU.

Integral parts of the infrastructure are the informational and communicational networks. Their further development will provide the country with access to the new achievements in the developed countries and their more adequate integration in Bulgaria in all spheres of socioeconomic life.

In the scope of the program is also one of the serious problems facing not only Bulgarian regions but also those of the EU as a whole. These are the problems of energy efficiency and the incorporation of energy efficient practices in every day life and in industry. We can even determine them as priorities having in mind the dependency of Bulgarian households and enterprises on the import of energy resources. The future lies in economizing energy from traditional sources and the discovery and use of new ones – wind, solar energy, biomass etc.

One serious group of actions in the program is designed for stimulating tourism in urban areas. Our country is famous for its tourist cultural-historical potential but it must be presented to the world in a way which can make us an attractive destination. For this purpose there must be built infrastructure next to and around these tourist sites so as to make them accessible.

In the so far mentioned we cannot exhaust all the possibilities which the program for development of the urban areas in the region for planning in Bulgaria offers. From the presented information for the regions it becomes clear that a significant part of the population in them lives in settlements of a rural type. This forces the policy for development of the regions in our country to focus its attention to this population and its problems.

For this reason in 2007 started the implementation of National Strategic Plan for agricultural and rural development. It has focused its range of action to rising the competitiveness of the agricultural and forestry sector, nature protection and improving the environment, rising the quality of life in the rural areas and the variegation of the rural economy, as well as, stimulating the participation of the population of the rural areas in determining the problems and the search for their solving through the implementation of the proven as a good practice in the countries of the EU approach "Leader". The raising of the competitiveness of Bulgarian agricultural production is a serious problem in view of the strong pressure from the EU market. For its practical realization measures are stipulated for the stimulation of young and starting farmers for the development of business enterprises, helping existing and recognized producers, as well as, raising the quality of Bulgarian agricultural production. The risen competitiveness is a function of the realization of products with higher gross value. On the other hand this is a way of coping with the problem of unemployment amongst the active population in the rural regions.

One of the priorities of the European policy as a whole and focused not only on the regions is environment protection. This is the reason why stimuli have been provisioned for achieving criteria in this sphere. They are connected to the construction of sewer and water providing facilities and cleaning stations in settlements, processing human waste by new ecological methods and techniques etc.

As a whole the above mentioned actions will help raise the quality of life in the rural regions. For this purpose support is provided for the creation and development of microenterprises in the rural regions, the aim of which is the production of non-agricultural goods. This will help the creation of jobs for the population and the raising of the welfare of the regions as a whole. Apart from this an important priority of the program in this sphere is the stimulation of tourist activities through the renovation of the rural settlements from the point of view of infrastructure and accessibility to different services for the people.

The so far mentioned actions and initiatives are the subject to the principle of making decisions “from top downwards” because the problems have been defined on a national level and this the appropriate funding resources for their solving are distributed. There exists another approach which seems to work well in the European rural regions. This is the approach “Leader” where the mechanism is the other way round – “from bottom to top”, i. e. the problems are defined by representatives of a specific rural region and ways for their solving are determined. This creates a sense of participation amongst the local population.

The review of the social and economic development of the planning regions in Bulgaria shows that it is necessary to concentrate the efforts of the managerial policy on a central and local level, as well as, participation of the population in them for the improvement of their condition. Certain criteria have been created from the point of view of the principles of regional development in the EU which must be followed in Bulgaria as well. Furthermore after 2007 Bulgaria has received access to funding from the Structural Funds and the Cohesion fund which must guarantee financially the regional policy on a local level. Two of the main instruments in this direction – OP “Regional Development” and the National Strategic Plan for agricultural and rural development 2007–2013 have provisioned a group of actions, which search for a balance between the development of urban areas and the rural regions in the six planning regions. We can determine the speed of the process as slow so far, which forces the undertaking of actions for their speeding up and directing towards the most urgent problems (such as: infrastructure, creation of conditions for the development of entrepreneurship and attracting of investments, raising the quality of life and nature protection and accessibility for the population to the new technological achievements). Finding the right way for solving these problems will guaranty a respectable place for Bulgaria in the European family.

1. The statistic information – Access mode: <http://www.mrrb.government.bg>.
2. The National Statistic Institute – Access mode: <http://www.nsi.bg>.

3.3 ECONOMIC MECHANISMS OF ENVIRONMENTAL AND ECONOMIC SECURITY IN THE BLACK SEA REGION

The problems of balanced development of the Black Sea region are important and actual for Ukraine. This is predetermined by a number of factors. First, ecological situation today is critical in the region. Secondly, a high degree of physical depreciation of capital assets (including nature conservation) and a lack of investment in renewal create pre-conditions for intensification

of environmental problems. Thirdly, the situation becomes more complicated because of extensive character of management that has been formed by decades and a large number of energy- and resource intensive industries. The indicated factors result in a worsening health of population, social tension growth, the losses of gross domestic product and predetermine the necessity of nature conservation activities.

Until recently, the problems of economic security were under consideration by western experts. The analysis of economic security terminology was available only in foreign economic literature.

Contemporary studies of economic security problems in the scientific economic papers are related to the relevant aspects of the theory of industrial safety, that is a characteristic of the main conditions and factors generating threats to economy. The authors, working in these directions, pay special attention to clarifying the essence of the phenomenon by analysing factors and conditions, criteria of economic security, research of vulnerability of national economies, classification of economic impact of security threats, and mechanisms of their localization.

In general, it is possible to define three main approaches to economic security: through interests (national, state, public, etc.); through economic independence (development of economic policy free from outside influence) through stability/ instability (national economy, economic development, social and economic systems, etc.).

In the Strategy of the economic and social development of the Black Sea region for the period till 2015 year, there are determined important and actual problems for Ukraine which are related to stabilization and improvement of environment, establishment of a direct link between economic growth and environmental situation, introduction of the environmentally balanced system for sustainable use of natural resources.

All the factors mentioned predetermine the necessity to develop the system of effective ecological and economic instruments for different ecological and economic interests' coordination (at different levels and scales).

In this paper the Black Sea region is observed as an aggregate of industrial and economic subjects, and, in particular, industrial companies. This is specified by a number of reasons. First, industrial enterprises are the most actual subjects of use of nature, pertaining to national economy complex, because of productively technological features of their activity.

This causes a multitude of problems in using natural resources and minimizing negative impact on the environment. Secondly, industrial enterprises produce different consumer goods which can affect on human health.

According to the Law of Ukraine "About the priorities in the development of science and technology" from 11.07.2001, protection and development of the environment are named as principal directions for the development of science and technology. Eventually, economic crisis, social tension, lack of investment distract attention from problems of environmental conservation and renewal, and put off the final decision sine die. In this connection, there is a requirement for the improvement in the sphere of environmental protection that is a necessary pre-condition in the development of the Black Sea region.

At the same time, the question of integral estimation of nature protection activity is insufficiently investigated in the system of regional social and economic development. Therefore, the following questions are actual: 1) estimation of the level of activities in nature protection, 2) study of features and compliance with the laws of nature in nature protection activities in the development of the regions, 3) interdependence of processes of social-economic and environmental development.

Choosing regional level of nature protection activity research is related to the tendencies of decentralization, management regionalization by socio-economic and ecological processes that take place both in Ukraine and all over the world.

There are two approaches to the concept "ecological safety": 1) "a condition of safety" of the object from threats of the polluted natural objects, as "a state of safety" of the object, characterized by the absence of threats to the environment from this object; and 2) "the lack of inadmissible environmental risk associated with possible harm to nature".

The state ecological policy is a system of officially declared ecological goals and objects which are aimed at provision of ecological safety of the country and satisfaction of ecological needs of the society. The state ecological policy covers certain production and economic activity areas to coordinate economic and ecological processes in the field of environmental management. One of the means of environmental management in modern conditions is greening production which, by embodiment of technological, economic and administrative decisions, gives a chance for more efficient use of natural resources together with preservation of the environment. Thus, the system of environmental management offers effective methods that enable an organization to reduce its environmental impacts and uncrease its operating efficiency.

The purposes, principles and functional bases of environmental management are aimed at provision of processes of continuous improvement in all environmentally important aspects of the enterprise activities.

Eco-economic regulation gives the chance to provide due socially significant response of the subject of the management user of nature, i. e., to the negative changes in ecological factors

and neutralize their adverse impact on the environment. Eco-economic regulation provides influence of the manager on the object of management to ensure its dynamic balance and effective functioning of the environmental management system.

The purpose of the functioning of the economic and ecological regulation mechanism is to create favorable initial conditions that provide public with basic level of ecological safety from economic activity.

Legal, administrative, organizational, financial and economic tools, and instruments of management are the part of economic and ecological regulation mechanism by means of eco-economic information and instruments of social influence [3, p. 145–158].

Comparison of the components of the eco-economic regulation mechanism confirms the fact that in European countries there was created an effective mechanism of eco-economic regulation which provides an appropriate level of ecological safety of the subjects of management, and which renders assistance to economic growth. Therefore, the improvement of the mechanism of eco-economic regulation, which exists in Ukraine, should be carried out with the use of those approaches which embodiment is confirmed by the world practice of the environmental management.

The analysis of the impact of external factors shows that the following factors mostly affect the activity of the subjects of the environmental management: geographical arrangement, natural and resource potential, social, economic and ecological factors. The assessment of the environment during 2009–2012 confirmed the fact that development of industrial production is accompanied by negative impact on the environment. For example, these are enterprises which have essential impact on the quality of the ambient air in the region and distribute the electric power, gas and water, as well as enterprises of the processing industry, transportation and communication. But the major part of pollution emissions belongs to motor vehicle emissions. During this period, the increase in harmful emissions in atmosphere amounted to 4,8 %. At the same time, a low level of water security is common for the region. On the average, 35 % of fresh water is used for production needs, and 34 % – for household needs. Due to industrial activity, about 41 % of raw and insufficiently clear water comes to water consumers of the Black Sea coast. Due to the growth of the level of dangerous industrial wastes, increase of their concentration per 1 sq. km of the territory up to 0,68 tons is observed.

Nevertheless, the territory belongs to environmentally friendly ones; it is characterised by anthropogenous loads on the environment, irrational and unbalanced environmental management with low rates of natural resource utilization.

Thus, there is a negative growth dynamics of formation of hazardous toxic waste of an industrial origin which is a dangerous tendency as there are no specialized landfill sites for waste disposal and processing.

The results of the assessment of the efficiency of the eco-economic regulation mechanism at the industrial enterprises of the Black Sea region showed that existing approaches are not effective and don't meet modern social and economic requirements and environmental challenges. In particular, insufficient ecological standards and legal tools and instruments of social influence operate uneffectively. Administrative and organizational tools, as well as instruments of management are used insufficiently.

The conducted researches give the grounds to claim that the existing approaches don't stimulate the environmental management to introduce ecologically safe resource and energy conservation technologies for the purpose of minimizing negative impact on the environment. Using nature, people don't realize a degree of responsibility for possible negative consequences caused by their activities and don't wish to spend their own funds for nature protection actions. Such a situation is caused, to a great extent, by a lack of an effective financial system and economic regulators, stimulating municipalities and companies towards ecologically safe production activities and stable sources for nature conservation financing; by operation of imperfect monitoring system of payments to limit negative impact on the environment; by discrepancy in standards of environmental taxes and the real environmental harm; by inappropriate use of funds for environmental protection within state and local budgets.

For preventing negative consequences for the environment, which can be caused by functioning of industrial production, it is extremely necessary to settle eco-economic processes of industrial enterprises by means of effective eco-economic regulation mechanism.

Despite possible reduction of a number of industrial enterprises in future, the level of their negative influence on environment will increase.

The conducted research of effectiveness of the mechanism of economic and ecological regulation proved that it can't be just local and cover only natural operating areas (for example, in industrial production). The effective eco-economic regulation mechanism of environmental management in industrial production can be created on the basis of an integrated approach which considers intersectoral and interregional communications. Thus, it becomes an organic component of the mechanism which regulates functioning of the industries, which are economically and ecologically oriented. In other words, the advanced mechanism of economic and ecological regulation of the environmental management gives an opportunity to balance ecological and economic targets of the enterprise activity.

The financial and economic tools require the formation of the environmental fund system: environmental funds, local off-budget environmental funds in regions, internal environmental funds of the enterprises. The amount of contributions to internal environmental fund of the industrial enterprise can be defined depending on a class of its environmental safety. Net profit margin can be in the range from 0,34 % to 6,8 %. Assets of environmental fund can be used for financing environmental activities of the industrial enterprises, as well as for implementation of multi-purpose comprehensive programs in the field of green production and environmental management.

It is necessary to summarize and methodize existing criteria and information for the appropriate assessment of nature protection activities. The ecological situation in the region, the health of the population who is the main recipient of pollutants, efficiency of nature protection costs, levels of rationality in environmental management and ecological consciousness of the population have to be principal for the assessment.

In difficult economic situation, a lack of investments, social tension in the society the problem of environmental protection doesn't receive due attention and doesn't find a solution. For the definition of major factors which predetermine regional development and the state's in general, and for clarification of the place and value of the environmental factors and activities in this system for its protection, the factorial analysis of local development was carried out.

Recently, a tendency to environmental impact reduction, which is related, mainly, both to improvement of nature conservation activities, and to decline in industrial activities in many enterprises. The research showed one more negative tendency. Growth of economic development in the region is accompanied by environmental degradation and reduction of environmental conservation activities, which is inadmissible.

Investment processes in the environmental conservation are not properly coordinated with the features of the regional development, in particular, in regions with high anthropogenic pressures. Unstable standard and methodical basis of payment charges for pollution and natural resource use, which are shown to the enterprises as payments, is imperfect. The payment discipline of the agent of management in the nature conservation sphere is low. Mentioned factors reduce action of an existing economic legal mechanism of ensuring nature protection activities and reduce efficiency of nature conservation costs.

The factorial analysis of nature conservation activity in the regions showed that major factors of its level are as follows: 1) environmental security with resources of the ecological sphere and intensity of its impact, 2) a level of environmental awareness in the population, 3) a level of state regulation. Certain factors have to be considered at the development and

implementation of ecological programs, regulation of environmental protection activities for the purpose of increase of its efficiency.

The state policy, directed on support and activization of regional processes of environmental protection and greening of production (on the offered models for realization of nature conservation activity regulation), has to provide such actions as:

- determination of economic and ecological ability and expediency of greening of the enterprises – the main sources of pollution and environmental hazards;

- participation in financing of the nature conservation projects which are carried out at a certain management level on the basis of financial accounting at such enterprises (under a condition of payback of nature conservation projects); it will render assistance for activization of processes of greening, as well as for optimization of financing sources' structure;

- participation in organization and staff formation system of environmental management at the enterprises – the goals of the state and regional environmental programs;

- development of the incentives and sanction system for observance and violation of the requirements concerning quality of the environment for state bodies and local government;

- creation of analogs of "free economic zones" in the field of environmental protection to exercise progressive models of environmental regulation;

- creation of the bank of scientific and technical developments and projects in nature conservation with the description of their technical and economic characteristics for the purpose of improvement of information support of the agents of nature conservation activity and increase of greening processes efficiency [2, p.38–44].

Results of economic and ecological safety assessment of a territorial natural and economic system are a basis for the analysis of economic activity impact on the environment.

In modern conditions, when questions of economic and ecological safety become priority (along with a complex assessment), there is an imperative need for the comprehensive analysis of interaction of ecological, economic, and social factors of social development, a research of eco-economic processes and the development of theoretical and practical principles of economic and ecological safety strategy on this basis. Despite the available development, the uniform methodological basis for the economic and ecological analysis is absent.

The environmental analysis represents a complex and multidimensional challenge. In this regard, the approach, at which sources of ecological danger for the country consider territorial and branch aspects, deserves attention. Then changes of the environment, caused by action of the anthropogenic factors related to the above mentioned sources of ecological danger, are analyzed.

Change of the environment is estimated according to its main components (air, water, soil) in relation to population health. The state of flora and fauna are also analyzed. Thus, it is important to reveal actual and potential ecological threats, to classify certain regions of Ukraine according to environmental hazard in the regions (security degree) and to arrange the general environmental problems by hazard level [1, p.205–216].

Purposeful allocation of reserved zones, parks and wildlife areas can play an essential regulating role in achievement of eco-economic balance of territories, increasing its natural security. The natural and economic landscapes are more diverse, they are especially resistant to anthropogenic influence; the self-recovery capacity of the territory is higher.

The economic and ecological analysis (the analysis of economic activity impact on the environment) is consolidated to definition of quantitative expression of interrelations between eco-economic system elements. It is the necessary prerequisite to forecast the development of economic and ecological system.

The economic and ecological analysis may be general (for forecasting, drawing up programs, etc.) and special (for availability at price establishment in environmental management, the efficiency increase of economic and administrative methods of ecological regulation, etc.) at the level of firms and regions.

The procedure of economic and ecological analysis is the following:

- analysis of nature protection activity of the enterprises;
- analysis of structure of nature conservation costs;
- analysis of an organizational technological level of nature conservation activity;
- analysis of results of improvement of natural resource management and the environmental quality.

The economic and ecological analysis is based mainly on relative indicators which can be compared with:

- standards and safety indicators;
- similar data of other regions;
- similar data for previous years;
- necessary expenses for stabilization of an ecological situation, improvement of the environmental quality.

The economic and ecological analysis is necessary both to leaders and to relevant services of the enterprise, to administrations of subjects of federation and municipalities, local bodies, sanitary and epidemiologic stations, etc. According to forsaied, the analysis is subdivided into:

– internal, which is carried out by services of the enterprise and which results are used for eco-economic planning, control and forecasting;

– the external analysis, which is carried out by bodies of government and supervisory authorities on the basis of the published reports.

Now there is a certain methodical basis for the analysis of the nature conservation activity of the enterprises, and it can be used in the economical and ecological analysis of a territorial environmental and economic systems. In the comparative analysis, it is possible to use the following indicators:

– share of expenses for conservation in a regional product costs per capita;

– dumping of the polluted sewage in reservoirs per capita in the production of a regional product of UAH 1 million;

– emissions to the atmosphere per capita in 1 sq. km of the territory in production of a regional product of UAH 1 million;

– the cost of environmental protection equipment per capita in 1 sq. km of the territory;

– economic density of the region that is a ration between the requirements of the population and available resources (due to production in the areas it occupies);

– environmental impact assessment index (work of population, production per worker, and volume of pollutants per unit of production);

– anthropogenic factor (consumption of the biota production by the population of the country: in the form of food, wood, solar energy, and other energy carriers used for production and consumption);

– share of recovery, refinement and neutralization of harmful substances.

On the whole, indicators of the economical and ecological analysis may transact with indicators of sustainable development. Also in the comparative analysis, it is necessary to compare the corresponding indicators of the region not only to other regions, but also to the corresponding indicators defined for the country.

Very often the economical and ecological analysis is consolidated to the analysis of the structure of the costs for nature conservation. Thus, the following tasks are set:

– control of target use of means;

– definition of structure and assessment efficiency of various sources which are used for financing nature conservation activities;

– volume, structure and dynamics of environmental cost analysis;

– assessment of the optimal volume and direction of environmental costs;

– estimation of cost efficiency for environmental protection;

- scoping calculation, the directions and sources of financing costs for scheduled actions.

In the analysis of environmental costs at the region and the country levels, it is possible to use the established conventional economic and ecological principles. In particular, it is possible to compare the actual indicators of environmental costs to the expenses, which are necessary for stabilization of an ecological situation, improvement of environmental quality, etc. For an objective appraisal of the quality and sufficiency of the held events and their results, it is necessary to analyze a balance of material resources: "entrance to production" and "withdrawal from production". Drawing up such balances assumes the issue of the ecological passport of the enterprise.

A number of indicators is developed for structural analysis of nature conservation costs:

- specific weight of capital costs in total costs for conservation activities and rational use of natural resources;
- specific weight of the current costs in total costs for amount of expenses for actions for conservation activities and rational use of natural resources;
- specific weight of costs for protection of the industrial environment in total costs for conservation activities and rational use of natural resources;
- specific weight of costs for protection and rational use of water resources in total costs for conservation activities and rational use of natural resources;
- specific weight of costs for destruction and neutralization of solid and liquid wastes (without the pollutant which is extracted from flue gas or sewage) in total costs for conservation activities and rational use of natural resources;
- specific weight of costs for other purposes in total costs for conservation activities and rational use of natural resources.

Government bodies, sanitary and epidemiological services, etc. need to have such information. However it has regional character and is of little use for a single enterprise.

To enlarge this list, it is required to add indicators of specific costs for introduction of progressive technologies (low-waste, wasteless, etc.) in proportion to nature protection effect, and also specific costs for payment of environmental services of the third party enterprises and costs related to construction and operation of the enterprise and the region of the objects of environmental protection of general use in total costs for conservation and rational use of natural resources.

During the analysis, it is necessary to open available reserves of the growth of such costs as those that are the most effective ecologically and economically. At the large enterprises it is

reasonable to divide all above-mentioned expenses into actual nature conservation and related rational use of natural resources (though in many cases such division is conditional).

Additionally, current nature conservation costs are to be assessed; nevertheless, it is difficult to estimate such type of costs due to the lack of the adjusted system of their account.

An analysis of an organizational technological level of nature conservation activity is a separate block of economic and ecological analysis. To conduct such an analysis, a coefficient of the maximum associativity of capacities of clearing and capital processing equipment, as well as efficiency of nature conservation constructions can be used. Besides, indicators of environmental capacity of production, capital productivity of nature conservation objects (through the prevented damage), etc. can also be used.

The analysis of results on improvement of use of natural resources and quality of environment, on the one hand, characterize the achieved level of environmental protection activity, and on the other hand, has to become the most important element of the economic analysis of environmental protection activity; the environmental effect is determined according to the results of the costs of environmental protection.

The tasks of this part of the analysis are as follows:

- assessment of implementation of the plan for relevant indicators;
- study of the factors which have affected the achieved results;
- determination of compliance of the achieved results to existing norms of admissible pollution of components of the environment and the average industry norms of use of natural resources;
- assessment of the existing organizational technological level of environmental protection activity and planned nature conservation actions based on activity result analysis for natural resource use and environmental quality improvement;
- choice of the actions, which are carried out to promote further improvement of results of environmental protection activity.

The synthesized indicators, characterizing use of separate environmental components as a whole or giving a general characteristic of environmental management at the enterprise, are of particular interest. For their development, it is possible to use land use indicators, water consumption (water-retaining capacity and water return) indicators, indicators of assimilatory capacity, and also a summarizing indicator of environmental capacity.

To ensure economic and ecological safety, there is a set of forms and methods of the most effective use of all types of resources and opportunities which guarantee security of the society

vital interests against the real and potential threats, created by anthropogenous environmental impacts, and which provides scientific, technical and social development with priority compliance of economic type of activity to technical, technological and other environmental standards.

To create an effective system of safe economic and ecological development of the Black Sea region, it is necessary to carry out a system of scientifically based mechanisms for adaptation, protection and regulation of negative impacts.

In the development of the due system, it is obviously important to be guided with the following working principles:

- community of interests;
- consideration of uniqueness and realization of economical and geographical position of the Black Sea region;
- understanding of the value of the resource and ecological component of the seaside region;
- balanced combination of branch-wide and territorial factors in the development of the seaside region;
- combination of long- and short-term interests;
- harmonization of development of the market, business and system of economical and environmental safety;
- consideration of local interests.

The carried-out factorial analysis of nature conservation activities in the Black Sea region showed that major its factors as follows:

- 1) environmental safety of resources and intensity of the impact on it;
- 2) level of environmental awareness of the population;
- 3) level of state governing. Certain factors have to be considered at the development and implementation of ecological programs, at regulation of nature conservation activities for the purpose of increase of its efficiency.

1. Danilishin B. M. (2008), Environmental Security Strategy of the regions of Ukraine and its guarantee, Kyiv: Naukova Dumka.
2. Khoruzhaya T. A. (2002), Assessment of environmental hazard, Moscow: Book service.
3. Lobanov E. A. (2009), About the formation of the national system environmental indicators of Kharkov: Burun kniga.

3.4 SUSTAINABLE DEVELOPMENT STRATEGY OF THE RIVER HORYN BASIN'S AGROSPHERE

Over the period of the past decades of the 20th and the beginning of the 21st centuries our environment including agro- and water resources of the country suffers from increasing impact of economic human activity.

There is mounting concern over the problem of surface water pollution which has become one of the most important environmental problems because of bad and very bad water quality in most rivers of Ukraine.

In this connection and according to the United Nations Conference on Environment and Development which took place in Rio de Janeiro, Brazil (1992) and Johannesburg (2002) there appeared the need to improve surface water quality of the rivers in Ukraine and the environmental conditions in general.

To my mind, the solution of these actual problems is possible on condition of balanced development of separate administrative and territorial communities which exercise their activity in the basins of rivers.

It should be noticed that papers by I. O. Aleksandrov, O. F. Konovalov (2010), Z. V. Gerasimchuk, I. M., Vakhovich (2002), L. T. Melnik (2005), V. G. Polishchuk (2011) and other scientists are devoted to the study of sustainable development of the regions where the base of methodical and dynamic patterns of sustainable development strategy of the regions have been introduced.

Taking into account these elaborations we offer to carry out the strategy of sustainable development of the river basin based on SWOT-analysis.

Methods of investigation are based on system principle. Social, economic and ecological system of agrosphere of the river basin is considered to be the integrity which combines naturally located and interconnected parts (social, economic and ecological subsystems).

The process of strategy development elaboration of social-economic and ecological systems is known to consist of consecutive realization of several stages which can be formulated as following and in such consecution: gathering and analysis of the data concerning the most important factors of outside (state) and inside environment (river basin); choice and formulation of strategic vision and mission of further development of the basin area; definition of strategic objectives and individual target for their effective realization; choice of the most effective strategy; formation of the system of feedback in the form of key indicators of quantitative and qualitative achievement of the strategic target.

The first stage is of the most importance: when the analysis of information of the main social processes, economic trends and ecological state of Ukraine, as well as financial, resource, energy, commodity and raw currents, inter-regional contacts, etc. are accomplished that give an opportunity to determine important factors (possibilities and threats) which influence the development of the river basin; the display of inner reserves, overcoming of outer and timely notice of inner threats, analysis of reserves which mean classification of effects within the categories “strong points – weak points”.

Based on the estimation of the social, economic, ecological subsystems, indicators of the regions belonging to the area of the river Horyn basin, SWOT-analysis has been made, the results of which are shown in Table 3.1; 3.2.

Existing strong points (advantages) and weak points (disadvantages) of the area of the river Horyn basin in long-term perspective are given in Table 3.1.

Table 3.1

Strong and weak points referring to sustainable development of the river basic area
[Author’s adaptation based on 1; 3]

Strong points (advantages)	Weak points (disadvantages)
1	2
Section 1. Nature-resource potential	
1.1. Favorable climate conditions for the development of agriculture, agrolistics; 1.2. Mineral and raw base (building materials, amber, peat, marl, sapropel); 1.3. Availability of substantial nature-preserving stock recreation infrastructures; 1.4. 65 per cent of land stock is represented by black earth, grey forest soils and drainage turphy podzolic and peaty soils; 1.5. Availability of underground water reserves; 1.6. Availability of substantial forest-covered areas which supply oxygen production.	1.1. Breach of ecological balance of stagnant water areas of economic significance, caused by hydrotechnical melioration; 1.2. High specific weight of drained and ploughed lands in Polissia regions and on the slopes in the forest-steppe part of the basin; 1.3. Decrease of soil cover fertility due to dehumification, chemical and physical degradation and radioactive contamination of agricultural areas of economic significance; 1.4. Export of raw material abroad.
Section 2. Economic subsystem	
2.1. Profitable geographical location for transport, interregional and international cooperation; 2.2. Developed agrarian sector; 2.3. Availability of large-scale competitive enterprises; 2.4. Developed transport infrastructure; 2.5. Developed interregional and international contacts; 2.6. Availability of scientific engineering and industrial potential in nuclear power engineering and chemistry, building of material production and recycling of industry; 2.7. Availability of secondary raw materials; 2.8. Increase of investments into basic capital; 2.9. Branched network of banks and bank members.	2.1. Bankruptcy and closing down of industrial enterprises; 2.2. High energy-material capital intensity of production stocks; 2.3. Over 75 per cent of main industrial stocks is wear and tear; 2.4. Insufficient financial support of scientific institutions; 2.5. Railway, automobile, loading and passenger transport needs modernization; 2.6. Satisfaction of people’s needs of non-foodstuff production is partly done due to import; 2.7. Low loading of producing capacity of nuclear power stations; 2.8. Non-payment of taxes by people engaged in “shadow” economics.

Table 3.1 continuation

1	2
Section 3. Social subsystem	
3.1. Positive growth of population; 3.2. Availability of network of health protection establishments; 3.3. Availability of educational establishments of the 3 ^d and 4 th degree of accreditation with sufficient personnel quantity and scientific research institutions; 3.4. Availability of well-developed network of social institutions; 3.5. Well-developed network of mobile communication, TV communication and postal services; 3.6. Availability of natural, recreation, historical and cultural potential for the development of tourism.	3.1. High level of unemployment and personnel instability; 3.2. Availability of “shadow” people’s employment; 3.3. Migration of qualified personnel abroad; 3.4. Deficiency of qualified workers; 3.5. Considerable differentiation of payment depending on different economic activity; 3.6. Debts in payment; 3.7. Needs of sewerage network and reconstruction of purifying structure; 3.8. Consumption of water of bad quality in the countryside.
Section 4. Ecological subsystem	
4.1. Enlargement of wood areas by natural afforestation; 4.2. Low level of air pollution by pollutants; 4.3. Use of underground waters for water-supply.	4.1. Radionuclide contamination of regional territories in the Polissia zone; 4.2. Worsening of state of water-marshy areas of lands and surface waters in small and average-sized rivers, first of all, the Ustia and the Horyn; 4.3. Imperfect systems of collection and utilization of hard waste; 4.4. Growth of the emission volume of contaminated substances into atmosphere from movable sources.

Besides, SWOT-analysis of the inside environment of the region allows to establish possibilities which are of primary importance and have highly-dangerous threats for balanced development of the region (Table 3.2).

Correlation of strong aspects (inside factors) was being done simultaneously with the process of SWOT-analysis to use the maximum possibilities (outside factors). The results are presented in figure 3.1.

The ways of weak points overcoming (inside factors) using possibilities (outside factors) have been determined, and given in figure 3.2.

The ability of weak aspects (inside factors) to intensify threats was estimated and given in figure 3.3.

Taking into consideration all this and the main principles of social, economic, ecological problem solution, meeting the requirements of the Rio Declaration the strategy of the sustainable development of the river basin is determined.

Table 3.2

Possibilities and threats referring to sustainable development of the river basin area

[Author's adaptation based on 1; 4]

Possibilities	Threats
Section 1. Economic subsystem	
1.1. Quota on sale of greenhouse gas emission; 1.2. Organization of separate collection of waste or schemes of its utilization and getting of economic effect; 1.3. Increase of additional local ecotaxes for environment pollution.	1.1. Reducing of the amount of able-bodied population; 1.2. Increase of the number of days with incapacity to work; 1.3. Necessity to eliminate breaks and change of water supply and sewerage network and heating mains; 1.4. Costs on flooding elimination of the region area and urban territories; 1.5. Presence of "shadow" sector of economics.
Section 2. Social subsystem	
2.1. Allocation of credit and taxation preferences to the enterprises of ecologically clean goods and services; 2.2. Realisation of the educational programme for sustainable development; 2.3. Using of mass media to inform people about the breakers of ecological law.	2.1. Dying out of rural population; 2.2. Increase of cases of people's diseases caused by the pollution of environment; 2.3. People's consumption of agricultural products contaminated with radionuclides and heavy metals; 2.4. People's consumption of falsified – and – genetically modified foodstuff; 2.5. Reducing of people's life expectancy.
Section 3. Ecological subsystem	
3.1. Using of straw and peat as alternative fuel; 3.2. Construction and reconstruction of the Chop-Kiyiv highway; 3.3. Passing over the use of ecologically clean kinds of fuel; 3.4. Development of the prevention programme of area flooding; 3.5. Application of reversible water supply system; 3.6. Introduction of works concerning planting of greenery in towns, settlements and sanitary protective zones.	3.1. Ozone layer destruction; 3.2. Acid rains; 3.3. Reducing of biodiversity; 3.4. Chemical and bacteriological contamination of water objects; 3.5. Decrease of organic substance contents in peaty soils; 3.6. The rise of groundwater levels of urban built up territories; 3.7. Presence of considerable amount of industrial waste of phosphate fertilizers in the region; 3.8. Worsening of ecological conditions of basin-cooler in Khmel'nitski nuclear power station, lake Bile; 3.9. Decrease of currents and small rivers.

It's known that according to the Rio Declaration the main principles of social, economic and ecological problem solution come to the following:

- to maintain human rights for healthy and fruitful life in the harmony with nature;
- to keep to sovereign right of the countries to use their natural resources according to the foreign policy they pursue but without harm to environment inside and outside their territories;
- necessity of environmental protection as an integral part of the process of achieving of the sustainable development;
- restriction and withdrawal of the production structures which do not correspond to the sustainable development;
- involving citizens to the problems of environmental protection;
- peace, development and nature protection are interconnected and inseparable.

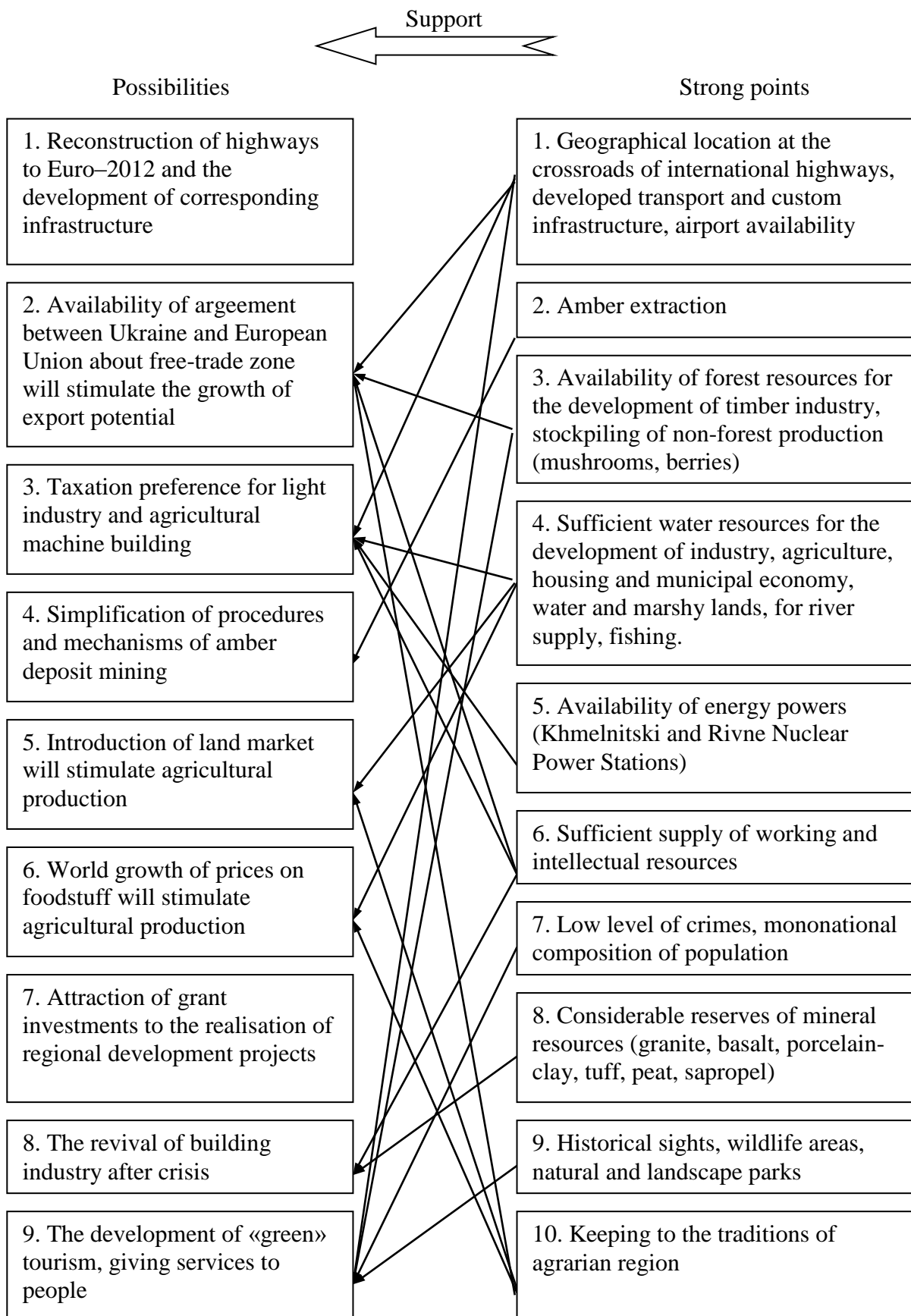


Figure 3.1 – SWOT-matrix «possibilities: strong points»

[Author's adaptation based on 1; 3]

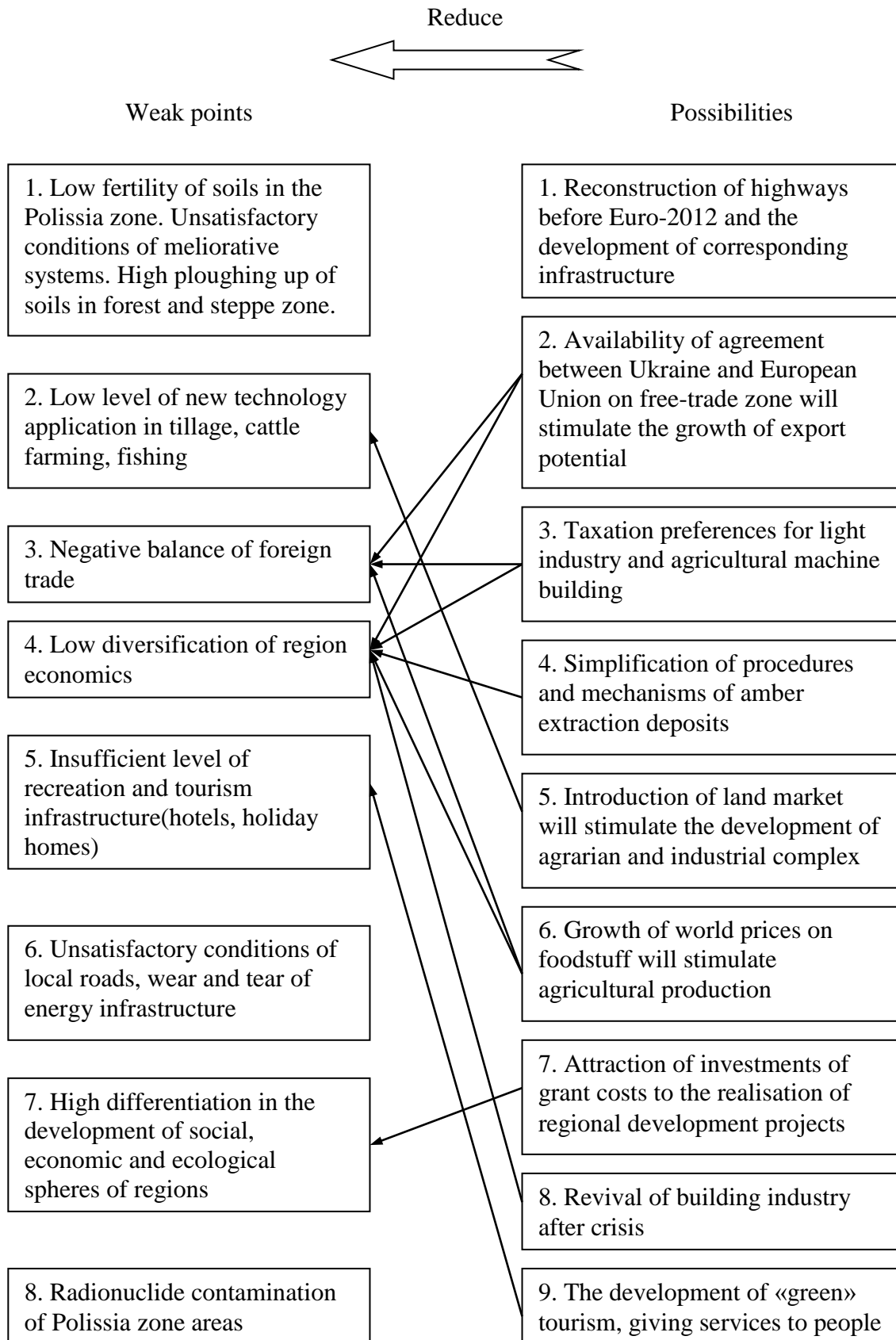


Figure 3.2 – SWOT-matrix «weak points: possibilities»

[Author's adaptation based on 1; 3]

The achievements of these priorities are possible only on the conditions that the following regulations are fully taken into consideration in the strategies of the river basin sustainable development:

- complex and safety: programmes of economical development should take into account all the complex of possible ecological threats, risks and their economic, social and ecological consequences;

- scientific grounds: assumption of strategic decisions in all spheres of activity has to be based on scientific and practical elaboration in the sphere of sustainable development;

- banning and prevention of the caused damage: it's more effective economically to prevent from harmful actions to environment than to eliminate or compensate them later;

- innovations: priority of innovative technologies and equipment aimed at the production of ecologically clean products to the technologies of "pipe's end";

- closing of energy and material production lines: complex use of natural resources with maximum approach to non-polluting production of economic goods, organisation of industrial cycles analogically natural ecosystem functioning based on the principles of non-pollution, cooperation and recycling;

- balance of economic and ecological needs: maintenance of the volume of natural resource use and emission of contaminated substances in the limits of regenerative and assimilative capability of ecosystems;

- cooperation on mutually beneficial conditions:
all social groups of the region, including private business, local authorities, non-governmental public organisations etc.;

- at the state and international levels in the sphere of prevention of translimited pollution of environmental components, taking into consideration differentiation of all round contribution into pollution and distribution of their responsibilities as well;

- social justice – ensuring guarantees of equal rights for citizens following the law, ensuring equal possibilities for the achievement of material, ecological and social welfare;

- dynamic improvement of ecological policy, nature-protecting programmes and principles of rational economy, taking into account the condition of environment which is changing;

- compensation of harm which is done to the components of environment and people's health by those individuals (physical, juridical) whose activity has resulted in negative impact on the nature;

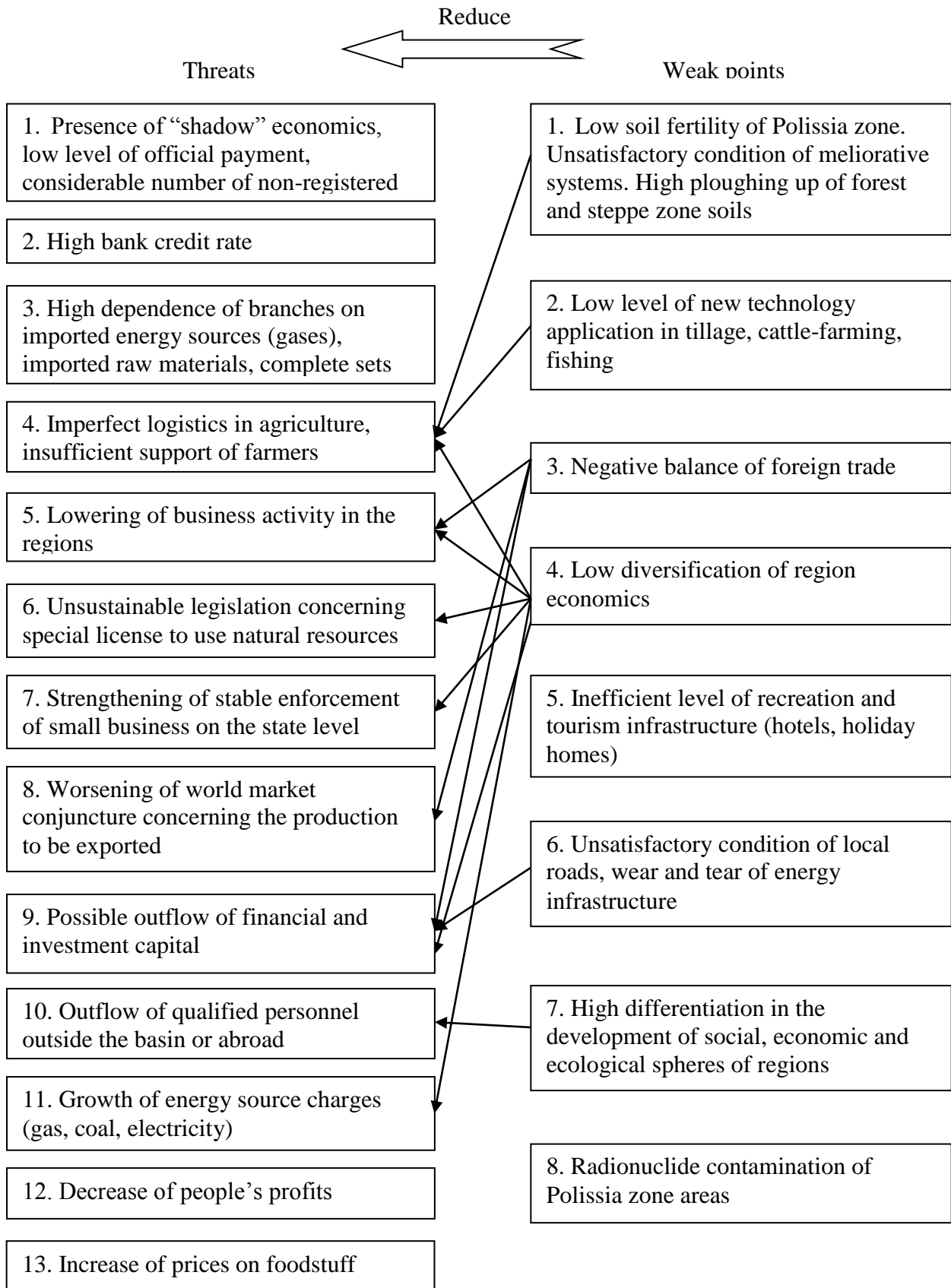


Figure 3.3 – SWOT-matrix-matrix “threats: weak points”

[Author’s adaptation based on 1; 3]

– motivation: making the process of formation organizational, social and economic conditions which are constantly renewing, stipulating for the rise of impulses, effective causes and striving for taking and achieving of strategic targets.

For more perfect consideration of peculiarities, condition and specificity of the development of social, economic and ecological systems of the basin the strategic vision and mission of its development for long-term perspective are grounded.

The right of strategic vision and mission permit to reduce the risks of governing solution choice and ensure the coordination of authority and community actions on all the stages of practical implementation of the region sustainable development.

Strategic Vision

Conversion of the territory of the Goryn river into all-round developed innovation-oriented agrarian and industrial complex with qualitative standard of people's life, with ecologically directed market of goods and services, minimum possible technogene loading on natural ecosystems is based on the security of balance of its development with favourable investment condition.

Strategic Mission

The achievement of balanced social, economic and ecological development of the basin do not break the limits of natural ecosystem carrying capacity and do not aggravate the quality of surface waters.

Transition of the region to sustainable balanced development will ensure the achievement of the following strategic targets:

1. Economic progress – possibilities, motivation and guarantees of citizen's employment, effective functioning of social, economic and ecological system, balanced use of resources, ensuring high-quality life of the population.

2. Social justice – guarantee the level of possibilities for the achievement of social, material and economic welfare.

3. Preservation of ecologically safe environment – overcoming of consequences of Chernobyl catastrophe, balanced use of land, water resources, preservation of biodiversity.

According to strategic targets the following strategic trends are chosen:

1. Economic trend:

– restructurisation of industrial complex and reprofiling of production aimed at the transition to alternative sources of energy and output of ecologically clean production (reducing emission and waste accumulation);

- withdrawal from exploitation of old and worn equipment, gradual refusal from ecologically dangerous technologies of production of industrial and agricultural products;
- formation and development of the market of ecological goods, products and services;
- formation and development of the system of innovation development stocks and conditions for attraction of investments into industrial spheres;
- development of infrastructures to support enterprises (formation of industrial parks, free economic zones, exhibition halls etc.);
- closing of disorganized sources of environment pollution.

2. Social trend:

- raising of the quality of education according to the requirements of higher education standards in Ukraine, Bologna agreement and European economic committee attached to UN;
- strengthening integration in the network of secondary schools of the 1st and 4th degree of accreditation;
- improvement of personnel requalification within the period of their working activities;
- active use of scientific potential of educational establishments, scientific and research institutions in industrial, economic, social and ecological spheres;
- formation of projects for public realisation involving representatives of science, industry, community and authorities;
- concentration of intellectual resources in accordance with priority trends of region development;
- giving all-round support to motherhood and childhood protection;
- support of health protection institutions, renovation of medical equipment, buying of modern equipment and means of diagnostics;
- giving medical services: diagnostics, prophylaxis and treatment;
- reforming housing and municipal economy, formation of competitive conditions in the market of housing and municipal services;
- prevention of technogene accidents and catastrophies in the sphere of housing and municipal economy;
- modernization of housing and municipal economy objects, systems of heat supply, water supply and water overflow;
- establishment of means of gas consumption registration, thermal energy, hot and cold water;
- substantial repairs of purifying systems;

- development and timely repairs of railway, automobile, aircraft transport systems;
- renovation and modernization of passenger and loading transport depot;
- formation of competitive conditions in the market of passenger superiority.

3. Ecological trend:

- ensuring with rational use of natural resources;
- development of nature-protective infrastructures, substantial repairs, modernization of nature-protective equipment, devices;
 - elaboration and application of ecological programmes aimed at people's protection from flooding; liquidation of disorganized sources of emissions and throwing of pollutants, liquidation of spontaneous rubbish heaps; recultivation of damaged lands;
 - introduction of ecological inspection system (monitoring, ecoaudit);
 - prevention of transregional import and export of ecologically dangerous technologies, substances and materials;
 - introduction of economic, social and ecological trends of sustainable development strategy of the basin should predict having economic, social and ecological effect.

The priority trends which ensure obtaining these three effects need first and foremost realisation.

Strategic targets in the sphere of economy:

1. Reformation of interbudget relations between the centre and the region on the conditions of making them more precise and delimitation of their income and expenditure power.
2. Improvement of investment attractiveness of the basin territory.
3. Formation of modern developed infrastructure.
4. Effective use of resource potential of the basin.

In the social sphere:

1. To facilitate the growth of natural population increase, renovation of pre-school educational establishment activity.
2. Overcoming of unemployment, creation of school-leavers' possibilities to place in a job.
3. To guarantee active support of new families, motherhood and childhood protection.
4. Increase of quality and ensuring with access to medical services for people.
5. Modernization of education in the region which would be favourable for transition to sustainable development.
6. Improvement of formal and informal education for sustainable development.

In the sphere of ecology:

1. To facilitate the increase of people's lifespan in the territory of the basin by reducing people's sickness rate connected with the unsatisfactory condition of environment.

2. Ensure preservation of biodiversity of natural ecosystems of the local and regional level by nature-protective use of forestry, land and water resources.

3. To work out and introduce in towns and settlements the programmes of separate collection, recycling and use of secondary raw materials, formation of rubbish-heaps, storage of hard waste in every agricultural station of the region.

4. To strengthen recreation attractiveness of the basin territory through enlargement of the area of nature-preserving stork by 15 per cent and the development of "green" tourism.

5. To conduct passport control of drinking water supply sources (water pumping, mineshafts) in order to supply population of the region with drinking water of high quality.

6. To improve the working system of ecology taxes for doing harm to the environment (in the limits and over them), bring them to the ecological expenses of the enterprise which is supposed to stimulate the development of nature-protective and resource-keeping technologies.

7. To provide people of the basin with systematic mass media information concerning the condition of the social, economic and ecological sphere development.

According to the results of SWOT-analysis, inside and outside environment of the river Goryn basin may be estimated as favourable for sustainable development of this area. Possibilities have been discovered and the expediency of transformation of the territory of the river basin into all-round developed innovation-oriented agrarian and industrial complex have been substantiated. In the future they will ensure the achievement of its balanced social, economic and ecological development that don't break limits of carrying capacity of natural ecosystems and will guarantee the improvement of surface and underground water quality.

1. Alexandrov I. O. Strategy of sustainable development of the region: Monograph/ I. O. Alexandrov, O. V. Polovian, O. F. Kononov and others: under general editorship of I. O. Alexandrov. Donetsk: Publishing House "Knowledge", 2010. – p. 203.

2. Chumachenko N. G. Problems and ways to ensure the development of the regions / N. G. Chumachenko, A. I. Amosha // Industrial economy, 2002, №4 – pp.201–206.

3. Gerasymchuk Z. V., Vakhovych I. M. Organization and economic mechanism of the formation and realisation of the region development strategy. Monograph, Lutsk. Lutsk State Technical University, 2002. – p. 248.

4. Gerasymchuk Z. V., Polishchuk V. G. Stimulation of region sustainable development: theory, methods, practice. Monograph, Lutsk, State Technical University, 2011. – p. 516.

5. Principles of the sustainable development: manual. Under general editorship of L. G. Melnik, Sumy "University textbook", 2005. – p. 654.

3.5 GENERAL PRINCIPLES OF CONDUCTING A COMPETITIVE MARKETING RESEARCH OF INDUSTRIAL MARKET ENVIRONMENT

Marketing research is an integral part of any enterprises activity and at different stages of the life cycle of an entity can entirely satisfy the need for information provision in order to solve the strategic and tactical tasks. An analysis of the competitive environment is important for businesses of all areas.

A phenomenon of competition in today business environment is one of the fundamental factors of progress and development in general. Characteristics of competition and competitive environment are thoroughly explained in the papers by M. Porter, J. Robinson, Fatkhutdinova R. A., J. Schumpeter, J-J. Lambe, I. Ansoff and others. The analysis of scientific sources on the subject suggests the existence of conceptual and categorical uncertainty about the concepts of "competition" and " competitive environment".

Thus, since there is no general point of view on the concept, it can be explained, in our opinion, by a rapid development of economy and emergence of innovative approaches to running business.

According to the marketing theory and the theory of competition the term "competition" is defined by M. Porter as the struggle between the five forces:

- 1) potential competitors (the possibility of the emergence of new competitors in the field);
- 2) goods-substitutes;
- 3) producers within one industry;
- 4) suppliers, partners (the ability to change the conditions of cooperation);
- 5) buyers (the ability to significantly influence market processes by establishing of appropriate requirements).

According to Noble scholars K. R. McConnell and S. L. Brue, the term "competition" should be understood as a set of a large number of consumers and producers on the market, entry or exit of which is unlimited and uncontrolled.

This concept is elaborated more by Fatkhutdinov R. A. in his papers: struggle of entities, aimed at limiting of the influence of each other on the general conditions of goods sale in specific markets.

From the regulatory point of view, particularly in the Law of Ukraine "On Protection of Competition" [7] and the Law of Ukraine "On the Antimonopoly Committee" [8] competition is defined as "competition between entities in order to obtain advantages through their own achievement over other entities, resulting in consumers, businesses who have an opportunity to

choose between several sellers, buyers, where a separate entity cannot determine the terms of sales of goods in the market" [7]. To summarize, we note that there are three generally accepted approaches to understanding of the concept of "competition":

- 1) identification of competition as a rivalry in the market [9; 10; 11];
- 2) competition as a part of the market mechanism of supply achieving and demand balance in the market [1; 2; 4; 5; 6].

3) competition as a criterion for determining of the type of industry market [3; 12].

1. It should be noted that the plurality of approaches to the understanding of the concept of "competition" is caused by its dynamic nature – a factor regulating the interests of various market actors. In terms of marketing, competition – is a process of competition between market subjects (firms and individuals) who are engaged in entrepreneurial activities and are interested in achieving of specific goals [9, p. 64-67].

Thus, competition can have a nature of a phenomenon, which is a prerequisite for market/entity development and progress, and is manifested in various processes taking place in the market under the influence of interdependent and interrelated market economy events or as a result – market participants` behavior. Also, competition may be the one of the properties of a market where, depending on the degree of perfection competition different types of markets are distinguished: monopoly, oligopoly, monopolistic competition, perfect competition.

So, today the market in general and the entities are operating in a competitive environment that is presented by a set of phenomena and processes that influence the development of competition in a particular economy sector.

2. This concept has a major character, which is evidenced by its multilevel structure [18, p. 162-168]:

- global level (international groups environment, between which there is competition);
- macro-level (national economies competitive environment);
- meso-level (regions/sectors competition environment);
- micro-level (entity competition environment);
- nano-level (competition between different individuals – subjects of market relations).

3. The competitive environment consists of a set of factors and processes that are aimed at balancing out the interests of all subjects of market relations. The impact of a particular component of the competitive environment, as well as the direction, significantly affects the nature of competition in a particular market segment and also the relationships between entities. As rightly pointed out in his book V. Heyets [7, p. 2-5], the competitive advantage in the current stage of economics development is losing its strategic properties and it is necessary to apply the

innovative nature of the activity – innovation of production during the whole period of entity's activity, what becomes possible due to the integration process on the market, in order to maintain a competitive position in the market and expand it. Innovative development becomes a key to the long term effective functioning of a company, where much attention is paid to establishing of the relationship between scientific developments and their implementation technology. In particular, it is a business scheme "science - technological knowledge - technology" [17, p. 80-85].

In order to achieve outstanding results in proceedings of innovative activity, it is necessary to fund scientific and applied researches in a sufficient amount, create an appropriate mechanism for the legal protection of intellectual property rights and also to form favorable conditions for the operation of small and medium-sized businesses as for those that are more flexible to innovation [22, p. 42-46].

4. Differentiation of measures for retention of competitive advantages in the market depends on the degree of country's development. Thus, in developed countries high-tech processes are used to produce high quality products and to capture new markets (segments) in order to expand export opportunities in developing countries – competition comes down to reducing of the cost of raw materials and consumables and lowering the revenues from exports, what inevitably leads to a loss of human capital [6, p. 68-72].

5. This approach of companies in developed countries creates the phenomenon of globalization, which leads to a reorientation of the essential concepts of competitiveness, changing forms and methods of competition and so on.

6. The key areas of getting competitive advantages for industrial enterprises can be considered [9, p. 64-67]:

- concentration of company's resources in order to prevent the actions of competitors;
- retention of initiative and leadership in the competition;
- ensuring of resource potential to achieve goals, that were set;
- development of flexible system of entity's activity scheduling in the industrial market by establishing of an effective strategy for cooperation with competitors.

Hence, successful operation of industrial enterprises, as well as companies of any sector of the economy depends primarily on the strength of influence of a competitive environment. At the same time, competitive environment depends on factors affecting it.

Traditionally, scientific studies distinguish internal and external factors in relation to the object of study. Considering the competitive environment as a system of interdependent and interrelated subjects of market relations that are influenced by market forces, it is useful to distinguish the following groups of factors:

- external;
- internal;
- strengthening;
- weakening;
- of direct influence;
- of indirect influence.

List of all the factors within the designated groups is presented in Table 3.3.

Table 3.3

Factors of industrial market competitive environment

[Author's adaptation based on 5; 8]

Group of factors		List of factors
1		2
Strengthening		<ul style="list-style-type: none"> – denationalization; – privatization; – creation of new organizational structures; – differentiation of goods and services; – diversification; – sectoral barriers (entry and exit from the market); – reduction in product life cycle under the influence of scientific and technological progress; – liberalization of investment policy.
Weakening		<ul style="list-style-type: none"> – reducing of the number of enterprises in the sector; – low trading area provision for the citizens; – adverse of tax policy; – term of return on investments; – increased migration and labor resource mobility.
External		<ul style="list-style-type: none"> – country's membership in international organizations and associations; – arrangements and agreements between countries; – established world system of transporting and communications; – globalization.
Internal	macro-economic factors	<ul style="list-style-type: none"> – political (legislation: tax and credit policies, licensing and standardization, the degree of governmental control and its intervention in the economy, increasing conflicts and economic crises in emerging economies); – economic (market development trends, market saturation, pricing policy, level of unemployment and inflation, administrative barriers); – technological (development of computer technology, improvement of production technology and communication processes); – sociocultural.
	micro-economic factors	<ul style="list-style-type: none"> – favorable location; – customer base; – suppliers and partners; – innovative technology of production and service; – progressive methods of sale; – staff needs and requirements for the organization of leisure, work organization, humanizing work places, staff education; – labor discipline; – the possibility of different forms of business organization; – level of internal competitiveness.
of direct influence		<ul style="list-style-type: none"> – country location (legislation, national competitors, substitute products, customers, potential competitors); – international market (tools of supranational regulation of competitive relations, foreign competitors, substitute products, customers, competitors, increased integration). – development of human capital.

Table 3.3 Continuation

1		2
of indirect influence		<ul style="list-style-type: none"> – economic freedom; – division of labor; – forms and stage of market development; – concentration and centralization of production; – pursuit of monopoly; – commodity and money markets state; – processes of mergers and acquisitions; – differentiation of products and services.
Controlled	by governance	<ul style="list-style-type: none"> – field type and purpose of the entity; – role of marketing and other corporate functions; – corporate culture.
	by marketing service	<ul style="list-style-type: none"> – selection of target markets; – marketing goals identification; – organization of marketing activities; – structure of marketing activities management.
Uncontrolled		<ul style="list-style-type: none"> – consumers; – competition; – public authorities; – economy; – technological innovations; – independent media.

As can be seen from the Table 3.3, there are many factors influencing the competitive environment and largely determine the direction of the market. In this context it should be noted that in today conditions of market economy, competitive environment is self-regulating, however, as can be seen from the Table 3.3, the state can significantly affect the nature of its development. The role of government, within this, is to facilitate the emergence and effective functioning of stimulating of business activity and compliance of principle of equal opportunities by all the market participants. Thus, there is need to respect the key principles of a competitive environment development [14, p. 26-37]:

- unity (requirements for the operation of economic entities on the market must be the same throughout all the territory);
- freedom (equal rights for all business entities, as well as security of property rights);
- fair competition (the issue of state regulation and support of effective and equitable competitive environment);
- protection (the presence of an effective regulatory support for prevention, control and suppression of monopolistic activity and unfair competition).

In today environment of entities` functioning increased competition is seen due to the rapid pace of scientific and technological progress, reduced product life cycle, product market saturation and so on. Competition today is seen in three strategic directions [16, p. 156-159]:

- researching the consumer needs based marketing orientation system of the entity;
- predicting of the competitive environment development dynamics in order to identify and implement competitive advantages;
- researching and forecasting of competitive strategies of competitors, their strengths and weaknesses, developing and implementing of measures to strengthen the competitive position in the market.

Competition managing aims to provide the most favorable position for maintenance or expansion of competitive advantage at the expense of evaluating potential competitors and their actions and determining of the degree of competitive threat. Today there are many tools of competitive struggle, but it is always important to analyze the competitive environment . Thus, the main component of effective competitive struggle is the analysis (diagnosis, monitoring, audit) of competitive environment. The key approaches to the understanding of this concept are characterized below.

As mentioned above, in scientific and methodical literature the term "analysis of the competitive environment" is used in various forms. Thus, those are the synonyms of this term that can be considered: monitoring / competitors analysis, competitive environment / competition diagnostics, competitors` activity analysis and so on. Scientific approaches to the interpretation of the essence of this concept can be divided into three groups:

1) specification of certain directions and the purpose of analysis.

According I. K. Belyayevsky, the competitive analysis is an evaluation and a forecast of competitors` opportunities and possible actions through the research and the study of collected information and expert findings.

A similar interpretation of the concept presented in the works of A. A. Frenkel and G. Assel, which are focused on researching and predicting of the actions of competitors and researching of their strengths and weaknesses. In our opinion, none of the mentioned definitions of the concept is complete. Represented directions of analysis are very generalized and incomplete. At the same time, we consider it inappropriate to disclose all the possible directions of conducting the analysis, while it can lead to cumbersome definitions and essence core loss of the concept.

2) competitive analysis as a form or a direction of market research.

Within this group, the competitive analysis is understood as a form of market research, within which the activity of collecting of substitute products and competitors data base is held in order to analyze their behavior and forming own strategies of market activity.

3) processual approach.

Competitive analysis is part of a continuous process of market research aimed at studying practices of competitive struggles in order for specific entity to obtain some competitive advantages.

In our opinion, it is not correct to define the purpose of the competitive analysis as "the pursuit of competitive advantages", based on the fact that the analysis makes it possible to obtain the appropriate conclusions, only on basis of which a market activity strategy can be built.

Hence, competitive analysis should be defined as the collection and processing of information from different sources in order to make management decisions that improve the competitiveness of the entity. In terms of this research, competitive analysis should be considered as a part of market research. The multiplicity of approaches to the understanding of the concept of "competitive analysis" determines the various understanding of its conduction stages. Some scholars generally reveal the main stages of analysis: identification of competitors, their business strategy, strengths and weaknesses studying, particularly they are F. Kotler, V. V. Voylenko and A. I. Kovalyov.

More thoroughly reveal the approach to gathering information within competitor analysis scholars G. L. Azoyev, I. K. Belyayevsky, G. L. Bahiyev and A. M. Tarasevych: identification purposes, boundaries of the market, a study of the market subjects in order to identify competitors and analyze their goals, strategies, calculation of their market share, price trends, marketing policy, assessment of competitors` financial stability.

We believe that this approach to revealing of the stages of competitive research is comprehensive and systematic, although it needs further development in the context of the communication policy of competitors and their strengths and weaknesses. Thus, the key stages of the competition analysis are defined below (Fig. 3.4).

Based on the data presented in Figure 3.4, competitive analysis shall sign consistency and comprehensiveness, as evidenced by the stage of development of the conceptual framework of analysis conduction, field and analytical stages.

It should be noted that the main purpose of competitor analysis is their detection, investigation, competition overall in a particular market segment, as well as the factors that affect it. Along with specifying of competitive analysis purposes, the basic tasks that can be brought to the researcher during its implementation are defined below:

- researching trends in the global competitive environment development;
- identification of key existing and potential competitors;
- identifying of size of enterprises competing, their forms of organization and resource potential;

- calculation of market share, that is occupied by competitors;
- characterization of intensity and the direction of competition;
- evaluation of competitive advantages;
- evaluating the strengths and weaknesses of competitors, their strategy and the competitiveness of their products;
- behavior of competitors forecast construction, as well as predicting of their response to specific marketing activities.

Confirming of opinion on the complexity of the analysis of the competitive environment, we define the basic parameters (technical specifications) of its conduction:

- 1) identification of goals and fundamental objectives of the study;
- 2) strategic analysis techniques;
- 3) study of external and internal environment factors;
- 4) application of analysis tools;
- 5) establishing of key product features in order to develop a marketing strategy.

In the scientific literature, the concept of competitive environment analysis is often used along with the diagnosis, monitoring and auditing. We will briefly review the characteristics of each category in the context of this study.

Monitoring of the competitive environment is a dynamic process of continuous learning of competitive environment throughout the life of the company. Its essence lies in developing and implementing competitive strategy of the entity.

Conclusions and the data obtained by monitoring are a prerequisite for a more thorough and comprehensive analysis and also for an initial stage of development or adjustment of entity's strategy in competitive markets. The process of monitoring of the competitive environment can be represented as in Fig. 3.5.

As shown in Fig. 3.5, the process of monitoring of the competitive environment is clearly structured and consistent, which greatly facilitates the control over performance and enables previous, current and final marketing control at each stage of the business process.

A different set of methods of research can be used for each area of monitoring of the competitive environment. Thus, while monitoring competitive activity continuous and discrete marketing methods should be combined.

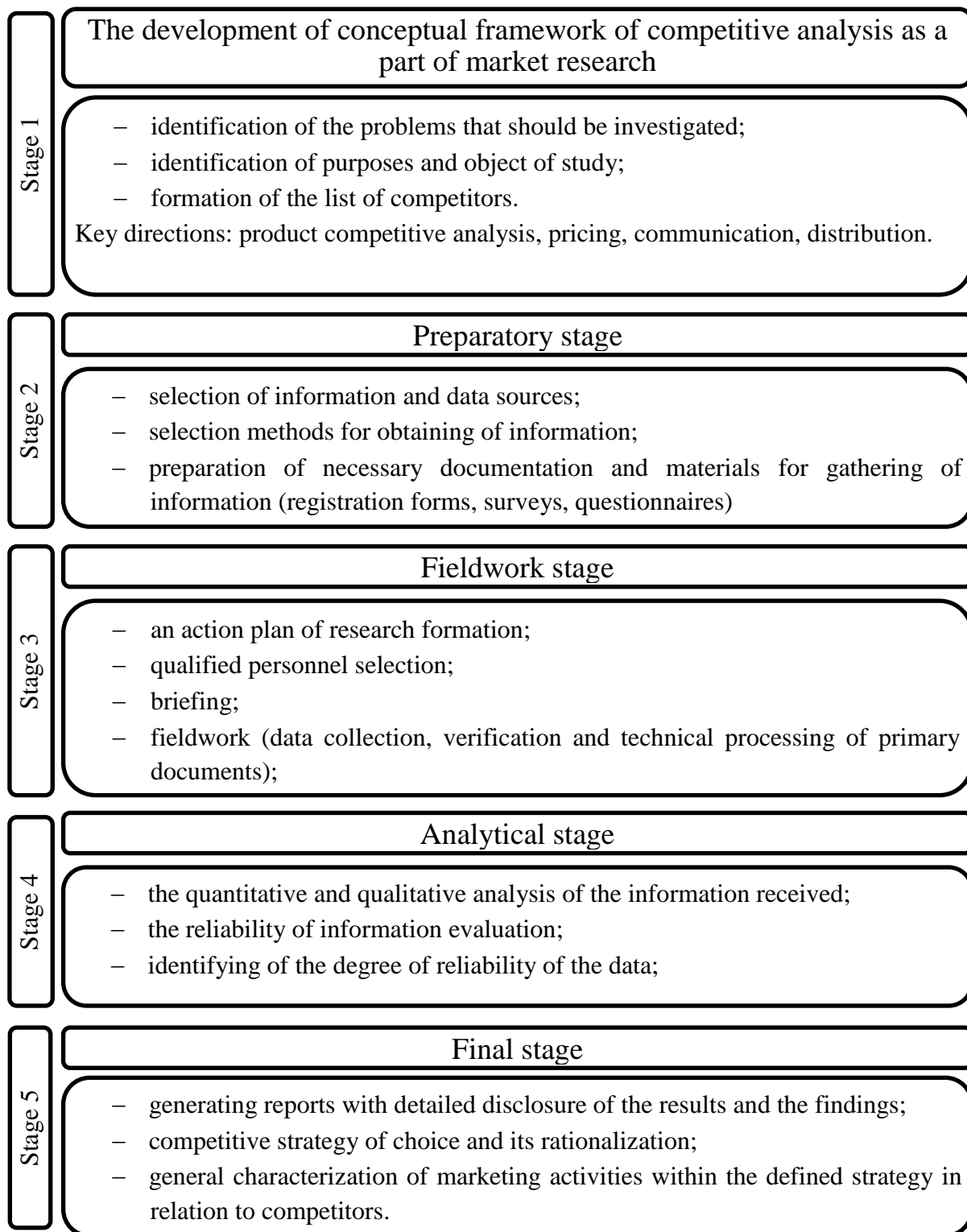


Figure 3.4 – Stages of competitive analysis

[Author's adaptation based on 4; 6; 9]

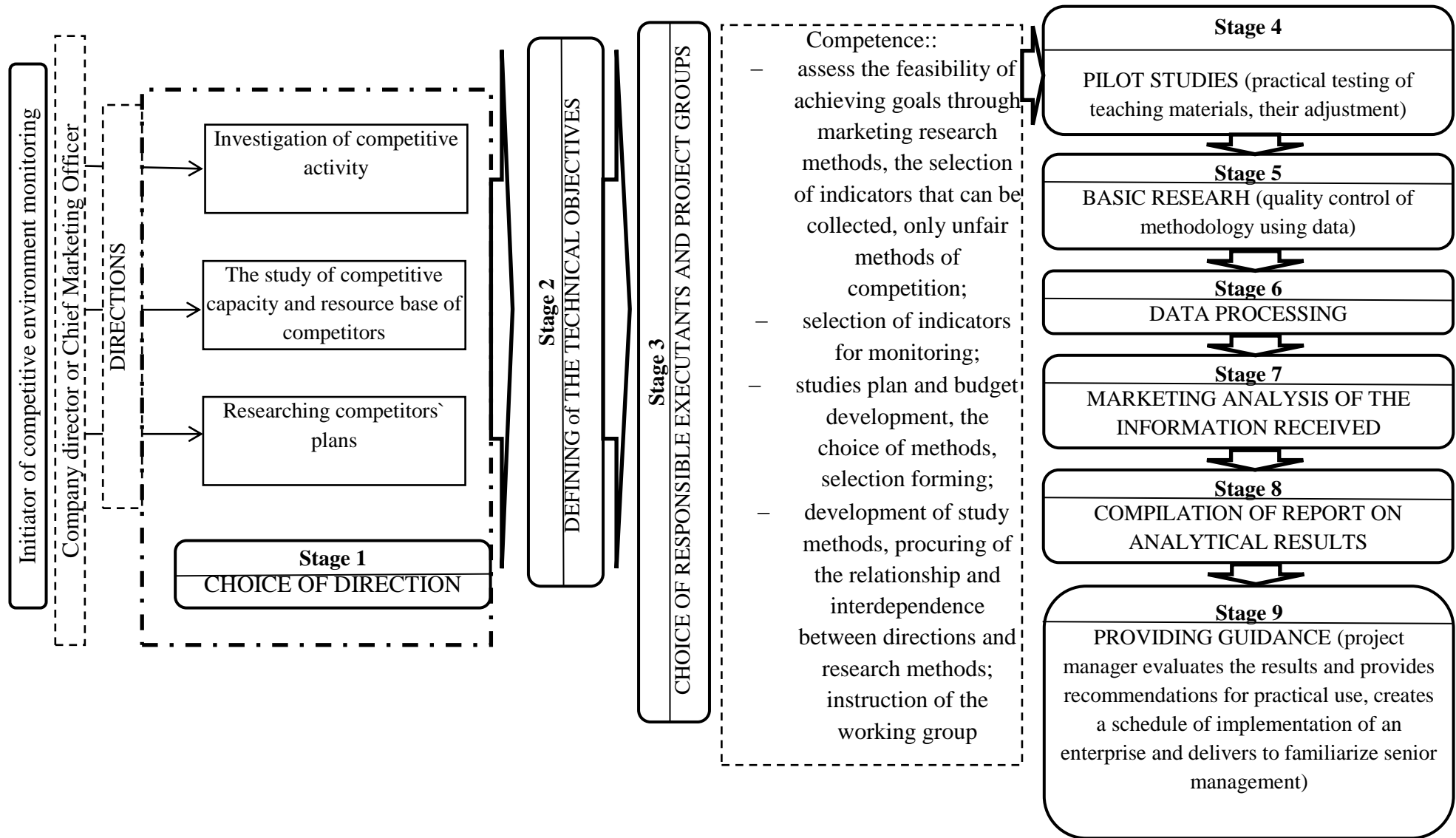


Figure 3.5 – The mechanism of competition monitoring as a separate business process [Author’s adaptation based on 8; 9: 11]

During the monitoring of the competitive capacity and resource base of competitors it is advisable to use special tools of competitor`s information field content analysis on a regular basis, particularly the following software : "Analyticheskiy Kuryer", "Galaktika ZOOM», IPK «Trend», RCO Fact Extractor, Web- Observer, YAS "Astarta ", IES "Analitic- 2", TAS "Semanticheskyy arkhiv" and MAC SmartSearch. Monitoring of competitors` plans is also performed by using of content analysis, but often companies use unfair methods of competition in order to disclose the trade secrets (competitors` plans) [16, p. 156-159].

1. Азоев Г. Л. Конкуренция: анализ, стратегия и практика. М.: Центр экономики и маркетинга, 1996. 208 с.
2. Ансофф, И. Стратегическое управление / И. Ансофф : [пер. с англ.]. – М. : Экономика, 1991. – 416 с.
3. Ассэль Г. Маркетинг: принципы и стратегия: Учебник для вузов / Г. Ассэль. – М.: ИНФРА М, 2001. – 804 с.
4. Багиев, Г. Л., Тарасевич, А. М., Анн, Х. Маркетинг / Под общ. ред. Г. Л. Багиева. – СПб.: Питер, 2006. – 736 с.
5. Беляевский, И. К. Маркетинговое исследование: Учебное пособие, руководство по изучению дисциплины, практикум по курсу, учебная программа [Текст] / И. К. Беляевский // Московский государственный университет экономики, статистики и информатики. – М., 2004. – 414 с.
6. Волинський, Г. Про конкурентні переваги в умовах глобалізації / Г. Волинський // Економіка України, 2006. – №12 (541). – С. 68-72.
7. Геєць, В. Конкуренція в бізнесі і конкуренція в політиці / В. Геєць // Конкуренція. Вісник Антимонопольного комітету України, 2007. – №1 – С. 2-5.
8. Дідківська Л. І. Сучасний розвиток конкурентного середовища ринку споживчих товарів України / Л. І. Дідківська // Банківська справа. — 2009. — № 2. — С. 48–66.
9. Зима, А. Г., Мисько, Н. В. Анализ конкурентной среды отечественных предприятий в условиях нестабильного экономического положения / А. Г. Зима, Н. В. Мисько // Бизнесинформ, 2010. – №3(1). – С. 64-67.
10. Ковалев, А. И., Войленко, В. В. Маркетинговый анализ. – 2-е изд., перераб. и доп. / А. И. Ковалев, В. В. Войленко. – М.: Центр экономики и маркетинга, 2000. – 254 с.
11. Конкурентна політика держави в умовах трансформації національної економіки : монографія / за заг. ред. В. Д. Лагутіна. — К. : Київ. нац. торг.-екон. ун-т, 2008. — С. 194.
12. Костусев О. О. Малий бізнес та формування конкурентного середовища / О. О. Костусев // Формування ринкових відносин в Україні : Зб. наук. пр. — К., 2004. — № 6 (37). — С. 80–85.
13. Котлер, Ф. Основы маркетинга [Текст] / Ф. Котлер, Г. Армстронг ; пер. С англ. – 9-е изд. – М.: Изд. Дом «Вильямс», 2003. – 1200 с.
14. Лазебна, А. І. Формування конкурентного середовища у роздрібній торгівлі / А. І. Лазебна // Вісник КНЕУ, 2011. – №2. – С. 26-37.
15. Ламбен, Ж. Ж. Стратегический маркетинг / Ж. Ж. Ламбен. – М.: Наука, 1996. – 590 с.

16. Максимова, М. И. Организация мониторинга конкурентов в управлении современным предприятием / М. И. Максимова, Р. В. Рыбальченко, А. А. Сенюк // Экономика и управление, 2011. – №5 (78). – С. 156-159.
17. Михайловська, О. «Європейський парадокс» інноваційного розвитку: уроки для України / О. Михайловська // Економіка України, 2006. – №6. – С. 80-85.
18. Новокшонова, Л. В. Экономическая ментальность как фактор совершенствования конкурентной среды / Л. В. Новокшонова, М. Ю. Хазан // Вестник Нижегородского университета им. Н. И. Лобачевского, 2009. – №1. – С. 162-168.
19. Портер М. Конкуренция / М. Портер ; пер. с англ. – СПб.: Вильямс, 2000. – 608 с.
20. Про Антимонопольний комітет [Електронний ресурс] : закон України від 26.11.2003 № 3659-ХІІ. – Access mode : <http://zakon2.rada.gov.ua/laws/show/3659-12>. – Назва з екрану.
21. Про захист економічної конкуренції [Електронний ресурс] : закон України від 11.01.2001 №2210 ІІІ. – Access mode : <http://zakon1.rada.gov.ua/laws/show/2210-14>. – Назва з екрану.
22. Радєєва, М. М. Інституціональні зміни конкурентного середовища корпорацій / М. М. Радєєва // Вісник Національного університету «Львівська політехніка», 2010. – № 10 (684). – С. 42-46.
23. Робинсон Дж. Экономическая теория несовершенной конкуренции / Дж. Робинсон. – М. : Прогресс, 1983
24. Фатхутдинов Р. А. Конкурентоспособность: экономика, стратегия, управление / Р. А. Фатхутдинов. – М., 2000. – 312 с.
25. Френкель, А. А. Экономико-статистическое содержание конкурентного анализа / А. А. Френкель // Научно-информационный журнал «Вопросы статистики», 2007. – №3. – С. 34-36.
26. Шумпетер Й. Теория экономического развития / Й. Шумпетер. – М. : Прогресс, 1982.

3.6 ALTERNATIVE MANAGEMENT AS A CONCEPTUAL MODIFICATION OF EDUCATIONAL PROCESSES FOR SUSTAINABLE DEVELOPMENT IN HIGHER EDUCATION INSTITUTIONS

“Of identical or almost identical profits, each man, by nature, tends to use part of his/her capital in the way which will probably allow to support national production to the greatest possible extent and will generate income and employment for the highest number of people in his own country. Secondly, each person who places his capital within national production necessarily tries to direct this production, so that its product constitutes the greatest possible value” [5].

Constant pressure exerted on higher education institutions in order to adapt their educational processes to the corporate requirements is a kind of misunderstanding. It is as if children were forced to fulfil their parents’ expectations. A contemporary graduate of a higher education institution is an educated person with a need to introduce changes and a considerable intellectual capital as well as a vision of using it in the professional context. In an enterprise, however, it is sometimes the case that the employer – standing in loco parentis – wishes to

impose a certain thinking framework upon each employee and in this way to limit his/her creative potential. This breeds resistance and opposition and, as a result, is one of the reasons for unemployment among graduates. In this context, one should also consider the frequently used vague term: the highest level of the graduates' education –it maybe replaced by another phrase: the highest level of the graduates' adjustment. Then it will become clear that what we have in mind is the education required by employers – but does it still provide space for development, which is something higher education institutions offer to their students?

In numerous papers, the employer is the keyword in increasing employment. It is the employer who defines the rules for remunerating, on dismissing employees and, in case of company dissolution, justifies it with unstable economic situation. The employer is the ultimate authority only because he is the owner of the corporate assets.

There is no alternative to his actions and no appeal against his decisions. Considering the changes brought about by the development of civilisation, one should risk the statement that this type of management is now depreciating and should become a thing of the past. The time has come to create a new model of corporate management based on other concepts – those following from the works of the twentieth-century theoreticians and based on different assumptions. One should consider the following propositions: if the state in its fiscal policy imposes the obligation to pay taxes upon companies; if an entrepreneur must use a relevant equipment in order to comply with workplace and fire safety rules under pain of financial penalty, then the following hypothesis may prove the truth of the following (some may call it Utopia): If the companies' operation is based on close cooperation with financial professionals and lawyers, then why not consider imposing such an obligation that would force corporations to cooperate with higher education institutions in order to take advantage of the students' intellectual capital? I believe that after reading a fragment of the inaugural lecture delivered in the academic year 1949/1950 in Turin by Luigi Einaudi, this hypothesis will no longer seem so absurd, because An economist does not and should not know or care whether his/her theories, models and tools applied or research performed could or will serve a few people, many people, one person or no one at all. If these items are not correct, others will detect the errors, change and improve them [1].

Higher schools of economy, preparing managerial staff to take up managerial jobs, often succumb to external pressure and adopt the passive teaching method. This involves feeding students with large portions of information to be memorized, which, in turn, leaves hardly any space for them to create innovative concepts. This follows from the globalization processes, where a graduate is most often required to master typical economic knowledge, whereas managerial staff is required to adjust the company's own organizational structures to cooperate

with large stakeholders on the market. In the macro scale, this method of education makes local entities dependent on international corporations. As a result, managing a small company is brought down to supervising cyclical production processes, which may be performed even by a hardly talented manager. This process leads to economic stagnation: allows only for the survival of those who is working already, but in no way creates opportunities for hiring new people.

It is possible to conclude from the above reasoning that the “so far” manner of studying on economic faculties should be modified. Otherwise, Polish companies will never be innovative enough to exist independently on the market and will be forced to play the role of the vassals of European or even global networks. An alternative to the education that has been labelled as passive may be active when studying.

What might help here is the new concept of alternative management, understood as taking advantage of intellectual, social and relational capital of the corporate stakeholders in the process of corporate management. It will involve engaging the students in the process of creating new concepts of production, management, marketing in a company throughout the whole process of education, rather than only when writing assignments, Bachelor’s or Master’s theses. Managers, who will additionally have access to a variety of students’ solutions (which may at times be rather naive, though), will be able to pick out unconventional solutions from this offer. This process may lead to an increase in employment, as the talented ones will be able to present their skills already while studying. An argument for such concept is the fact that more and more unemployed graduates of higher education institutions have no opportunity to present the knowledge they have, while the intellectual capital they have accumulated remains largely unnoticed, thus constituting a waste of the effort and resources put in such capital creation. Such a scale of waste has not been proved previously. The society should oppose such waste and do its best to make sure that its educated members contribute to increasing the general wellbeing instead of assigning more and more funds to combating pathologies among the unemployed.

The objective of this article is to present the essence of alternative management, which would constitute an integral part of teaching management sciences.

The origin of alternative management. If we look at philosophy as a science whose aim is to search for new ways of thinking and at the management process as implementing new solutions in managing corporate resources, we will notice that it is possible to combine the two into one coherent system, which can be referred to as the philosophy of management. Philosophy should not be associated only with the considerations on: the essence and structure of being, sources of human cognition, rules for valuation, meaning of life and the place of a human being in the world. In the times of post-industrial society, philosophy takes on a new form and focuses

on typical economic issues, such as: production, organization, management and marketing. “It happens that from its vast scope, philosophy chooses only a part and treats it with particular attention. This happens because of the significance and weight of this part. This is a science on what is the most important and valuable for humankind” [6]. Philosophy, often understood as abstract consideration of problem solving, reflects our thoughts and is a logical and meaningful reasoning. It is also an antidote to using words with vague, unclear meaning, which result in misunderstandings among people in personal and professional contacts. “The objective of philosophy is to clarify thoughts logically, to define the boundaries of what can and what cannot be thought” [3]. The ambiguity, vague use of syntax – all this leads to losing the clarity of reasoning. “Being wise is the greatest virtue, and wisdom involves telling the truth and acting in accordance with nature, listening to its voice” [7]. From this perspective, it is worth looking at the development of civilisation considering the impact of philosophers’ thoughts, who transformed the world through alternative ideas, presenting only their concept of perceiving phenomena occurring in the world. From the contemporary point of view, one could say that they were not commanders of armies, managers or executives of large corporations, but it was their idea that changed the world order. Their attractiveness awoke another group of enthusiasts ready to develop these ideas and implement them in practice, but they would never have found recognition, had they not been in opposition to the previous ones. Apart from positive emotions, they also aroused negative ones, which made others create still different concepts, which in turn led to the origination of new areas of knowledge contributing to the great arsenal of human achievement.

Looking at the history, one may observe that great economists also created alternative thinking, which, in turn, determined the methods of production. Adam Smith sanctioned the political system of England, pointed to the role of accumulation in the growth processes. His concepts, based on the division of work, became the basis for replacing craftwork with industrial manufacturing. As a result of adopting his theory, Western Europe experienced quick industrialization. Karl Marx opened the way to revolutionary changes in the communities. His radical concepts of economic transformations are still quoted by nearly all revolutionaries. John Keynes presented an innovative way out of crisis in his theories, which was how he initiated the period of economic growth. Furthermore, economists were the originators of alternative doctrines and social movements, among which we could mention: economic liberalism, conservatism, nationalism, welfare state, social democracy, Marxism, neoliberalism. These concepts gave people a choice; they showed how to achieve particular benefits by applying different management methods. In their philosophical legacy, both the famous philosophers and great

economists included specific research methods, which made it possible for their followers to continue the work on expanding new ideas, ways of logical thinking and conducting dialogue and negotiations. One could note that most often philosophers and economists created their concepts on the margin of doctrines valid for their contemporary societies. This fact may be another reason to promote alternative teaching.

The essence of alternative management. Each economic college and university increases the intellectual capital of the society by educating more and more students. Unfortunately, in many cases this capital is not taken into account by the managerial staff of the enterprises. Disregarding the creative potential is also manifested during professional practice, when students perform mainly minor physical tasks. This is when we observe a particular paradox. **Managers usually do not take advantage of the students’ theoretical knowledge precisely because they lack professional experience.** Such conduct may result in the situation when numerous market opportunities will never be noticed or taken into consideration.

In the matrix based on the Ansoff analysis, various management concepts are presented by the criterion of being: passive and active use of material and human resources of a company. This has been illustrated in the matrix shown in Table 3.4.

Table 3.4

Management concepts [Author’s research]

	Material resources	Human resources
Passive management	Management focused on the use of one’s own company assets	Management focused on creating good atmosphere at work
Active management	Management focused on the use of other companies’ assets - outsourcing	Alternative management

Particular parts of the matrix have been defined as follows:

- Material resources – assets defined in the balance sheet;
- Human resources – intellectual capital of the company staff (education, experience, contacts, acquaintances, intelligence);
- Passive management – actions focused on using one’s own resources;
- Active management – actions focused on creating new solutions in the area of company’s functioning;
- Management focused on the use of one’s own company assets is aimed at exploitation of such assets. Machines, equipment, cars and devices are used until the moment when repairs and renovations cease to be cost-effective. The same treatment applies to the company’s staff.

Knowledge of each employee is used only to the extent it is needed for the performance of a particular activity, in accordance with the assigned duties.

- Management focused on creating good atmosphere at work considerably differs from the previous model. In this case, the employer believes that a satisfied employee will be more efficient, more strongly bound to the company, and will better perform assigned work. Everybody knows their scope of duties to perform.

Although the education of the employees is in many cases identical, hardly any of the superiors actually use the intellectual potential of their employees.

- Management focused on using other companies' assets - outsourcing – involves segregating certain functions that the company performs on its own and transferring them to other entities [9]. This allows ones to focus the management processes on principal objectives and key competences of a given organization. “

If there is something we cannot do in a manner more efficient, cheaper and better than our competitors, then there is no point in doing it ourselves; we should hire someone who will do it better”" said Henry Ford [9].

Many activities, and often whole projects related to marketing research, advertising, public relations, ICT, financial management and trainings, which were previously done inside the company, are now commissioned to specialized external service providers.

- Alternative management – attracting stakeholders ready to devote their time, skills and energy to pursue common goals. A way to promote alternative management is a change in the approach to outsourcing.

Converting this notion, we may assume that the originators or profitable ideas may be not only the company employees related to managerial Staff, but also students, who contribute a package of new ideas created on the basis of modern theoretical knowledge.

Execution of alternative management makes it possible for people who are not part of the tight managerial circle to become actively involved in the process of solving marketing-related, organizational and production problems.

With this type of proposals, one should consider the fact that the companies, despite being a private property, also play certain social roles, and their activity should not be limited only to the maximization of their own profit, but should extend to ensuring the wellbeing of the whole society.

Alternative management may generate innovations in local companies, at the same time, boosting regional development. The key differences between traditional and alternative management are illustrated in Table 3.5.

Table 3.5

Key differences between traditional and alternative management [Author's research]

Traditional management	Alternative management
Limiting the creation of variants of solutions to the problems in a company to managerial staff.	Creating a free space for the origination of variants of solutions to the problems in a company.
Competition among particular members of the managerial staff within the existing organization. Combating competition within the company.	Limiting competition within the company and involving third parties in the management process.
Waste of intellectual capital located outside the company.	Taking full advantage of the intellectual capital located in the vicinity of the company.
Use of marketing mix in order to sell manufactured goods.	Creating conditions for introducing innovative ideas on the basis of lateral marketing.

Traditional management systems usually focus on achieving goals set by the managers and motivating employees to deliver better, more efficient work. They are most frequently aimed at using existing material and human resources and more seldom at searching for new concepts outside. In alternative management, this process is reversed.

The key resource, apart from the company staff, is the intellectual capital of third parties (in this case: students), which can be used at a relatively low cost.

The difference in approach to traditional and alternative management may be compared to the concept of traditional and lateral marketing. The former deals with the sales of ready-made goods, whereas the latter searches for new applications of manufactured goods.

The status of waste and passive attitude is consolidated also due to the mindset of the society, which does not prefer active attitudes in the academic environment.

Reasons for this may be grounded in the fact that managers unconditionally believe their own development concepts to be the best and do not accept those who are in the progress of gaining the knowledge.

In the traditional model, the manager is assumed to know best how to solve a problem and motivate his subordinates to perform typical production tasks.

What is neglected here is an important fact that the manager could also inspire others (students) to search for more effective solutions, which will make it possible to transform the existing production structures into more modern ones. Such behaviour among managers could result in the manufacture of innovative goods, which could compete with those offered by large-surface stores.

Concept of the alternative management can be inscribed in wide idea of sustainable development. It deals with justice between generations which is one of the basic rules of Agenda 21, as well as with developing cooperation between students and business.

Because of students (not only scholars) participation in the process, alternative management goes even further than the Agenda, which describes only cooperation within scientific community: „The scientific and technological community and policy makers should increase their interaction in order to implement strategies for sustainable development on the basis of the best available knowledge.

This implies that decision makers should provide the necessary framework for rigorous research and for full and open communication of the findings of the scientific and technological community, and develop with it ways in which research results and the concerns stemming from the findings can be communicated to decision-making bodies so as to better link scientific and technical knowledge with strategic policy and programme formulation.

At the same time, this dialogue would assist the scientific and technological community in developing priorities for research and proposing actions for constructive solutions” [10].

The alternative management, therefore, shows how the guidelines of sustainable development (inscribed in Agenda 21) could be applied to Polish system of higher education and business. At the same time this way of managing could be taken into account as a basis for a long-term process improving graduates employability.

The essence of the alternative management can be briefly described by point 31.3. of Agenda 21. The main task of the alternative management is: „To extend and open up the decision-making process and broaden the range of developmental and environmental issues where cooperation at all levels between the scientific and technological community and decision makers can take place” [10].

Alternative management in practice. It is often required from economic colleges and universities that they should prepare the students to take on managerial roles.

On the other hand, academic teachers are usually required to share their theoretical knowledge in the lectures. Practical classes and tutorials are intended only to expand the material related to a given subject.

As a rule, university studies lack the time for practical learning of the jobs related to management. Future managers do not have the possibility to gain professional skills at workplace, either, because no student will replace a manager when it comes to decision-making, negotiations and creating organizational structures for production, administration or sales processes. The new concept – alternative management – could minimize these weaknesses.

Active teaching would open the way, first, for the students and afterwards for the graduates to be actively involved in the process of creating innovative solutions in companies.

The author of the paper based his concepts on the experiment conducted along with the students in the marketing management class. In the experiment, the students randomly chose a production company and developed an innovative advertising campaign for it.

Next step involved sending different variants of the designed campaigns along with the covering letter to these companies, asking them to evaluate their usefulness in further corporate activities.

As a result, approximately 30% of the students' designs out of the total of 50 proposals sent were noticed by the managers, and some of the students were invited for further cooperation. The content of selected responses, addressed to the students, has been quoted verbatim:

- “Thank you for your interest in our company and for creating very interesting projects. They may require some graphic adjustments, but the ideas themselves are very good indeed. We would like to congratulate you and your colleagues on this project! Some of the materials you sent will definitely be used for advertising purposes. I suggest that we meet to discuss the details in our seat in Tczew (...).”

- “We are very happy that you took an interest in the business activity of our company and that it is supposed to be the tool in your academic work. We took a closer look at the materials you suggested. The proposal seems interesting, especially the idea of an environment-friendly promotional bag. We are interested in certain elements of the project you sent us and we would greatly appreciate it if you could provide this material to us in an editable form. At the same time, I would like to invite you to our company seat in order to discuss the copyright to the design you produced”.

- “We are pleasantly surprised that you wrote to us. The logo is very interesting. It definitely suits our enterprise. Also the words used in it precisely sum up the essence of our activity. We want the recipients of our services to be 100% satisfied with the cooperation with us, that's why we always see to it that the goods reach their destination safely and on time. Your concept is very interesting that's why we believe our enterprise could start with implementing it on our website”.

- “Having become familiar with the proposal, I would like to express my recognition for the creativity you showed when searching for new promotion channels for the company. Indeed, in the multitude of various advertising and promotion opportunities, it is hard to find the right way to reach the customer. Your proposal presents an interesting and innovative form of advertising (...). I believe in the future we will likely use your idea. I am really happy that

during your studies you also deal with practical marketing, apart from the theoretical knowledge, which gives the students the possibility to develop their creativity”.

In order for this idea to be implemented in practice, companies would have to become interested in alternative solutions developed by the students through an appropriate rewarding system, which would make it possible for the students to be fully involved in corporate processes. The managers would have to realise that sometimes rational decision making on the basis of the analysis of economic indicators, obtained from reports and specialized branch research, does not conform to reality. The customers often make unreasonable choices on the basis of the premises that no one else is aware of. This means that people not involved in the decision making process may be more quick to note market niches that can still be filled in. Such observations may create another alternative solution. This reasoning can be illustrated by the following examples:

- Advertising – all stereotypical actions are only an unnecessary burden which restricts creative thinking. This is a field where you rarely go back to old methods of interacting with a client and the reason for it to be simple: old ways become unattractive for the buyer. Alternative advertising (product placement, viral marketing), as well as new marketing concepts (reactive, predictive and shaping needs) [3], have already contributed to the growth of numerous companies. One can definitely risk saying that companies may become interested in unconventional forms of advertising, promotion and management, because further growth most often depends on them.

- Reports from previously conducted research, such as sociological and psychological papers and analysed economic and political situations, one can draw different conclusions from these sources than those inferred by the authors of the research. On the basis of such materials, students may suggest their own projects to companies.

- Considering the properties of the information (processing, summarizing, condensation, compiling, updating, filtering, selection, interpreting, authentication, transferring in time and saving on various media), it is possible to create new solutions with better quality and to show the benefits of choosing one of many options to solve a given problem in a different way.

- Benchmarking [8] – practice applied in management, involving the comparison of processes and practices used by one’s own company with others, regarded as the best in the analysed area. This is not sheer imitation, as it does not involve looking at other’s operational methods in order to copy them in one’s own company. It is rather meant to detect the factors that make the analysed process more effective and then to indicate similar possibilities in one’s

own company. This is learning and creative adaptation of best practices. One could oblige the students to search for the best models for imitation. The students will be able to present good ideas during individual conversations or fairs, festivals and entrepreneurship trade fairs organized by colleges and universities.

Thus, one cannot require that each student should be an outstanding practitioner, philosopher or economist and create new visions for company growth. However, each of them should have a right to present their own achievements and abilities in various areas. In fact, there will be few geniuses among them, and the majority have the intellectual potential within a certain average limit, which would be hard to define with mathematical methods. Still, average people graduate from universities and are able to think logically and have unconventional ideas as regards to solving various problems. Implementing the idea of alternative management in practice, one will be able to use this knowledge potential as a brainstorm to activate the students' and graduates' whole body of knowledge, thus transforming it into intellectual capital which will, in turn, earn profits for the company and for the whole society. Difficulties related to the application of alternative management may arise from the fact that entrepreneurs already have their own concept of company functioning and only want to find people who would help them to implement this vision. The modern enterprise model sometimes resembles the command and control of the economy system, where the management involved fulfilling the orders issued by the Centre. Nowadays, employers have not realised that in the times of post-industrial society, this type of management is no good and educated people do not wish to be constantly subordinated to the employers' will. Lack of opportunities to make use of one's own intellectual resources is undoubtedly one of the reasons for unemployment among young people. It is often the case that development processes are stalled by uneducated people who are afraid of changes and risk, and their only objective is to keep the company on the market.

Failures of the actions related to professional activation are a failure of the employment policy. Sometimes the qualifications of educated people are changed to such that are actually not required in companies. In the times of globalisation, self-employment has hardly any chance of success and no single manufacturer will be a competition for mass production. Promotion alternative management will force a change in the approach to education in higher education institutions and to the use of knowledge resources in a company. It is the managers who have to notice that newly originated ideas may contribute to development of innovative concepts, to company growth and, as a result, to an increase in profits. Summing up, intellectual capital is in fact synonymous to the talents from the Biblical parable [2] and if the society fails to create the conditions in which students can use these talents, it will effectively

condemn part of them to professional exclusion, depression and other pathologies. Frankly speaking, the society as a whole will create an existential living hell for the young generation.

1. Sotto A., Einaudi L. (1962), „Economia Internazionale”XV, p. 35. [w:] J.M. Buchanan, Finanse publiczne w warunkach demokracji, Wydawnictwo Naukowe PWNio – Warszawa.
2. Ewangelia - Mateusz, rozdział 25 – Access mode: <http://www.nonpossumus.pl/ps/Mt/25.php>.
3. Kotler P. (1999), Jak kreować i opanować rynki : Wydawnictwo Profesjonalnej, Szkoły Biznesuio – Kraków.
4. Kuziak M. (2006), [i in.], T. Słownik myśli filozoficznej : Wydawnictwo Park. – Bielsko-Biała.
5. Smith A. (1954), Badania nad naturą i przyczynami bogactwa narodów. – Warszawa, [w:] J. Derek [i in.], Słownik myśli społeczno-politycznej : „PARK”. – Bielsko-Biała – 2004.
6. Tatarkiewicz W. (1993), Historia filozofii : Wydawnictwo Naukowe PWN. – Warszawa.
7. <http://filozofia.tv/filozofia/cytaty/cytaty-f-j>.
8. <http://pl.wikipedia.org/wiki/Benchmarking>.
9. <http://www.iai-shop.com/outsourcing/istota.phtml>.
10. <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>.

PART 4 PRACTICAL ISSUES OF SUSTAINABLE DEVELOPMENT IMPLEMENTATION

4.1 PUBLIC-PRIVATE PARTNERSHIP AS A FORM OF STATE AND BUSINESS COOPERATION IN INVESTMENT SPHERE

Analysis of the current situation in Ukraine shows the presence of many problems in the economic and political spheres. The state is concentrating all efforts on going out from recession, long-term loans returning to international financial institutions and its priorities executing. In such circumstances it is difficult to finance priority projects of the national responsibility towards the development of infrastructure, defense, and social services. Also signing the first part of the agreement concerning expanding of cooperation within European Association, means that state has to update its legislation, input major finance resources on the economic restructuring and support of business, which could restrain realization of preliminary programs in infrastructure and social sphere.

Government tries to liquidate the lack of public funds through the involvement of credit or using fiscal measures. But another alternative solution of this problem is public-private partnership. International practice shows that such cooperation of state and private sector is effective and profitable for both sides.

Public-private partnership mechanism used project finance involving private investors. The largest stake of their investments occupies bank loans. Banks are the strongest financial structures, which have sufficient financial resources available for borrowing. Unfortunately, the Ukrainian experience in this area is absent, because partnership between state and private sector is at an early stage. Accordingly, banks do not actively participate in the implementation of public-private partnership.

Despite the newness of this problematic in Ukraine, economic science has accumulated enough experience analyzing public-private partnership. Some works about impact of such cooperation between the state and the private sector on the economy and functioning of business entities are present in works by M. Avksentev, who thinks that public-private partnership is a modern tool for infrastructure development. A. Holovinov examines the public-private partnership in the sphere of innovations. V. Tertytsya explores the concept of public-private partnership as an effective form of cooperation between business and government.

K. Ratnikov and I. Trofimenko analyze Ukraine's achievements in the field of public-private partnerships and identify possible prospects for its development.

This problem is widely studied by foreign authors. Among the Russian scientists we can mention D. Dementieva, who said that the state's role as a customer of social projects will increase, because of violations against the prevailing mechanisms for the investment projects implementation. Also, the author examines advantages and disadvantages of cooperation between the state and private projects of the firm Magisters.

The study of public-private partnership problems deals Andreas Kappeler, Mathieu Nemoz, and Lukas Strauch. For example, both Andreas Kappeler and Mathieu Nemoz [2] have explored the development of public-private partnership in Europe during several years. In scientists' opinion it is desirable to make "mixed" projects financing during the crisis and be careful, because the risks sharing between the government and the private sector is uneven in such conditions. L. Shtrauh [7] notes that in recent years, public-private partnership was viable with the help of infrastructure development innovative schemes. PPP projects are implemented mainly in Western Europe involving cash sponsors, banks, investors, insurance companies and government directly. But the scientist notes that the potential of Eastern Europe regions is growing, especially in infrastructure development. Therefore, the Ukrainian experience can be replenished results of European researchers, particularly in road infrastructure, education and health, water and wastewater, recycling, energy and others.

The main goal of any enterprise is profit maximizing, which is often achieved by reducing of payments of employees. The state, in turn, should worry about the welfare, promotion and development of the economy. One of the ways for solution in this case is using the concept of public-private partnership (PPP), which can be defined as a form of cooperation of public authorities and private investors for the purpose of the infrastructure objects financing, construction, reconstruction, administration and maintenance.

In accordance with the Law of Ukraine "About public-private partnership" [11] key features of this cooperation are:

- ensuring a high technical and economic indicators;
- long-term relationship (from 5 till 50 years);
- risk transferring by the private partner;
- prohibition on moving the object of PPP during the entire period of such partnership;
- making private investments.

Subjects of PPP are the state, private sector and financial and credit institutions (usually banks). Government agencies operate on non-commercial basis, leaving the responsibility of improving of life quality.

The private sector uses its own or borrowed capital and management resources for the purpose of profit [10]. Banks, in turn, are the source of funds, which are provided for using by private investors.

The main objectives of PPP may be the following: improving of the quality of public and municipal services, reducing of the budget burden, increasing of corporate social responsibility and quality of life [10].

But the main result of the project is that each of the subjects gets its advantage: the state – the performance of its functions, the private sector and banking system – profit.

Distinctive characteristic of public-private partnership is that it is formed to achieve both social and economic purposes.

The aim of PPP is to combine the best practices in public and private sectors for mutual benefits, and variety of types, forms and spheres of implementation of PPP makes it a universal mechanism of solving of different kinds of long-term problems (from creation and development of infrastructure to creation and adaptation of new technologies).

Due to this, in the course of state and business cooperation in the process of realization of state investment policy it is provided:

- innovative approach to the solving of the problem of sustainable development;
- expanding of resource base because of the access to technical, labor, material and financial resources of three sectors such as state, business and society;
- mechanisms that helps to combine all elements of economic system with the aim of effective usage of limited resources to solve important social and economic problems;
- more effective usage of values of every sector to create integrated and sustainable society in accordance with general trends of convergence in social and economic spheres.

Thus, partnership approach creates new possibilities for society development that is based on better understanding of conditions and opportunities of every sector of economic relations and researching of new ways of its implementation in order to achieve the common good.

The mechanism of realization of the concept of public-private partnership is on the germinal stage in Ukraine.

But the experience of European countries illustrates that PPP is an effective mechanism of providing of the social and economic development through the cooperation between government and business.

It should be noted that this form of cooperation is widely used in international practice, especially in Europe, in the process of social-economic problems (Table 4.1).

Table 4.1

Development of PPP in Europe (1994-2013) [1]

Year	Number of projects, unit	Investment, mln. US \$
1994	3	1148,4
1995	12	3264,9
1996	26	8488,2
1997	33	5278,0
1998	66	19972,4
1999	77	9602,6
2000	97	15018,5
2001	79	13325,3
2002	82	17436,2
2003	90	17457,1
2004	125	16879,9
2005	130	26794,3
2006	144	27129,2
2007	136	29597,9
2008	115	24198,0
2009	118	15740,3
2010	112	18300,9
2011	80	15786,7
2012	60	16394,1
2013	80	18242,1
Total	1665	320055,0

Besides, most of this investment projects that were realized in European countries through PPP were oriented on the transformation and development of the infrastructure.

It is provided by the fact that such types of investment projects are identified by the World Bank as a strategic direction in formation and realization of the potential of social and economic development that provides long-term economic growth, and also is an anti-crisis measure in short-term period because the implementation of large-scale infrastructure investment projects allows to create new work places, improve the capacity of metallurgical enterprises and construction industry, service sector etc. [5] PPP projects implemented in such spheres as: transport sector, education and health care, housing, telecommunications, recycling, energy sector and others [12].

Apparently, the number of PPP projects in Europe is quite large. During 1994–2013 it was realized more than 1600 projects with a total capital cost about 320 billion euro.

The activity increase in the implementation of projects observes since 2004, because of joining to the European Union of 10 new members.

Decrease from 2008 is due to consequences of global financial crisis, nevertheless all of the projects were fully finalized. Also, the volume of investment under the contract is growing.

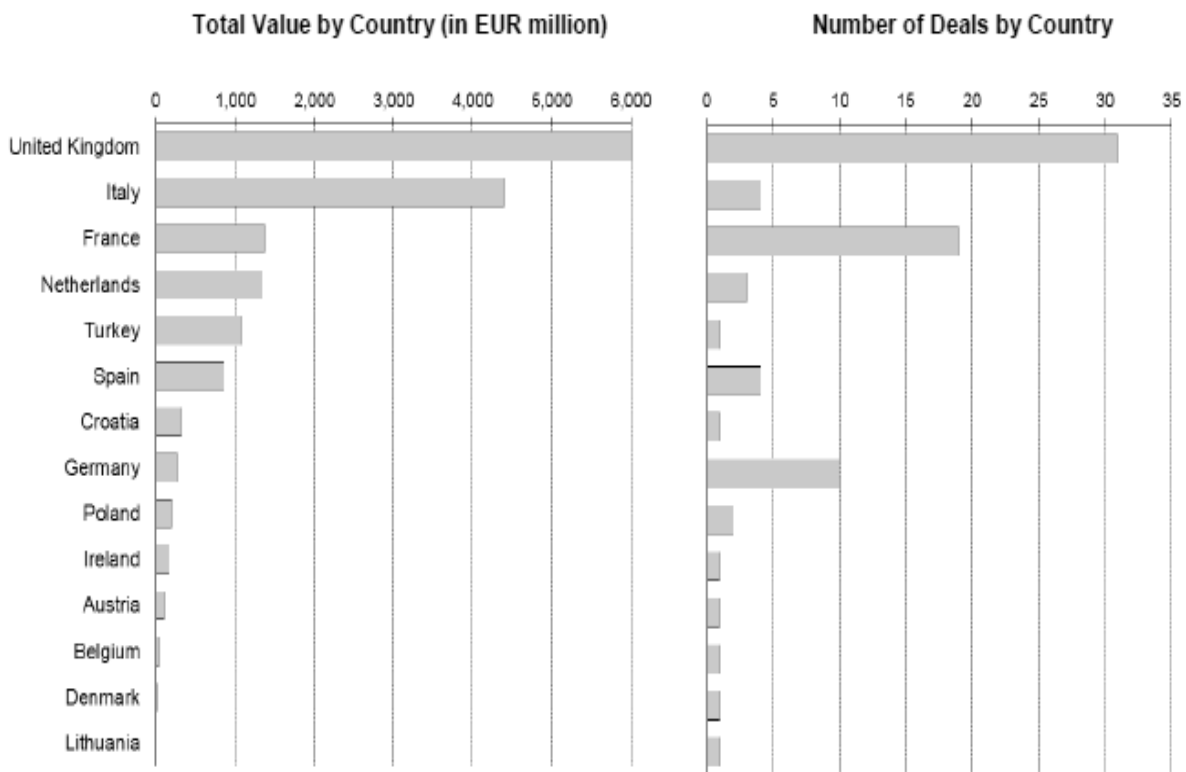


Figure 4.1 – Country Breakdown by Value and Number of PPP Transactions in 2013 [1]

As Figure 4.1 shows, the UK remained the largest PPP market in Europe both in terms of value and number of projects. 31 transactions closed (compared to 26 in 2012) for a value of about EUR 6 billion (EUR 5.6 billion in 2012). In value terms, Italy was the second largest PPP market (EUR 4.4 billion).

Two very large projects accounted for the vast majority of the Italian PPP market by value. With regard to the number of transactions closed, the UK was followed by France with 19 deals (22 in 2012) and Germany with 10 transactions of a relatively small size (6 in 2012). In 2013, 14 countries closed at least one PPP transaction, a significant increase over the previous year (10 countries). Portugal dropped out of the European PPP market, while Austria, Lithuania and Poland returned after a few years of absence [1].

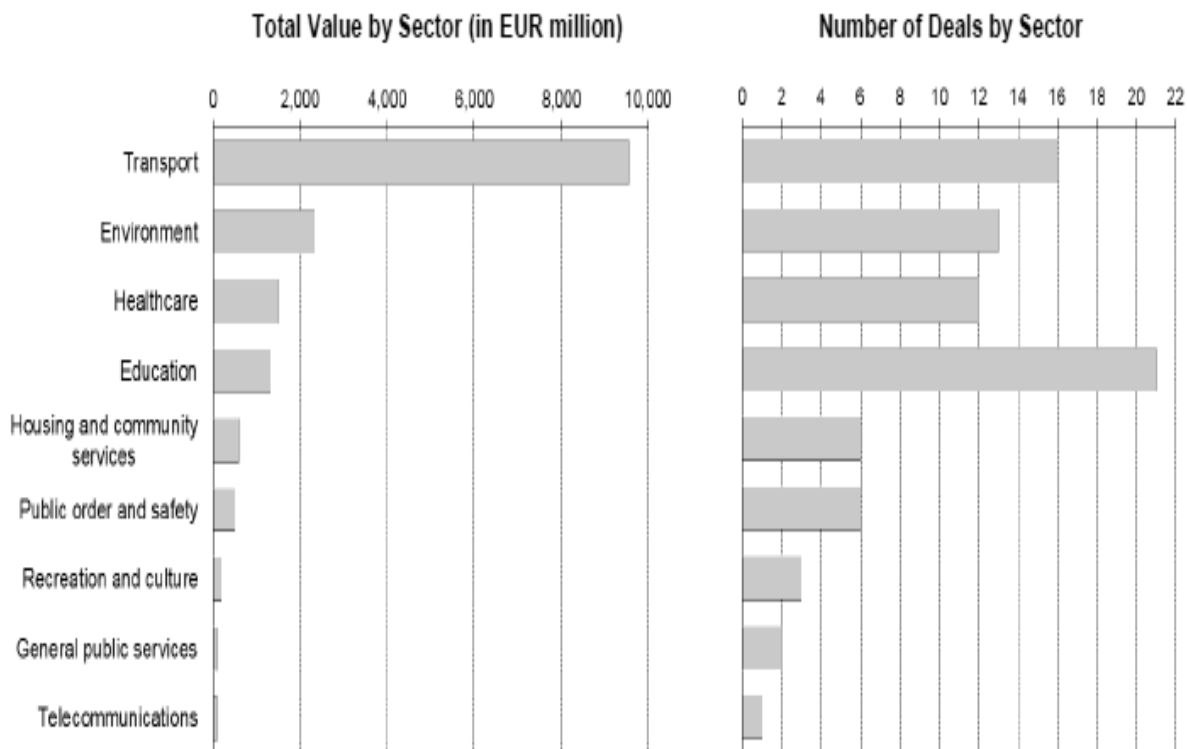


Figure 4.2 – Sector Breakdown by Value and Number of PPP Transactions in 2013 [1]

As it can be seen from Figure 4.2, the transport sector remains the most active in value terms. With EUR 9.6 billion, the sector represents more than a half of the total market value. In addition, five of the six large projects that closed in 2013 were in the transport sector.

The environment sector affirmed significant activity in 2013. 13 transactions closed (compared to 4 in 2012) for a total value of EUR 2.3 billion (EUR 651 million in 2012). In line with the last two years, most of the PPPs in the environment sector were in the UK (10 transactions in 2013).

The healthcare sector was the fastest growing major sector in 2013 in value terms. 12 projects reached financial close in 2013 worth an aggregate value of EUR 1.5 billion (EUR 382 million in 2012).

The number of deals closed in the education sector reached 21, making it the most active sector in 2013 in terms of number of projects. The public order and safety and recreation and culture sectors contracted significantly in value terms (59% and 41% decrease respectively).

For the first time since 2010, one project reached financial close in 2013 in the telecommunication sector (an ultra-high-speed internet PPP in Auvergne, France). No projects closed in the defense or RDI sectors in 2013 [1]. Figure 4.3 illustrates the location of different-sized PPP projects through the countries.

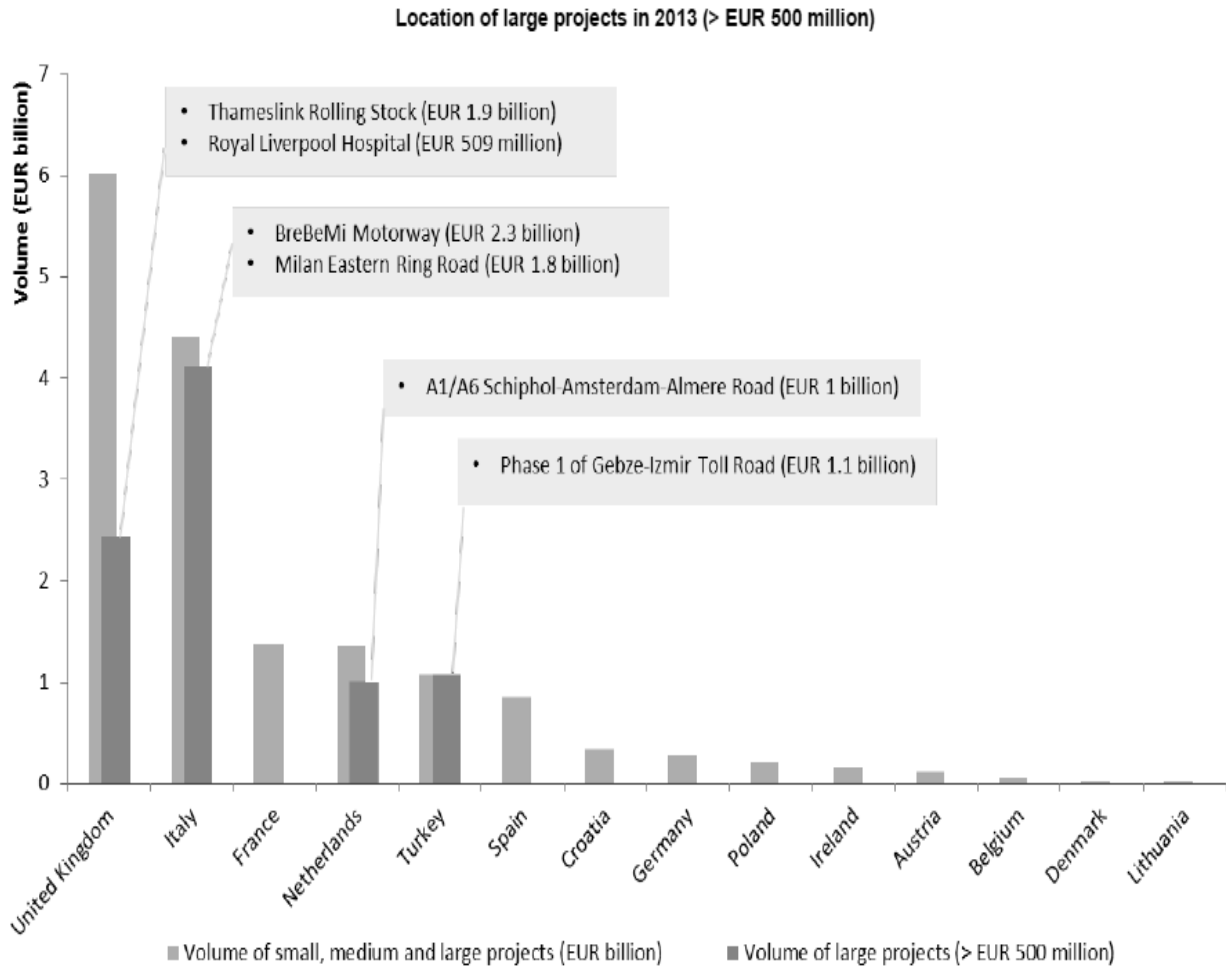


Figure 4.3 – Size Breakdown of PPP Projects in 2013 [1]

After implementation of PPP projects, investors covered their costs and received guaranteed income. In the long term position, investors had the right of partial exemption from taxation (especially of income tax and value added tax), approval of standard forms of contracts or binding elements of such contracts, maximum openness and transparency of PPP projects at the legislative level, risk of transferring by giving it to public sector, relief administrative and other procedures in the future.

It should be noted that in Europe, project financing and investing is making by the European Investment Bank. Table 4.2 provides data, which describing the number of projects and amount of investments by EIB.

Systematic work in this area is observed in such sectors as transport, in terms of building roads, flyovers, bridges, tunnels, airports, education and health.

An example of PPP in railway traffic is building of Adelaide-Darwin railway, which has unite northern and southern parts of Australia.

Also high-speed toll road in Ontario, Metronet Rail in London have been built. An important achievement in the space industry is a project of development and construction of the German satellite TerraSAR-X [8].

Table 4.2

Investment projects financed by EIB in Europe within main sectors (2004-2013) [1]

Year	Sector							
	Transport		Water and sewerage		Other (health, education)		Total	
	Number of projects, unit	Investment, mln. EUR	Number of projects, unit	Investment, mln. EUR	Number of projects, unit	Investment, mln. EUR	Number of projects, unit	Investment, mln. EUR
2004	8	945	1	44	3	738	12	1727
2005	5	1055	0	0	4	421	9	1476
2006	8	1360	2	181	5	1150	15	2691
2007	10	1448	0	0	4	717	14	2165
2008	13	3023	0	0	2	352	15	3375
2009	4	1056	0	0	6	779	10	1835
2010	9	2127	0	0	3	1031	12	3158
2011	7	2525	0	0	1	128	8	2653
2012	5	1195	0	0	1	50	6	1245
2013	7	6884	0	0	17	2003	24	8887
Total	76	21618	3	225	46	7369	125	29212

The necessity of implementation of PPP projects in Ukraine occurs in areas of mining, industry, housing, infrastructure, health, tourism, railways, waterways, air traffic routes, roads and so on.

Obstacles to large-scale implementation of PPP projects in Ukraine (Table 4.3) are distrust of private sector to the state, because the public sector is often characterized as unpredictability and instability partner.

Moreover, Ukraine doesn't have the clear mechanism of preferential tax or partial exemption. But the main problem is the lack of potential large investors who could finance large-scale PPPs. In such situation it is necessary to attract loan capital of banks.

As world experience shows, using of bank loans for implementing of PPP projects is very successful. The unique example is building of high-speed line HSL Zuid in The Netherlands. Total funds contributed by private investors in the project amounted are to 1,2 billion euro. 90% of this sum was financed by commercial banks [13].

Also using of similar mechanism can be seen in the Czech Republic and Slovakia, where the financing of projects carried out mostly by bank loans and raising funds to other financial institutions. This experience can be used for financing of Ukrainian projects.

Table 4.3

Number and value of financing of the PPP projects in Ukraine within main sectors (2004–2012)

[4]

Year	Sector							
	Energy		Telecom		Transport		Water and sewage	
	Number of projects, unit	Investment, US\$ million	Number of projects, unit	Investment, US\$ million	Number of projects, unit	Investment, US\$ million	Number of projects, unit	Investment, US\$ million
2004	0	0	0	738	0	0	0	0
2005	0	0	0	1407	0	0	0	100
2006	1	4	1	865	0	0	0	0
2007	1	83	0	1346	0	0	0	0
2008	1	100	0	1364	0	0	1	102
2009	0	121	0	934	1	130	0	0
2010	4	89	0	413	0	0	0	0
2011	5	998	1	1819	0	0	0	0
2012	16	725	0	440	0	0	0	0
Total	28	2120	2	9326	1	130	1	202

If we consider banking institutions in Ukraine, we see that they have very important position among the subjects of domestic economy. Banks are the source of free cash and have direct access to them. Banking institutions are organized structures that are basis for any kind of financial transactions.

The current number of banks in Ukraine (see Figure 4.4) is suggesting that they may be real lenders to investors in PPPs.

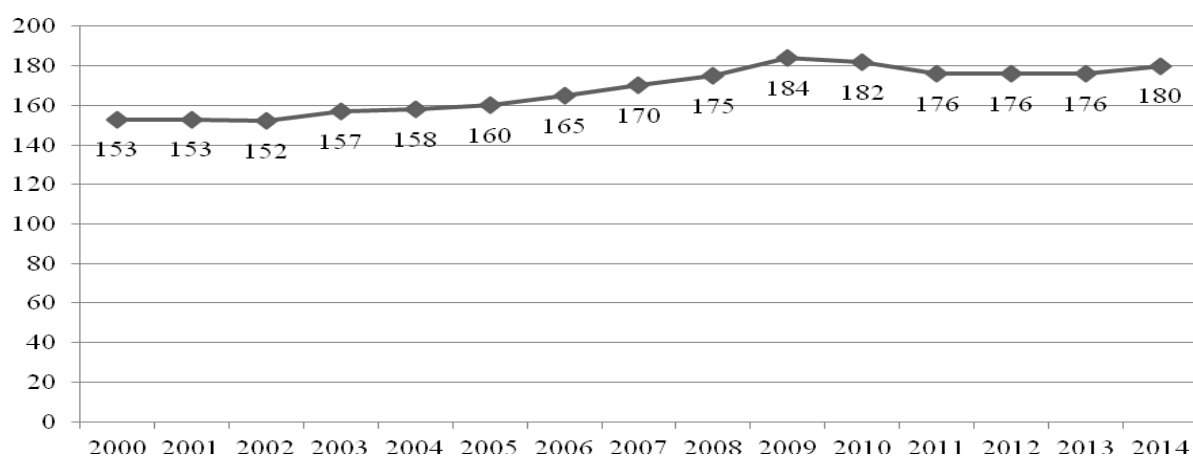


Figure 4.4 – Dynamics of the number of banks in Ukraine, 2000-2014 [3]

But before engaging banking institutions in public-private partnership we should analyze its financial condition over a long period. The global financial crisis has proved that almost all Ukrainian banks, including leaders of the ratings made by the National Bank of Ukraine and

Association of Ukrainian Banks in amount of net income, net interest income, assets, etc. suffered substantial losses. Accordingly, the state should be confident in the reliability and solvency of the banking institution before it concludes PPP agreement with private investors and its creditors.

Nevertheless, the Ukrainian banking sector could propose too less variants to participate in PPP. The strongest Ukrainian banks are not interested in cooperation with government, especially on long-term basis as previous experience showed the high risk and volatility of such relations. However, the involvement of banks to participate in public-private partnership will create the preconditions for their support in post-crisis period.

Researching of Ukrainian banks perspectives indicate that they are able to act as active participants in PPP projects from the stage of competition. Preferences, which potentially can get commercial banks, are guaranteed and highly attractive, but such experience of getting them is only in foreign practice.

During participating in PPP, banks control investors independently and have additional rights, which are guaranteed them by the state. In project financing banks conclude an agreement, which fixed investor's obligation to pay all credits with appropriate interest to the creditor, when the project failed. Also step-in-rights contract can be used, which means replacing the investor in case the investor did not fulfill its obligations according to the contract.

Also the state assumes the risk of exchange rates, lending rates, failure changes, obtaining the necessary arrangements. Immutability of object ownership during the term of the PPP agreement provides banks and private investors more guarantees for the participation in projects.

Implementation of public-private partnership may cause an increase in timing of competitive procedures and the signing of the agreement, and also leads to rising project costs, as banks need to attract a sufficient number of consultants at various stages of the project [10].

Nowadays, the implementation of public-private partnership is particularly important and necessary in Ukraine. Taking into account the strict Ukrainian standby of European Economic Association, the global state purpose is updating legislation and involving the European organizations to participate in Ukrainian PPP projects.

The main player could be European Investment Bank that is aimed to grant the huge financial assets to realize projects in critical for Ukraine spheres such as infrastructure and social sector. Moreover as many investors are now frustrated in the economic and political situation of the country, we observe massive capital outflow abroad.

Thus, an alternative solution of this problem for the state is attracting investors to cooperation with Ukrainian banks that will help greatly to accelerate the implementation of any projects.

Thus, it's necessary to highlight that realization and development of PPP concept in Ukraine will be expanded faster if the special conditions and institutional and organizational elements will be created.

To encourage banks and investors to effective cooperation and elevation of the PPP concept to a qualitatively new level of development government should improve the mechanisms of PPP projects realization, develop a system of national priorities determining in the context of state stabilization, policy realization, solve basic problems that prevent activation of PPP development.

In general, Ukraine has a high potential for public-private partnership implementation. But at the same time constraining factors are the lack of a coherent government policy in the PPP sphere, the lack of flexibility for project participants in making key decisions, and the indifference of the state to encourage investors.

In addition, the adoption of the Law of Ukraine "About public-private partnership" should spur development of such cooperation in the country. But we see that after this the state doesn't do any steps for the PPP development and improvement. In particular, competent authority responsible for PPP's public policy is not clearly established, centers for training in the field of PPP's aren't being created, information base on this issue between the central and local authorities is not developed.

In the future, the development of the careful planning of projects, creating conditions for rapid attract investors and their capital in the economy, ensuring of the state maximum distribution of risks and solving of problems of interest in this area will promote the goal of public-private partnership effective development.

PPP is a potential and effective method to promote social-economic development at all levels of the state, way of raising funds to finance priority and socially significant projects of the state, the tool of building lasting and productive relationships with potential investors.

The cooperation of the state and private sector in the form of public-private partnership will help to create better conditions for the functioning of economic entities, development of strategically important sectors of the economy, funding research and development work, innovation, advanced technologies, their implementation, achieving of best technical and economic performance, provided potential for enterprise development, effective using of available resources in the state, reducing of budget expenditures on infrastructure and development of priorities.

Main areas of projects implementation include housing, water and wastewater, energy services, construction and maintenance of roads, development of health infrastructure.

Main advantages of public-private partnership include: long-term relationships, reducing risks by their distribution among team members, combining of the financial resources of different ownership forms, providing high quality, cheap and guaranteed services, protection of participants.

Disadvantages of public-private partnership are wrong planning, the lack of private sector participation, the impact of state (adverse economic and political status, inadequate or poorly developed legal framework, etc.), the high cost of expenses over the prolonged period (duration of negotiations, contracts, supplies, materials, etc.).

Participation of banks in PPP projects involves numerous preferences, which in general would improve the functioning of the banking sector and would push it to full recovery after the crisis. Main benefits for banks are free choice of the investor for partnership, guaranteed return of the loan with interest in any case, risks transferring to the public sector etc. For attracting banks and investors to effective cooperation and public-private partnership development, the government should improve the mechanisms of PPP, resolve main problems that hinder its development.

1. European PPP Expertise Centre. – Access mode: <http://www.eib.org/epec/resources/Market%20Update%20First%20half%20of%202013.pdf> / [доступ: 2 червня 2014 р.].

2. Kappeler A., Nemoz M. (2010), Public-private partnerships in Europe – before and during the recent financial crisis, EIB: Economic and Financial Report, 1-30.

3. National Bank of Ukraine. Bank supervision. – Access mode : <http://www.bank.gov.ua> / [Accessed 2 June 2014].

4. Private Participation in Infrastructure Database. The World Bank Group. – Access mode : http://ppi.worldbank.org/explore/ppi_exploreCountry.aspx?countryId=97/ [доступ: 2 червня 2014 р.].

5. Private Participation in Infrastructure Projects Database. The World Bank Group. Country Snapshots.– Access mode : http://ppi.worldbank.org/explore/ppi_exploreSector.aspx?sectorID=3 / [доступ: 13 травня 2011 р.].

6. Ratnikov K., Trofimenko I. Business Sense: Progress made in effort to start public-private partnerships. – Access mode : <http://www.magisters.com/publicationfile.php?ua/1248>.

7. Strauch L. (2010), Public Private Partnership in European Road Infrastructure: PPP as Investment Asset Following the M6 Road Project in Hungary, Moskow: Book on Demand.

8. World wide experience in using Public-Private Partnership.– Access mode : http://www.ibser.org.ua/UserFiles/File/NABs/PPP%20presentation_1_Dec26.pdf/ [доступ: 5 червня 2011 р.].

9. Авксентьев М. (2007), Державно-приватне партнерство як сучасний інструмент розбудови інфраструктури, Финансовые риски, 4(49), 36-40.

10. Государственно-частное партнерство (ГЧП) и проектное финансирование. – Access mode : http://ppp-airports.ru/index.php?option=com_content&view=article&id=30&Itemid=53 / [доступ: 13 травня 2011 р.].

11. Закон України “Про державно-приватне партнерство”. – Access mode : <http://zakon.rada.gov.ua/cgi-bin/laws/main.cgi?nreg=2404-17> / [доступ: 19 квітня 2011 р.].

12. Тергиця В. Державно-приватні партнерства як форма співробітництвабізнесу і влади. – Access mode : <http://www.magisters.com/publication.php?ua/683/articles> / [доступ: 5 червня 2011 р.].

13. Федосеев А. Государственно-частное партнерство – международный опыт. – Access mode : http://archive.russia-today.ru/2008/no_15/15_railroads_03.htm / [доступ: 5 червня 2011 р.].

4.2 PROFESSIONAL AND EMOTIONAL COMPETENCIES OF GOVERNMENT OFFICIALS

1. Nature and development of the concept of competence

The new models of organizational development which were resulted in drastic changes in the way of organizations are being managed. The changes in managers' professional responsibilities and functions were faster than they were prepared to be accepted. Presently their day-to-day tasks are "knowledge-based" and managers have to deal with huge amounts of information. Obviously, to be successful managers must be committed to their work and take maximum advantage of all available resources and opportunities.

The accelerating rates of development today require higher levels of adaptability to the new conditions and better competence of all employees. Thus the capacity of organizations to learn, to increase the value of their human resource and to use it efficiently has become of primary importance. Lifelong learning is a strategic goal for the European Union.

Today the leaders and managers who are responsible for the adequate management of their organizations are required to utilize fully the potential of their employees. That is why the employers and experts are increasingly interested in the processes of personnel training and development.

The challenges of contemporary business environment stirred the interest in the knowledge, skills and capacity of administrative staff. Practice has shown that there is a need for setting of certain requirements for professional competence. According to P. Drucker "incompetence, after all, is the only thing in abundant and never-ending supply"[3, p. 175]. Moreover, the introduction of uniform requirements for professional competence will reinforce the principles of objectivity, transparency, equal access and fairness in selection and appointment of managers. That is why the requirements for the competence of administrative staff should be specified in more detailed and companies should adopt more specific and fair

criteria for selection and career development taking into account the specifics of the each position.

However, we should first define what "*competence*" is. According to the online Business Dictionary, competence is "*a cluster of related abilities, commitments, knowledge, and skills that enable a person (or an organization) to act effectively in a job or situation*" [6, c. 348].

Over the past century many scientists (e. g. Thompson, Ellstrom, McCauley, Louton, etc.) have tried to determine the qualities and skills of the efficient administrator or identify the characteristics of the successful manager.

Early research in this area attempted to analyse various managerial position trying to determine what actually administrators do and identify the skills required for each job.

The growing importance of professional competence within organizations created the need for competence assessment and development and performance of forecasting. In 1973 McClelland concluded that the traditional scholastic aptitude tests as well as school grades and certification procedures „1. are not a valid measure for good life and job performance. 2. are often prejudiced against member of minority groups, women or people from lower socio-economic strata of the society” [10, p. 1-14].

Later Boyatzis conducted a research on professional competence based on McClelland's study. In 1981 he analyzed again the empirical data from numerous surveys that distinguished the respondents in terms of their functions and skills. He defined competency: „...*an underlying characteristic of an individual, which is causally related to effective or superior performance in a job*’ which could be ‘*a motive, trait, skill, aspect of one's self image or social role, or a body of knowledge which he or she uses*” [8, p. 21].

What can be inferred from Boyatzis' definition is that he focuses not on the job itself but on the personal characteristics required for it. His model includes the unconscious, conscious and behavioural dimensions of personal abilities in terms of a specific job.

He emphasizes the interdependence between effective performance and professional competency, between the job performance requirements and organizational environment.

In his model an effective action or behaviour is observed when the three critical components of the model are consistent organizational behaviour, professional skills and personal competence.

Each person has certain habits that have become his/her second nature. These habits may become a condition for effective performance.

S. Covey defines "habit" as "the intersection of *knowledge, skill, and desire*. Knowledge is a theoretical paradigm – *what to do and why to do it*. Skill is *how to do it*, and desire is the motivation, or *want to do it*. In order to make something a habit in our lives, we have to have all three” (Fig. 4.5) [4, p. 71].

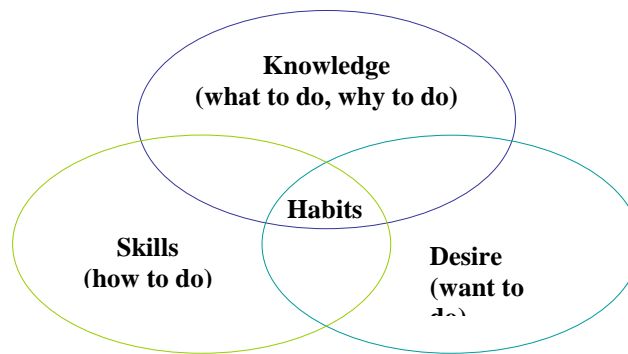


Figure 4.5 – Effective habits acc. to S. Covey [4]

By developing of their knowledge, skills and desire people can achieve a new, higher level of personal and interpersonal competence and develop habits. Habits are not inherent, they are the result of extensive self-development efforts.

Given the desire and willpower, anyone can acquire new habits that would make him more effective, bring him happiness and relationships based on trust. Building of effective habits should be motivated with the achievement of higher professional goals within everyone's freedom of choice.

The freedom of choice between different models of behaviour provides the executive officer with free will the ability to act effectively, regardless of the impact of irrational factors.

Freedom of choice is essential for developing of communication habits and interpersonal relationships.

The lack of communication skills based on knowledge about effective forms of communication, the skills for their implementation and the desire to turn them into actual behaviour can be the reason why people with brilliant intellect are unable to communicate effectively and appear rude, unpleasant, scheming, insensitive and unable to adapt to new environment.

A direct benefit for people whose behaviour is characterized by a high level of professional competence is that they easily establish *trust*. Trust cannot be learned intellectually, it is built over a period of collaboration and emotional understanding. Trust facilitates teamwork, team members' motivation and establishment of partnership relations. When there is no trust, negative emotions such as envy and suspicion can undermine and destroy the atmosphere of collaboration within the team and result in tension.

In such situations people would usually think "if my colleagues envy me and I do not know me how should they know whether I say what I think? On the other hand, if I do not trust them and do not like them, how should I know whether to say what I think?" This is what trust is all about a sense of integrity, confidence, helpfulness and empathy.

Several scientific research works define professional competence in terms of *abilities*. Later these abilities were related to the practical aspects of professional performance. Besides performing well, a professional should also be flexible in order to be considered competent. Based on an extensive research Willis and Dubin define professional competence as "*the ability to function effectively in the tasks considered essential within a given profession*" [11, p. 56]. They outline two broad areas of professional competence: *mastery and general skills*.

Mastery is defined as the comprehensive professional skill that includes knowledge, technical habits and problem-solving skills. General skills are related to individual intellectual skills, personal motivation and values.

The above definitions focus on abilities. Defining competence in terms of abilities is especially important. Considering the above definitions we may in fact define *competence* as "*the ability for excellent performance of a job according to job-specific standards that ensure the success of both the individual and organizational development*".

The main socially significant result of career development is the acquisition of competencies in terms of specific skills for effective solution of typical problems and tasks. Thus competence presumes the availability of certain knowledge, skills and awareness of the size of responsibility and performance. "*Competencies relate to the areas of personal skills that enable managers to carry out their responsibilities by solving (implementation) of specific tasks and thus make profits. Competence may be defined as knowledge, skill, behaviour, quality or personality trait.*" [1, p. 215].

The introduction of compulsory competitive selection of civil servants necessitated the setting of clear and realistic ones for Bulgarian conditions that are measurable and relevant to the requirements for the overall administrative competence of the applicants for such positions.

The overall administrative competence includes *knowledge of the nature, structure and functions of the administration; of the principles and rules for its effective operation as well as the skills relevant to the job position; of the aspects for modernization of the administration according to the requirements for improving the administrative capacity*, i. e. the overall administrative culture beyond the specific professional skills included in the job description that is essential for a successful performance.

The minimum general requirements for administrative competence are essentially *the general administrative knowledge, skills, abilities, personal qualities and skills that are essential for the successful performance of the functions and responsibilities of the position and that the applicants must have prior to being appointed*.

Their presence can be interpreted as a confirmation of the assumption that the basic competencies of civil servants are essentially the same, despite the different responsibilities related to the different administrative structures.

This fact is not only interesting, but also has practical importance because it provides opportunities for unification and optimization of the selection procedures.

The results of an empirical study [7] on the minimum general requirements for administrative competence show that the selection procedures should include assessment tests of applicants' language skills, legislative competence, computer literacy, intelligence and social, communication and business skills.

This, of course, does not mean that all applicants must meet the same requirements, nor that the contents of the exam papers for the different positions must be the same.

However, it means that since a relatively small number of subject-specific assessment materials (assignments or tests) are needed, they can be developed centrally and then used by the administrative structure that needs them.

Such an option can significantly reduce the cost of competitions and facilitate the work of selection boards.

It may also improve the objectivity of competition results because it is very likely that presently the administrative structures could hardly afford to develop a sufficient number of assessment materials that can guarantee valid and reliable assessment of the general administrative competence.

The study has proved that applicants for civil servant positions should demonstrate the set of knowledge, skills, competencies and personal and business skills shown in the table 4.4.

Table 4.4

Minimum general administrative requirements for applicants for civil servant positions

[Author's adaptation based on 1; 7]

Knowledge	Competencies	Personal and business skills
Knowledge of the regulations related to their field	Social and communication skills (team-building and business communication skills)	Consciousness, responsibility, commitment, discipline (determination for the managerial staff)
Language skills and competence (reading comprehension, Bulgarian grammar and spelling)	Intellectual skills (synthesis and analysis of information, critical and innovative thinking)	Psychological and emotional stability
Computer literacy – knowledge of the most popular operating systems and office applications (excl. managers)	Business skills – planning and organization of activities (the functions of the unit – for managerial staff)	Motivation and drive

Let's review the specific competences required for concrete civil servant positions developed within the project of the Public Administration Institute (PAI).

According to the survey [7] the minimum requirements for the general administrative competence of applicants for **managerial positions** (directors and heads of departments or units) are:

1. Knowledge, skills and competences – the successful candidate for managerial administrative position:

- Can identify priority goals and apply effective methods for achieving them foreseeing of the possible consequences/effects;
- Knows the structure of state administration and the functions of government bodies;
- Can understand, interpret and enforce regulations;
- Knows how to plan and organize his activities and the activities of his administrative unit; is capable of giving of clear instructions and setting of performance benchmarks and reasonable deadlines;
- Knows how to assess the qualities and contribution of his inferiors as well as to motivate them adequately and delegate tasks and responsibilities;
- Is aware of and adheres to the basic rules of business communication and negotiations;
- Is comprehensible both orally and in writing;
- Has analytical skills and is able to compile information from different sources and chose the best alternative solution;
- Can work with office applications and Internet browsers.

2. Personal and business skills – *the successful candidate should demonstrate:*

- Determination and willingness to take responsibility;
- Emotional stability and behavioural self-control;
- Focus and self-organization;
- Drive for professional and personal development.

The minimum requirements for the general administrative competence of applicants for the position of "**Chief Expert**" are:

1. Knowledge, skills and competences – *the successful candidate for the position of "Chief Expert":*

- Knows the structure of state administration and the functions of government bodies;
- Can understand, interpret and enforce regulations;
- Is comprehensible both orally and in writing;
- Can suggest effective methods for achieving of the set of goals and foresee the possible consequences/effects;
- Has analytical skills and is able to compile information from different sources and chose the best alternative solution;
- Knows how to plan and organize his activities and is capable of working on several tasks simultaneously;
- Is aware of and adheres to the basic rules of business communication, team building and negotiations;
- Can work with office applications and Internet browsers.

2. Personal and business skills – *the successful candidate should demonstrate:*

- Emotional stability and behavioural self-control;
- Focus and self-organization;
- Drive for professional and personal development;
- Willingness to take responsibility.

Applicants for the position of "**Chief Inspector**" must have the following administrative competences:

1. Knowledge, skills and competences – *the successful candidate for the position of "Chief Inspector":*

- Knows the structure of state administration and the functions of government bodies;
- Can understand, interpret and enforce regulations;

- Is aware of and adheres to the basic rules of business communication and conflict management;

- Knows how to plan and organize his activities and is capable of working on several tasks simultaneously;

- Is comprehensible both orally and in writing;

- Demonstrates critical thinking, can identify problems and apply suitable methods to resolve them;

- Has analytical skills and is able to compile information from different sources;

- Can work with office applications and Internet browsers.

2. Personal and business skills – *the successful candidate should demonstrate:*

- Emotional stability and behavioural self-control;

- Focus and self-organization;

- Drive for professional and personal development;

- Determination and willingness to take responsibility.

Applicants for the position of "**Junior Inspector**" must have the following competences:

3. Knowledge, skills and competences – *the successful candidate for the position of "Junior Inspector":*

- Can understand, interpret and enforce regulations;

- Is comprehensible both orally and in writing;

- Is able to compile information from different sources;

- Is aware of and adheres to the basic rules of business communication and team building;

- Knows how to plan and organize his activities;

- Can work with office applications and Internet browsers.

4. Personal and business skills – *the successful candidate should demonstrate:*

- Emotional stability and behavioural self-control;

- Focus and self-organization;

- Drive for professional and personal development.

5. Emotional competence – characteristics

Undoubtedly, administrative staff, regardless of their position, have different levels of the skills and abilities required for the performance of their functions. There is also a specific ability the people in our country are still not sufficiently aware of it, although the need for it is widely

accepted and is the subject of various research and analyses. It is the so-called *emotional intelligence*. It does not depend on the IQ or the educational level of a person but is acquired through "intelligent management of emotions." It includes the ability for self-control, personal and social competence, motivation and delegation of authority, conflict management, empathy and hope.

Civil servants who are emotionally intelligent make considerable efforts for their own professional development as well as the professional development of their colleagues and are aware of their real capabilities.

The term "**emotional intelligence**" (EI) was proposed by Daniel Goleman. [2] and became widely-known. Emotions are the drive of personal development, they pose challenges and give meaning to our daily routines. Emotions require intelligence, they can be used in such a way as to facilitate achievements.

In classical literature, the problem was stated as the need for "sentimental education", "need of nobility" or "rich sensitivity." In antiquity Confucius (551-479 BC), seeking to impose his doctrine in China and unify the country, wandered for many years collecting historical materials and folk songs.

His sermons recorded by his disciples in a book entitled "Lun-Yu" (Discourses and judgments) were based on his ethical and his political doctrine at the heart of which stands the term "gen" (humanity): "... a moral principle that determines the relationships between people, requires respect for the elderly and to people of higher social status ... Everyone should learn and improve himself morally and rulers are required to provide training and education for their subjects."

In fact, the person who is considered most closely related to the term "emotional intelligence" is Daniel Goleman – a writer from New York. In 1994 he decided to write a book about emotional literacy, and later decided to change the title to "Emotional Intelligence". According to him, it is people's ability to possess a set of characteristics different from the level of intelligence developed over the years.

This set of features is called emotional intelligence: "*qualities such as motivation and resistance to frustration; control over impulses and delay of gratification, control over one's own feelings and the ability to not allow failures to suppress our ability to think; propensity to empathy and hope*" [2, p. 71].

Emotional intelligence does not only mean to know when and how to express an emotion but also how to control it. For example, empathy is a particularly important aspect of emotional

intelligence and researchers know that it contributes to employees' success. Those who can best identify the emotions of others are more successful at their jobs and in their social life.

Customers want representatives who can better listen to them and really understand what they want and what their interests are.

Note, however, that the ability to manage our emotions also means that we must be able to regulate and suppress them as well. According to Mayer and Salovey "*people with a higher level of emotional intelligence are expected to prosper faster due to these abilities and learn from them*" [9, p. 10-11].

According to Goleman these abilities can be arranged in clusters as shown in the figure 4.6.

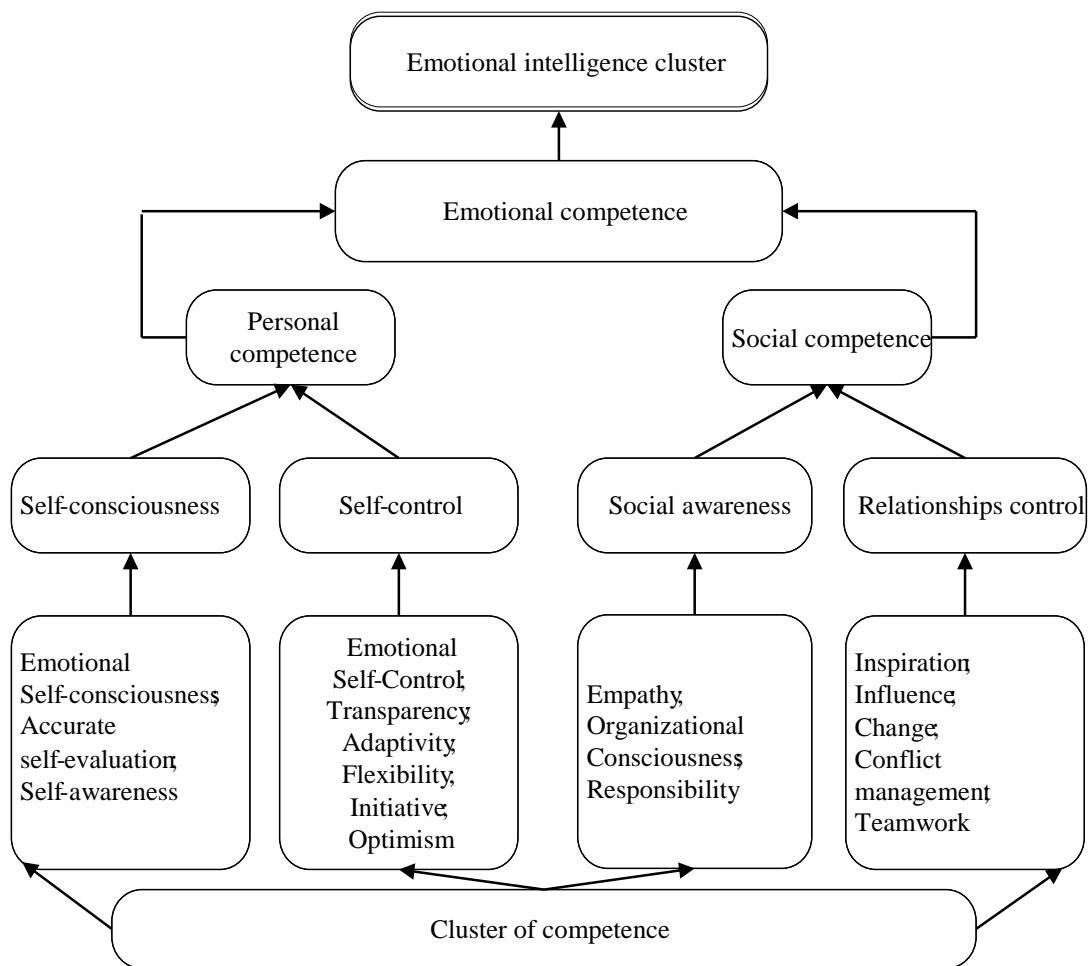


Figure 2. Emotional intelligence cluster

Figure 4.6 – Emotional intelligence cluster

[Author's adaptation based on 2]

Clustering has proved to be an efficient method in business. The same is valid for clustering of feelings and motivation factors.

Researchers define emotional competence as a factor that contributes to employees' success. People who are best at identifying of the emotions of others (i. e. have empathic skills) are more successful at their jobs and in their social life.

In the future assessment of emotional competence have numerous practical applications, the most important of which may be as a measure of job performance. It will spread beyond the boundaries of individuality, going into academia, where it will be studied as a wide range of psychological mechanisms, emotional competencies that will facilitate the achievement of excellent results in life, professional development, family relations and civil behaviour. The future of emotional competence, which underlies emotional intelligence, is to improve job performance and teamwork.

The characteristics of emotional competence that are related to job performance are included in a model in attempts to present the key emotional skills, which, are added to the basic competences, represent the practical skills required for successful job performance (Fig. 4.7).

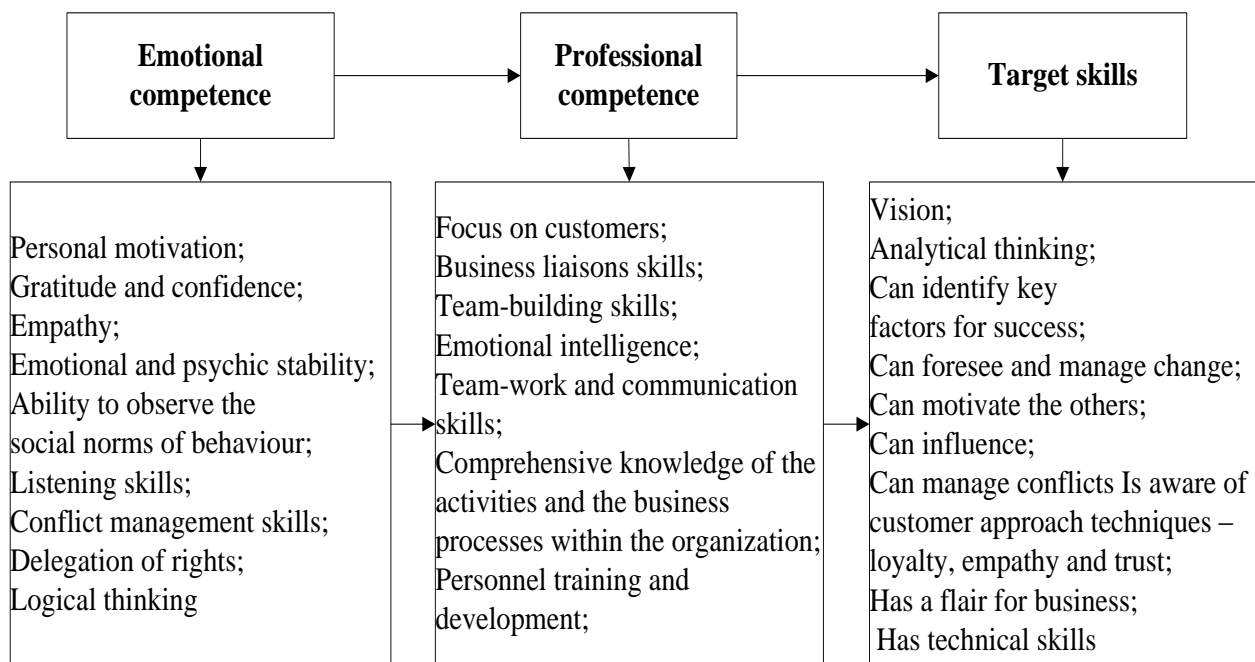


Figure 4.7 – Main groups of abilities improving job performance

[Author's adaptation based on 2; 3]

The above skills are essential in the contemporary rapidly-changing environment in terms of the strategic vision and impartial assessment of the current status and readiness for change –

key target points for development of professional competence in compliance with the European standards.

They are typical for the active, critical and broad-minded people who take responsibility for important decisions in their lives and prepare for work in the information society by increasing of their personal motivation and professional competence.

1. Благоев Д. (2005), Доклад. Изследване модела на управленските способности за определяне необходимостта от обучение на мениджърите в индустриалните предприятия, Свищов, р. 215.
2. Голман Д. (2000), Емоционална интелигентност, София.
3. Дракър П. (2002), Иновации и предприемачество, София.
4. Кови Ст. (1999), Седемте навика на високо ефективните хора, София.
5. Кратка българска енциклопедия, (1996), том 3, София.
6. Милев Ал. и др. (1971), Речник на чуждите думи в българския език, Русе.
7. Joint project of the Public Administration Institute and Open Society Institute (2004), Minimum general requirements for administrative competence, Sofia.
8. Boyatzis R. E. (1982), The Competent Manager: A Model for Effective Performance, John Wiley & Sons, New York.
9. Mayer, Salovey, Sluyter (1997), What is Emotional Intelligence, in Emotional Development and Emotional Intelligence: Educational Implications, by Peter Salovey and David Sluyter.
10. McClelland D. C. (1973), Testing for competence rather than intelligence. American Psychologist, 28.
11. Willis S. etc. (1990). Maintaining of Professional Competence. San Francisco: Jossey-Bass.

4.3 INFORMATIVE SPACE OF INNOVATIVE BUSINESS PROCESSES OF INDUSTRIAL ENTERPRISES IN CONDITIONS OF UKRAINIAN STRUCTURATION

Business-processes of industrial enterprises are developed under the influence of world economic tendencies of globalization and cauterization. Activity of the international industrial giants of small-sized and medium scale domestic enterprises, an openness of economic space have made on them essential impact.

That is they was under the influence of information field which is changeable, chaotic, variable, not structuration.

These processes have provided forming of new approaches to streamlining of information field innovative business processes. It is agreed to its subjects of managing and to approach thoroughly to an estimation of circle of functioning Business-processes of industrial enterprises, are weigh to select from a data file the factors, that have the most essential impact on the enterprise and which are essential. In modern conditions for the purpose of forming of

competitive production industrial enterprises use in the course of structuration of information field such methods, as a method «5x5», a matrix of Wilson, PEST-analysis.

These methods were widespread in the world practice. Therefore there were a necessity for development of the set of factors of an external environment which influenced on business process of the Ukrainian enterprises. Actually it considers modern approaches to consideration of production process.

Such scientists, as A. A. Kyrychenko, S. A. Yerokhin, I. S. Kuznietsova (performance indicators of investment projects, diagnostics of financial potential of the enterprise, efficiency of venture investments) engaged in problems of an external environment estimation, A. P. Mishchenko, V. D. Niemtsov, L. Ye. Dovgan (diagnostics of an external environment of the enterprises), G. A. Peresadko, L. M. Taraniuk (estimate coefficients of confidence of strategy and estimation of strategic potential of the enterprise) [2]. In works of I.V. Vereshchagina, O. V. Raievniewa, H. M. Omelaienko, K. V. Tonieva, N. Yastremska, I. V. Gontareva were macroeconomic indicators, indicators of an estimation of innovations, a standard of living of the population [1, p. 52–92; 13, p. 24–32, p. 96–105, p. 226–233].

A. Koiuda, L. A. Lysenko have offered indicators: GDP, industrial production, production of agriculture, investment into fixed capital, number of the enterprises that are introduced innovations, dynamics number of the enterprises that implement innovations, financing structure of innovation activity, number of implemented innovation products, volume of implemented innovation products, dynamics of coefficient of productivity of innovative costs [3, p. 57-97].

V. M. Grynova, V. V. Vlasenko offered indicators which will estimate innovations, research and development [2, p.9-26]. Z. V. Gerasymchuk, N. T. Rud studied innovative state of the economy of the region on the following groups of indicators: generation of knowledge (an education sphere and sciences), a transfer of knowledge (infrastructure), development of knowledge (production), use of innovations (market) [11, p. 170].

E. Porter, S. Scott suggested to use for estimation of an external environment an innovative index of Malt liquor [12], an innovative index of the State of Massachusetts, V. L. Makarov, O. C. Moskvina, R. D. Atkinson – an innovative index of Mississippi [14], a method of zoning of an innovative profile of the region, the European scale of innovations, an index of development of a mental potential (IRIP), an index of new economy (State New Economy Index) [12]; OSER recommended to use a share of patent payments to universities in general expenses on researches and developments, a part is information – the communication market (in % to gross national product), percent of the value added product in hi-tech industries, the

population participate in additional education (% from inhabitants age 25–64 year), quantity register (commercial) in a year of domain names of «com» [15].

However, information field innovative business-processes of industrial enterprises in new economy (with a primary factor of production instead of fixed capital) was not structured.

A set of factors of the external environment cause positive, neutral and negative changes in activity.

A task of management business-processes of the enterprise timely react to these changes. The verified analytical base is necessary for the purpose of estimation of an external environment which would provide complete reflexing of influence of all essential factors on innovative business-process of industrial enterprises.

Use of the analytical information which is the most complete to reflect the information field Business-processes of industrial enterprises are reasonable by means of a method «5x5», matrixes of Wilson and PEST-analyses (tab. 4.1, 4.2, 4.3). In structuration («technologies of the managing direct and advanced development») one considers creation of structure, start and provision to be more productive than effective functioning in change conditions.

On the maintenance are systematic ones, it is aesthetically reasonable, advanced change of structural elements, communications between them and methods of activity in reply to prediction or actual changes for the sake of an effective utilization of external and internal resources for research of objects in view of self-development.

On the basis of the analysis of the previous definitions structuration of information field innovative business-processes of industrial enterprises we will specify as such which consisted in drawing up of factors of circle of functioning innovative business-processes on degree of and the importance, the management depending on tactical changes of an external and internal environment.

Thus, structuration of information field innovative business-processes of industrial enterprises solved a problem of effective functioning innovative business-processes in the conditions of uncertainty and a randomness of an external environment.

Information field innovative business-processes are represented in table 4.5. The factors can be grouped in five groups:

1) macroeconomic – per capital GDP at current, industrial production indices, consumer price indices, level of use of secondary raw materials, average annual population;

2) innovation - technical – share of P&D performed on own account of total enterprises, relative density of the enterprises that is in traduced innovations, relative density of the

enterprises that implement innovations, cost of P&D work performed on own account per 1000 enterprises, relative density of P&D work performed on own account;

3) financially - innovation – relative density amount of implemented innovation products in total work of the industrial production, share of average monthly wages of employees the able-bodied person, share of labor and social contributions in operational cost of the sold industrial products, requests for objects of industrial property per 1000 industrial enterprises, growth rate of a real wages employees;

4) market-number – growth of costs of innovation activity indices, own sources, central budgets, customers' funds, other sources;

5) solvent – number units in the Unified State Register of Enterprises and Organizations of Ukraine (Business Register), industrial, entrepreneurship, industrial, wholesale and retail trade.

In table 4.6 structuration factors of information field on a matrix of Wilson. Considerable attention factors which were in the field of HH (high probability and high influence), AH (average probability and high influence), HA (high probability and average influence) is needed. In the field of HH are concerned: relative density of the enterprises that implement innovations, purchase of machines equipment on own account that introduced innovations.

Average probability and high influence on business-processes of industrial enterprises, share fixed assets of total balance structure of industrial enterprises, growth rate of a real wages employees. In the field of HA of information field are included: consumer price indices, industrial production indices.

Other factors of information field business-processes of the industrial enterprises included in matrixes of Wilson were of secondary importance at an estimation of information field business-processes of industrial enterprises.

However, if behind factors in fields of HH, AH, HA are observed negative or demanded profound research of a field of a matrix of HL (high influence and low probability, requests for objects of industrial property per 1000 industrial enterprises), AA (average influence and probability, share of average monthly wages of GDP), AL (average influence and low probability, level of economically active population), LH (low influence and high probability, volume of the execute of P&D work performed on own account), LA (low influence and average probability, level of use of secondary raw materials), LL (low influence and low probability – are not considered to influence or business processes). Reasonable construction of a matrix of possibilities and threats with Wilson thus is.

Table 4.5

Factors of influence of an external environment on business-process of industrial enterprises on a method «5x5», 2000-2012 years.

[Author's adaptation based on 4; 5; 6; 7; 8; 9; 10]

Indicator	Year												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Per capital GDP at current, mln. UAH	3436	4195	4685	5591	7273	9372	11630	15496	20495	19832	23600	28806	30901
Industrial production indices, % of the previous year	...	114,20	107,00	115,80	112,50	103,10	106,20	110,20	96,90	78,10	111,20	107,30	99,5
Share of P&D performed on own account of total enterprises, %	0,18	0,17	0,16	0,15	0,15	0,14	0,13	0,12	0,11	0,11	0,10	0,09	0,09
Relative density of the enterprises that are in traduced innovations, %	18,00	16,50	18,00	15,10	13,70	11,90	11,20	14,20	13,00	12,80	13,80	16,20	17,4
Relative density of the enterprises that implement innovations, %	14,80	14,30	14,60	11,50	10,00	8,20	10,00	11,50	10,80	10,70	11,50	12,80	13,6
Relative density amount of implemented innovation products in total work of the industrial production, %	...	6,80	7,00	5,60	5,80	6,50	6,70	6,70	5,90	4,80	3,80	3,80	3,3
Growth of costs of innovation activity indices, % of which	...	112,20	152,90	101,50	148,20	126,80	107,10	176,20	110,50	0,66	101,20	178,20	0,8
- own sources	...	118,20	129,50	100,30	163,00	144,10	103,40	153,50	0,91	0,71	0,92	158,90	0,96
- central budgets	...	in 7,2 r. m.	0,82	in 2,04 r. m.	0,68	0,44	in 4,07 r. m.	126,60	in 2,3 r. m.	0,38	0,69	171,50	1,5

Table 4.5 continuation

1	2	3	4	5	6	7	8	9	10	11	12	13	14
- customers' funds	...	0,44	in 4,5 rivers are more	0,49	0,86	140,50	111,60	182,60	0,36	in 13,1 rivers are more	159,40	0,02	in 17,48 r. m.
- other sources	...	0,94	in 2,8 rivers are more	122,40	in 6,6 rivers are more	0,61	126,50	in 3,6 rivers are more	179,40	0,27	0,68	in 8,5 rivers are more	0,45
Share of average monthly wages of employees, %	80,00	94,00	103,10	126,60	152,50	178,00	206,10	237,90	270,00	256,20	242,80	262,30	266,8
Consumer price indices, Dec. over Dec., %	125,80	106,10	99,40	108,20	112,30	110,30	111,60	116,50	122,30	112,30	109,10	104,60	99,8
Cost of P&D work performed on own account per 1000 enterprises, mln UAH	2,45	...	2,76	3,67	4,16	4,82	4,56	5,18	6,53	6,22	6,95	7,25	7,87
Relative density of P&D work performed on own account, % of GDP	1,16	1,11	1,11	1,24	1,19	1,09	0,98	0,93	0,90	0,95	0,90	0,79	0,8
Growth rate of a real wages employees, % of the previous year	98,60	119,20	118,40	115,30	123,80	120,30	118,30	112,50	106,30	90,80	110,20	108,70	114,4
Share of labor and social contributions in operational cost the of sold industrial products, %	...	...	...	...	...	13,60	12,90	12,60	12,90	11,80	13,10	11,30	...
Level of use of secondary raw materials, %	41,20	...	...	52,20	58,50	65,00	49,00	53,37	43,51	42,53	34,76	34,33	31,83

Table 4.5 continuation

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Average annual population end of year, thsd. persons	48300	48500	480000	47830,9	47470,7	47119,8	46787,7	46509,4	46258,2	46053,3	45690,4	45706,1	45593,3
Number units in the Unified State Register of Enterprises and Organizations of Ukraine (Business Register), end of year, thsd. psc. of which	834,90	887,20	945,00	981,00	1023,40	1070,70	1133,20	1187,00	1228,90	1258,5	1294,6	1323,8	1341,78
industrial, thsd. psc.	90,20	97,60	103,30	108,30	112,50	116,30	119,20	122,80	124,60	125,30	127,50	129,30	128,52
entrepreneurship, thsd. psc.	...	...	...	...	...	...	4230,00	4770,00	5300,00	5790,00	3940,00	2900,00	...
industrial, thsd. psc.	...	...	...	...	...	...	...	...	311,80	328,80	198,50	99,68	70,67
wholesale and retail trade, thsd. psc.	103,20	96,40	89,30	83,80	78,50	75,20	73,60	71,90	69,20	65,30	64,80	64,20	62,2
Requests for objects of industrial property per 1000 industrial enterprises, psc.	221,19	254,30	282,81	331,61	294,56	337,84	388,72	410,92	406,62	336,58	362,85	365,08	49079

... – not available

Table 4.6

Information field business-processes of industrial enterprises on a matrix of Wilson, 2000-2012 years.

[Author's adaptation based on 4; 5; 6; 7; 8; 9; 10]

Indicator	Year													Average value during the period
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	
Share fixed assets of total balance structure of industrial enterprises, %	...	...	...	...	54,4	53,7	52,9	50,3	49,5	47,6	47,6	46,6	54,1	51,31
Industrial production indices, % of the previous year	...	114,2	107,0	115,8	112,5	103,1	106,2	110,2	96,9	78,1	111,2	107,3	98,20	105,06
Volume of the execute of P&D work performed on own account, % of GDP	1,16	1,11	1,11	1,24	1,19	1,09	0,98	0,93	0,90	0,95	0,91	0,79	0,80	1,01
Purchase of machines equipment on own account that introduced of innovations, % of GDP	0,63	0,61	0,83	0,70	0,79	0,71	0,64	1,04	0,81	0,54	0,47	0,80	0,57	0,70
Relative density of the enterprises that implement innovations, %	14,8	14,3	14,60	11,50	10,00	8,20	10,00	11,50	10,80	10,70	11,50	12,80	13,60	11,87
Consumer price indices, Dec. over Dec., %	125,8	106,1	99,4	108,20	112,3	110,3	111,6	116,5	122,3	112,3	109,1	104,6	99,80	110,64
Growth rate of the real wages employees, % of the previous year	98,6	119,2	118,4	115,3	123,8	120,3	118,3	112,5	106,3	90,8	110,2	108,7	114,40	112,06
Share of average monthly wages of GDP, %	0,14	0,15	0,17	0,17	0,17	0,18	0,19	0,19	0,19	0,21	0,21	0,20	0,21	0,18
Level of use of secondary raw materials, %	41,2	...	...	52,2	58,5	65,0	49,0	53,37	43,51	42,53	34,76	34,33	31,83	46,02
Requests for objects of industrial property per 1000 industrial enterprises, psc.	23,90	27,98	30,91	36,61	32,38	36,70	40,89	42,51	41,23	33,51	35,74	35,66	36,58	34,97
Level of economically active population, %	63,2	62,3	61,9	61,8	62	62,2	62,2	62,6	63,3	63,3	63,7	64,3	64,6	62,88

... – not available

Table 4.7

Information field business-processes of industrial enterprises by a technique PEST-analyses, 2000-2012 years.

[Author's adaptation based on 4; 5; 6; 7; 8; 9; 10]

Indicator	Year												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Sociocultural environment													
Growth rate of a real wages employees, % of the previous year	98,60	119,20	118,40	115,30	123,80	120,30	118,30	112,50	106,30	90,80	110,20	108,70	114,4
Level of economically active population, %	63,2	62,3	61,9	61,8	62	62,2	62,2	62,6	63,3	63,3	63,7	64,3	73
Registered vacancies end of year, thsd persons	68,20	96,90	123,90	138,80	166,50	186,60	170,50	169,70	91,10	65,80	63,90	59,30	48,60
Skilled workers graduating, % of the previous year	1,01	1,04	1,01	0,98	1,03	1,01	1,01	0,99	0,95	0,89	1,03	0,97	0,84
Coefficient of a ratio of specialists of the I st -IV th levels of accreditation to works graduating, %	158,3	165,10	181,48	210,23	163,87	179,73	190,63	213,50	231,19	268,21	264,63	260,93	303,27
Technological environment													
Number units objects of industrial property per 1000 industrial enterprises, pcs	221,2	254,30	282,81	331,61	294,56	337,84	388,72	410,92	406,62	336,58	362,85	365,08	381,89

Table 4.7 continuation

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Installing of new technological processes per 1000 industrial enterprises, end of year, pcs	15,55	14,56	11,06	13,68	15,35	15,55	9,61	11,56	13,22	15,11	16,02	19,41	17,03
Introducing of innovations products per 1000 industrial enterprises, pcs	169,9	199,63	221,17	68,48	35,36	27,10	20,20	20,57	19,63	21,43	18,89	25,04	26,48
Introducing of new types of equipment per 1000 industrial enterprises, pcs	7,00	6,25	5,03	6,56	6,84	5,65	6,59	7,17	6,08	5,12	5,20	6,94	7,33
Economic environment													
Industrial production indices, % of the previous year	...	114,20	107,00	115,80	112,50	103,10	106,20	110,20	96,90	78,10	111,20	107,30	99,5
Cost of financing innovation activity, % of GDP	1,03	0,97	1,33	1,14	1,31	1,30	1,13	1,51	1,27	0,87	0,74	1,09	0,81
Consumer price indices, Dec. over Dec., %	125,8	106,10	99,40	108,20	112,30	110,30	111,60	116,50	122,30	112,30	109,10	104,60	99,8
Degree of depreciation of capital assets, %	43,70	45,00	47,20	48,00	49,30	49,00	51,50	52,60	61,20	60,00	74,90	...	...
- industrial, %	48,80	51,90	54,50	56,40	58,30	57,90	58,60	59,00	5,00	61,80	63,00	...	...
Share of labor and social contributions in operational cost of the sold industrial products, %	...	...	...	...	...	13,60	12,90	12,60	12,90	11,80	13,10	11,30	...

Table 4.7 continuation

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Political and legal environment													
Level of use of secondary raw materials, %	41,20	...	...	52,20	58,50	65,00	49,00	53,37	43,51	42,53	34,76	34,33	31,83
Coefficient of duration of the governmental policy	Yushchenko V.A. (22.12.99–29.05.2001) 0,29 (1,43 years)	Kinach A. K. (29.05.2001–21.11.2002) 0,31 (1,56 years)	Yanukovych V. A. (21.11.2002–5.01.2005; 4.08.2006–18.12.2007) 0,69 (3,44 years)	Yekhanurov Yu. I. (8.08.2005–4.08.2006) 0,2 (0,99 years)	Timoshenko Yu. V. (24.01-8.09.2005; 18.12.2007–3.03.2010) 0,56 (2, 81 years)	Turchinov A. V. (3.03.2010–11.03.2010) 0,004 (0,02 years)	Azarov N. Ya. (7.12-28.12.2004; 5.01–24.01.2005; 11.03.2010 – 31.12.2013) 0,72 (3,91 years)						
Coefficient of a ratio of present statutes in failures, %	43,84	41,20	46,69	0,98	in 3,76 rivers are more.	in 4,65 rivers are more	in 5,05 rivers are more	in 5,57 rivers are more	in 6,6 rivers are more	in 6,3 rivers are more	in 11,53 rivers are more	in 20,52 rivers are more	in 29,29 rivers are more
Registered of crimes per 1000 population, pcs	11,76	10,61	9,59	11,84	11,12	10,44	9,15	8,78	8,43	9,54	11,06	11,38	9,81
Emissions of pollutants indices, % -	...	102,40	100,90	101,50	102,20	104,60	108,00	100,00	97,70	89,40	103,60	103,00	0,99

... – not available

In table 4.7 essential and important factors of influence on innovative business-processes of industrial enterprises for PEST-analysis were grouped. They were group in four groups:

1) sociocultural environment – growth rate of a real wages employees, level of economically active population, registered vacancies in the end of year, skilled workers graduating, coefficient of a ratio of specialists of the Ist-IVth levels of accreditation to works graduating;

2) technological environment – number of units objects of industrial property per 1000 industrial enterprises, installing new technological processes per 1000 industrial enterprises, introducing innovations products per 1000 industrial enterprises, introducing new types equipment per 1000 industrial enterprises;

3) economic environment – industrial production indices, cost of financing innovation activity, consumer price indices, degree of depreciation of capital assets, share of labor and social contributions in operational cost of the sold industrial product;

4) political-legal environment – level of use of secondary raw materials, coefficient of duration of the governmental policy, coefficient of a ratio of present statutes in failures, registered of crimes per 1000 population, emissions of pollutants indices.

All these factors had tendencies to growth or reduction, and they can descend, ascend or spasmodic. So, factors had a tendency to growth: growth rate of a real wages employees, level of economically active population, coefficient of a ratio of specialists of the ist-ivth levels of accreditation to works graduating, number of units objects of industrial property per 1000 industrial enterprises, installing new technological processes per 1000 industrial enterprises, industrial production indices, cost of financing innovation activity, emissions of pollutants indices, coefficient of a ratio of present statutes in failures. They positively influenced business-processes of industrial enterprises in Ukraine. Consumer price indices, registered of crimes per 1000 population tended to decrease, however the changes of business – processes are positive for innovation.

Such factors had decreased in indicators affected functioning innovative business processes: registered vacancies, introducing innovations products per 1000 industrial enterprises, introducing new types equipment per 1000 industrial enterprises, share of labor and social contributions in operational, cost of the sold industrial products, level of use of secondary raw materials. Degree of depreciation of capital assets grew, but made negative impact on business-processes of industrial enterprises. Coefficient of duration of the governmental policy testified that political and legislative activity in Ukraine had signs of a

randomness and instability. Therefore development of long-term forecasts is inexpedient rather than innovation of business-processes of industrial enterprises. The best is the period for forecasting of changes of information field of innovative business-processes of industrial enterprises – 1,3–1,4 years.

It is possible to draw the following conclusions: 1) structuration of information field of business-processes of industrial enterprises solved a problem of effective functioning of innovative business-processes of industrial enterprises in the conditions of uncertainty and a randomness of an external environment; 2) factors of an external environment were grouped in groups in type on the basis of a method «5x5» (macroeconomic, innovation-technical, financing-innovation, market-numbers, solvent), of Wilson's matrixes (high, average, low probability and influence) and PEST-analyses (sociocultural, technological, economic, political-legal and degrees of importance); 3) management of information innovative field is necessary for performing of business-processes of industrial enterprises on a basis of the system – the process approach, i.e. directly to manage not one or two factors, and separate groups of factors; 4) between the offered factors there is a dependence which is corresponded to the concept of causality on Granger, in which all factors were interconnect and influenced against each other, and it is difficult to structure causes and effect relationships between them. On the variety of situations the same factor could cause or a consequence of concrete action.

1. Gontareva I. V. (2011) System efficiency of functioning and development of industrial enterprises: monograph, Kharkiv PH «ENGEC».
2. Grineva V. M., Vlasenko V. V. (2005) Organizational problems of innovative activity at the enterprises: monograph, Kharkiv PH «ENGEC».
3. Koiuda V. A., Lysenko L. A. (2010) There are more innovative activity of the enterprise and estimation than efficiency: monograph, Kharkiv PH «ENGEC».
4. Osaulenko O. G. [under editor] (2006), Statistical yearbook of Ukraine for 2005, K.: «Avgustr Trade».
5. Osaulenko O. G. [under editor] (2008), Statistical yearbook of Ukraine for 2007, K.: «Avgustr Trade».
6. Osaulenko O. G. [under editor] (2009), Statistical yearbook of Ukraine for 2008, K.: «Avgustr Trade».
7. Osaulenko O. G. [under editor] (2010), Statistical yearbook of Ukraine for 2009, K.: «Avgustr Trade».
8. Osaulenko O. G. [under editor] (2011), Statistical yearbook of Ukraine for 2010, K.: «Avgustr Trade».
9. Osaulenko O. G. [under editor] (2012), Statistical yearbook of Ukraine for 2011, K.: «Avgustr Trade».
10. Osaulenko O. G. [under editor] (2013), Statistical yearbook of Ukraine for 2012, K.: «Avgustr Trade».
11. Rud N. T. (2011) Innovative infrastructure of the region: theory, methodology, practice: monograph, Lutsk, RVV LNTU.
12. Stern Scott, Michael E. Porter (2002), National Innovative Capacity, Washington DC Council on Competitiveness.

13. Yastremska O. M., Vereshchagina I. V. [under editor] (2010), Management of innovative activity: the monograph, Kharkiv PH «ENGEС».

14. [http: / www.vcc.ac.ru / php/jou/autors/moskvina.php](http://www.vcc.ac.ru/php/jou/autors/moskvina.php) / [access 23.01.2014]

15. [http: / www.neweconomyindex.org/states /2002 /index.html](http://www.neweconomyindex.org/states/2002/index.html) / [access 23.01.2014]

4.4 CREDIT SUPPORT IN THE FINANCING OF INVESTMENT ACTIVITY OF UKRAINIAN ENTERPRISES

The development of national economy of Ukraine depends on the investment activity of its business entities, because investments are the basis of any production and economic activities to create added value. Investment activity depends on many factors, but one of the main constraining factors is the availability and accessibility of investment resources for companies. The basic investment resources are savings and emission. However, in recent time direct investment by the owner of the primary investment resources in production and economic activities of the company-legal entity is probably the exception rather than the rule. In general, before being changed into investments they go a long way with the regular transformations in various instruments of financial market. The attention in this study focuses first of all on credit financing of investments. Attention focusing just on the credit channel of investment resources transformation for investment is conditioned by the need to assess its real impact on the economy of Ukraine. Researches of special aspects of the financial market development of Ukraine indicate that the dominant component is its banking system [1]. Banks accumulate investment resources in the form of household savings and facilities emission by the state and redistribute them to the crediting of enterprises-residents, non-residents, consumer crediting etc. The above activities of banking institutions have different effects on investment activity in the country. Consumer crediting, especially on condition of high propensity to import, is withdrawal of resources from the investment sector. Provision of funds to the non-residents stimulates the economy of another state through withdrawal of domestic resources.

Before turning directly to the presentation of the research results we need slightly concretize methodological positions from which it was conducted. First of all, the authors do not agree with the interpretation of investments included in the Ukrainian legislation where investments are investment of capital for receipt of profit or achievement of social effect [8].

More logical and reasonable is of John Maynard Keynes's approach, who treats investments as a volume growth of productive assets [7]. Therefore on investment activities of

Ukrainian enterprises as on sources of its financing we can judge according to the data of consolidated balance sheet which shall be published by the State Statistics Service of Ukraine (DSSU). In particular we used information from the website of this authority [10] and the Statistical Yearbook of Ukraine for 2007.

The growth of total assets is a volume indicator of resources invested in the business entities activity.

During the movement of our attention from the growth of productive assets of enterprises as a consequence of their investment activity to the primary investment resources it is necessary to evaluate capital formation sources of business entities as one of the intermediate forms of so-called “embodiments” of investment resources.

Terms and sources of attraction of this or that part of the capital had a fundamental importance for us, because only in such a way it is possible to monitor the whole transformation process of investment resources for investment, to identify problems and weaknesses of the credit channel operation. Data on the growth of assets of Ukrainian enterprises and sources of their financing for the years 2006-2012 are presented in the Table 4.8.

Table 4.8

Increments of assets and financing sources of Ukrainian enterprises in 2006-2012
(at actual prices excluding banks and budget institutions), UAH million [10]

Article	2006	2007	2008	2009	2010	2011	2012
Total increments of assets (financing sources)	368173,9	651999,3	750872,1	431106,1	421349,2	578727,6	745171,9
Owned capital	129601,3	249068,7	82835,8	135871,7	157345,5	159574,9	319204,4
Expenses and payments cover	9545,7	15307,8	11296,1	6458,3	10555,5	19265,7	10058,7
Long-term obligations	76940,1	137080,0	227771,5	30283,8	66796,6	99065,9	122659,0
Current obligations of everything, including:	149773,8	246962,3	427577,3	256295,5	186199,3	291570,8	290515,2
- short-term bank lending	-	-	-	-3515,5	1498,6	49411,8	41786,8
- bills payable	112217,7	192476,3	453598,8	246873,9	168586,6	243022,7	226469,2
Deferred income	2313,0	3580,8	1391,1	2196,8	452,3	9250,3	2734,6

The main source of financing for investment activity of Ukrainian enterprises during 2006-2012 was bills payable. Due to its growth nearly 42% of additional volume of assets is financed. Sources following in decreasing order of importance are owned capital and long-

term obligations. In the sum three articles of liabilities are provided 92,1% of increments of assets. Significantly, the short-term bank credits are provided assets growth for the period of 2009-2012 only on 4.1% of its total amount.

The specific dominance of bills payable in the financing sources of increments of assets requires special attention. First of all we should understand one of the main differences between data of balance of the Ukrainian enterprises from balance data some of them. In relation to individual enterprise amounts of receivables and payables show relations between a loan and certain values. In another words, 1 hryvnya (UAH) of debt reflects transfer of values for 1 hryvnya (UAH). In summary statistics concerning balances the cumulative effect is observed.

If the same value will be transferred under the terms of commercial loan in chain order of enterprises, the amount of receivables and payables is shown on the balances of several companies. Thus the statistical sums of receivables and payables do not show commercial lending volumes, but commercial lending volumes are multiplied by the number of participants in the chain of values movement.

Another important feature of receivables and payables is its identity. In accordance with the dual aspect convention receivable of some entities is payable other and vice versa. The difference between their volumes can be explained only by the relationships of commercial loan between enterprises and entities which debt is not displayed by the corresponding statistics. Under domestic conditions such entities may be individuals, banks and government agencies, foreign persons. Table 4.9 contains main indicators of the formation of receivables and payables in Ukraine.

As we see from the statistics Ukrainian enterprises are net borrowers in relations of commercial loan. Volume excess of payable over receivable indicates about attraction of resources at other persons.

Foreign contracting parties of domestic enterprises have a greater impact on formation of their bills payable. The share of trade credits of foreign firms in total net payables of domestic business entities during the period 2006-2012 has increased from 29% to 46%. Therefore almost half of the resources involved by the domestic legal entities in the form of commercial loan are received from foreign partners.

Statistics on receivables and payables of government agencies will be released by the State Treasury Service of Ukraine since 2011, and even only for the State budget. However the presented outstanding amounts of government agencies allow to assume slight impact of this sector on the sums of commercial loan of enterprises.

Table 4.9

Receivables and payables in Ukraine, UAH million [3; 9; 10]

Indicators	2006	2007	2008	2009	2010	2011	2012
Receivables of Ukrainian enterprises	533104,3	725762,0	1022104,2	1217480,3	1374591,4	1499275,4	1701397,3
Bills payable of Ukrainian enterprises	661755,9	858963,1	1180113,4	1426987,3	1595573,9	1838596,6	2065065,8
Outstanding balance of Ukrainian enterprises (net payables)	128651,6	133201,1	158009,2	209507,0	220982,5	339321,2	363668,5
Debt of Ukrainian enterprises to foreign entities for short-term trade credits	36748,9	37688,2	47442,7	84690,3	107884,5	139321,5	167571,3
Outstanding balance (net payables) of government agencies for the State budget	-	-	-	-	-	-985,8	150,0

Banking statistics in the context of receivables and payables is not being released. We can assume that the number of banks in the formation of receivables and payables of enterprises is insignificant which arise from the specific of their activities. Total amount of non-financial obligations of banks for January 1, 2013 made UAH 3743,6 million, and the sums of receivables did not exceed UAH 5835,1 million [5].

Taking into consideration the above we can conclude that a significant part of net payables of Ukrainian enterprises (somewhere at the level of 50%) is formed at the expense of individuals.

An important source of resources for investment activity of companies is a bank lending. Information on the role of bank loan in providing of investment activity of Ukrainian enterprises is presented in the Table 4.10.

As we can see the expense of bank loans formed a significant part of the resources of enterprises in Ukraine. In 2006-2012 the growth of assets of enterprises was for 12.5% financed of through bank lending. The dynamics of the share of bank loan in financing the addition of enterprise resources is indicative. In the pre-crisis period it was significantly higher than after 2008. Economic vicissitudes moved and maybe even forced domestic banks to slow lending business entities.

Table 4.10

Key indicators of investment activity bank lending for enterprises of Ukraine in 2006-2008 [4]

Indicators		Years						
		2006	2007	2008	2009	2010	2011	2012
Total loans granted by banks to business entities of Ukraine	UAH million	160503	260476	443665	462215	500961	575545	605425
	% from liabilities side of the balance-sheet of enterprises	8,7	10,5	13,7	12,6	12,2	12,3	11,2
Loan growth for year	UAH million	54427	99973	183189	18550	38746	74584	29880
	% from liabilities side growth of the balance-sheet of enterprises	14,8	15,3	24,4	4,3	9,2	12,9	4,0
Short-term loans granted by banks to business entities according to the data of the National Bank of Ukraine	UAH million	72050	107921	190299	199323	208201	251298	296547
	% from current liabilities	9,3	10,6	13,1	11,7	11,0	11,5	12,0
	% from liabilities side of the balance-sheet of enterprises	3,9	4,3	5,9	5,4	5,1	5,4	5,5
Short-term loans growth	UAH million	25022	35871	82378	9024	8878	43097	45249
	% from the growth of current liabilities of enterprises	16,7	14,5	19,3	3,5	4,8	14,8	15,6
Long-term loans granted by banks to business entities	UAH million	88453	152555	253366	262892	292760	324247	308878
	% from long-term liabilities	41,4	43,5	43,8	43,2	43,3	41,9	34,4
	% from liabilities side of the balance-sheet of enterprises	4,8	6,1	7,8	7,2	7,1	6,9	5,7
Long-term loans growth	UAH million	29405	39786	75008	3289	17576	20298	-9239
	% from the growth of long-term liabilities of enterprises	38,2	29,0	32,9	10,9	26,3	20,5	-7,5

Approximately half of bank loans is granted to enterprises for short term (till one year). The share of short-term bank loans in total amount of financing sources of business entities gradually increases.

The bank loan is important for providing of the domestic enterprises with long-term borrowed reserves. More than 40% of long-term obligations were formed due to this source in 2006-2011. However there is a down trend of this indicator. In 2012 in general there was a sum reduction of banking claims on long-term loans granted to business entities.

For the purpose of full understanding of the role of banks and bank credit in the conversion of investment resources into investments and financing, thus, in development of the Ukrainian enterprises and national economy, we should consider the specific formation of the resources of the banking system.

Statistics of the National Bank of Ukraine insufficiently represents the process of capital formation of banks, therefore their general role as a system for attraction or milking investment resources of Ukrainian economy can be estimated only indirectly through comparison of other indicators, in particular by comparing of the volume of credits and deposits (Table 4.11).

The provided data allow to conclude that the considerable part of resources of the banking system of Ukraine is formed out of deposits market. The combined share of attracted deposits, owned capital and loans of the National Bank of Ukraine gradually increased, but by the end of 2012 provided only $\frac{3}{4}$ of banks capital. It allows to assume with a high probability that the sources of attracting quarter of resources of Ukrainian banks are foreign (probably in the form of loans).

Internal sources that are not included in the table are insignificant, especially joint liabilities of banks under debt securities at the end of 2012 made only UAH 11038 million that is not comparable to the amount of UAH 274, 984 million.⁶

It is important also to note that the bank capital is directed mainly to enterprises-residents lending. Amounts of the loans granted to them in 2012 more than three times exceeded amounts of the deposits attracted from them. Deposits of households generally were more than the amounts of their lending and over the last years the gap diverges.

This means that the part of the savings of the population, which is redistributed through a banking system, assumes greater importance as an investment resource.

All of the aforesaid concerning participation of a banking system in investment process allows to note its positive role. Banks of Ukraine accumulate significant amounts of financial resources from domestic sources and give them primarily investment orientation. Besides, due to attraction of foreign funds they increase the resource base of investment activity approximately by a third.

Table 4.11

Assets and liabilities of the banking system of Ukraine, UAH million [7]

Indicators	2006	2007	2008	2009	2010	2011	2012
Total bank assets (liabilities)	340179	599396	926086	873450	942084	1054272	1127179
Capital sources (liabilities)							
Owned capital	42566	69578	119263	120208	146100	155487	170196
Loans of the National Bank of Ukraine	1174	1566	60815	87246	74887	74603	78908
Total deposits of	194267	300222	404863	375567	442578	524974	603091
- enterprises-residents	75375	112500	139344	112269	137425	177472	197149
- households-residents	108860	167239	217860	214098	275093	310390	369264
- government authorities of Ukraine	1682	4136	2536	8586	4132	3894	5929
- non-residents	8350	16347	45123	40614	25928	33218	30749
Other sources	102172	228030	341145	290429	278519	299208	274984
Capital consumption (assets)							
Non-financial assets	-	36565	49757	58728	65332	73293	78861
Loans to	248680	433607	747107	740265	747765	806732	818984
- enterprises-residents	163216	266477	453520	476291	514468	592053	621710
- households-residents	82010	160386	280490	241249	209538	201224	187629
- government authorities of Ukraine	4	4	12	5755	8817	8532	5803
- non-residents	3450	6740	13085	16970	14942	4923	3842
Comparison							
Excess of amounts of loans over deposits	54413	133385	342244	364698	305187	281758	215893
Excess of amounts of loans to residents over amounts of attracted from them deposits	59313	142992	374282	388342	316173	310053	242800
Excess of amounts of loans to enterprises-residents over amounts of attracted from them deposits	87841	153977	314176	364022	377043	414581	424561
Excess of deposits amounts of households-residents over amounts of their lending	26850	6853	-62630	-27151	65555	109166	181635
Excess of deposits amounts of government authorities of Ukraine over amounts of their lending	1678	4132	2524	2831	-4685	-4638	126
Excess of deposits amounts of non-residents over amounts of their lending	4900	9607	32038	23644	10986	28295	26907

The last segment of the credit relations, to which else the attention within this research almost was not paid, is the market of debt securities. The Stock market of Ukraine, in terms of which it operates, remains insufficiently developed, but gradually becomes increasingly important in national economy. Dynamics indicators of the bond issue in Ukraine are presented in Figure 4.8.

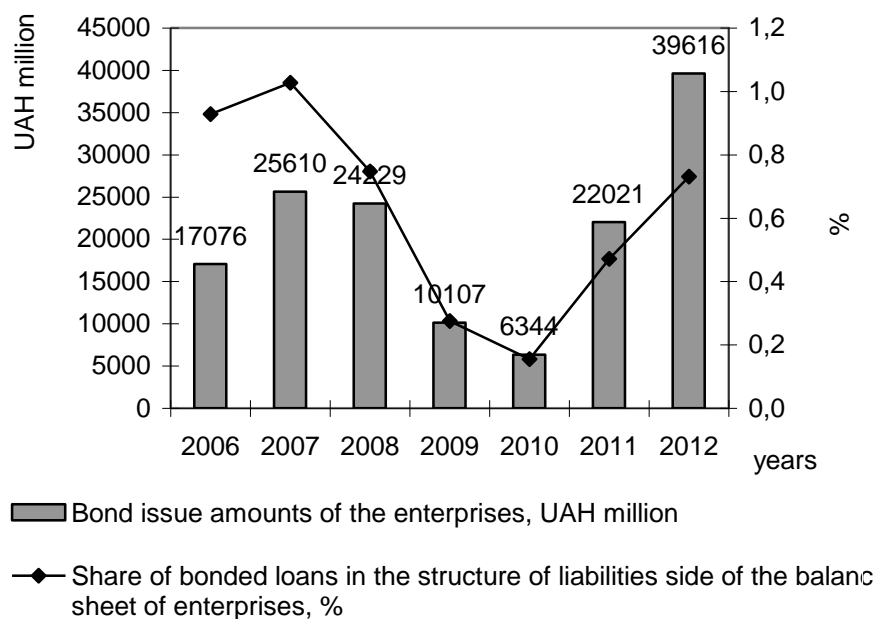


Figure 4.8 – Main indicators of bonded loans in Ukraine in 2006-2012 [2]

The data testifies that the bond issue is an inessential source of credit resources attraction by Ukrainian enterprises for financing of their development. The main reason for this is the underdevelopment of stock market of this State, but according to our invincible belief the basic cause is insufficiency of investment resources in the Ukrainian economy.

This research testifies that the main sources of credit resources of the investment focus in Ukraine are the means of households which are redistributed through a banking system and are attracted in the form of bills payable. In the same way the considerable sums of foreign financial resources arrive to the activity of domestic business entities.

But resources which are under the supervision of the Ukrainian State have no essential value for development of its economy.

Practice of issue lending in Ukraine began to go into gear only in the period of the crisis developments of 2008-2009 when the National Bank of Ukraine due to lending supported stability of a banking system. But by the end of 2012 the loans of the National Bank of Ukraine made only 7% of the cumulative capital of banking institutions.

Government agencies in 2012 were rather consumers of lending resources, than creditors. And in general, participation of the State in financing of investment processes remains extremely low. Even according to official statistics, according to which quite doubtful list of expenses apparently of consumer character is included to investments, in 2012 government expenditures on investment made rather more UAH 26 billion. Taking into account that

government bodies and off-budget funds put together in Ukraine in 2012 redistributed 44,6% of the gross domestic product (moreover the most part of resources was withdrawn from the enterprises in the form of obligatory payments), such apathy in relation to investment activity is unacceptable. It appears that the Ukrainian state has double standards to the Ukrainian business. Concerning formation of fund of means controlled by the state it lives according to the Soviet standards, trying to take away everything, but when there is a need for support of economic development; it is a time to remember the market principles and minimization of the state intervention in the economy.

Summing up, it should be noted that the credit role for development of national economy of Ukraine is very high. Due to credit leverages there is a mobilization and redistribution to the investment sphere of considerable amounts both internal and external resources. However not all range of the credit relations in Ukraine is developed. Practical lack of available funds at business entities and population causes underdevelopment of stock market and weakness of bonded loans as a source of financing for enterprise activities. And perhaps the worst is a situation with the state credit. As the leverage of stimulation of economic development it is used not in full. Public investment costs are unacceptably low, and credit programs are financed not in full, are episodic, and process of appropriation of funds is not transparent. We consider that a reserve of development of the credit sphere of Ukraine is the expansion of programs of the state crediting of investment needs of business entities which is reasonably to carry out with a considerable bias to tools of bonded character that simultaneously would encourage the development of the stock market.

1. Abakumenko O. V., Lukiushko P. O. Determinants of development of the market of financial services of Ukraine / O. V. Abakumenko, P. O. Lukiushko // Chernihiv scientific magazine. Series 1, Economics and Management. – No. 1. – 2011. [Electronic resource]. – Access mode : <http://www.chasopis.geci.cn.ua/uk/component/k2/item/13-determinant-rozvitku-rinku-finansovih-poslug-ukraini/13-determinanti-rozvitku-rinku-finansovih-poslug-ukraini.html>.

2. Annual accounts of the National Securities and Stock Market Commission // Official website of the National Securities and Stock Market Commission [Electronic resource]. – Access mode: <http://www.nssmc.gov.ua/activities/annual>.

3. Balance of payments and foreign debt of Ukraine in 2012 // Official website of the National Bank of Ukraine [Electronic resource]. – Access mode: <http://www.bank.gov.ua/doccatalog/document?id=1316033>.

4. Bulletin of Statistics of the National Bank of Ukraine // Official website of the National Bank of Ukraine [Electronic resource]. – Access mode: http://bank.gov.ua/control/uk/publish/category?cat_id=71195.

5. Financial reporting data of banks of Ukraine // Official website of the National Bank of Ukraine [Electronic resource]. – Access mode: <http://bank.gov.ua/doccatalog/document?id=366148>.

6. <http://www.chasopis.geci.cn.ua/uk/component/k2/item/13-determinanti-rozvitku-rinku-finansovih-poslug-ukraini/13-determinanti-rozvitku-rinku-finansovih-poslug-ukraini.html>.
7. Keynes J.M. The General Theory of Employment, Interest and Money / J.M. Keynes. // A Project Gutenberg of Australia eBook [Electronic resource]. – Access mode: <http://gutenberg.net.au/ebooks03/0300071h/printall.html>.
8. Law of Ukraine “On investment activity” No.1560-XII of 18.09.1991 // Official web portal of the Verkhovna Rada of Ukraine [Electronic resource]. - Access mode: <http://zakon4.rada.gov.ua/laws/show/1560-12>.
9. State budget execution // Official website of the State Treasury Service of Ukraine [Electronic resource]. – Access mode: <http://www.treasury.gov.ua/main/uk/doccatalog/list?currDir=146477>.
10. Statistical information // Official site of the State Statistics Service of Ukraine [Electronic resource]. – Access mode: <http://ukrstat.gov.ua>.

4.5 MARKETING RESEARCH OF NEW MEDIA

In modern environment of tough competition it's very hard for business to reach success. Business faces with the list of problems which are difficult to solve, especially in modern crisis conditions even with having high-level professional and marketing potential. It's no longer enough to know marketing theories solely. We must search for new approaches to manage competitive activity, particularly in the area of marketing communications.

With the view of effective advancement of products to the enterprise's market it's reasonable to use IT in the area of advertising in order not to give to a consumer out of date and non-effective information.

The term “innovation” has appeared in the XX century, it was used in culturology and it meant “ the introduction of one culture certain elements to another”. In English innovation means introduction, new scientific and technological achievement. In scientific lexicon this term means “ the embodiment of scientific discovery, technological invention in new technology or a new kind of product.” Moreover, Schumpeter considered innovation as a new function of producing, it's new combination. The term “innovation” among the researches means the objects of implementation, for others it's a process, which directs to something new – the novation. According to J. Schumpeter: “Innovation is a new product or service, which is manufactured by enterprise, or usage of methods and resources which are new for it. Enterprise which provides innovative technological change first of all is innovative, and it's activity is called innovation” [8, p.115].

Today you can observe the “dying out” of old approaches of marketing communications. In the conditions of a global market, for effective promotion of product and keeping of leading

positions, enterprises use new ideas and technologies in goods, services and processes. The term “new technologies” or innovations can be understood as a final result of innovational activity, which appears as a new or improved good or technological process, which is implemented in the market or is used in practical activity. In the reality of market rapid development it becomes more harder to form a clear understanding of consumers’ preferences and to manage the effective marketing influence. It’s not enough merely to develop a new product, it’s also necessary to create a new value for consumer and to convince him in the quality of a certain product and the ability to satisfy the existing need. Except of traditional advertising methods of influence on the final consumer there are also methods which involves using the IT. Marketing specialists created the advertising which surpassed the traditional one with it’s efficiency. First of all, it’s based on using of the professional technical support, the latest computer technologies and innovative ways of presenting the information. Due to the non-standard approach and it’s novation, an innovative advertising attract consumers. It helps to maintain the competitiveness, to expand markets, contributes to acceleration of the turnover of funds [7, p. 335-338].

In addition, because of the extremely large number of media business faces certain “oversplitting” of the advertising budget on a huge quantity of different media. For the best memorization of a brand it is necessary to apply more and more contacts with the consumer, and this, as a result, leads to more and more investment in marketing (promotional) activities.

And it should be noted that not always the entrepreneur gets a decent effect from invested in advertising costs. So today the transformation of the advertising market strengthening are the latest approaches to communications, and increased demands on interactivity with the consumer. The company, which is trying to implement modern tendencies in it’s own marketing activities, pays increased attention to restructure of the advertising budget for the development of new marketing initiatives.

Such measures should be aimed at creating of an information environment that surrounds the product or offered service. The manufacturer has a persistent desire to build “other” dialogue with consumers – more informal, more confident. For these reasons a so-called technology for generation of information about informal communication for building a dialogue with consumers will serve [6, p.193].

There are two characteristics of new media:

(1) interactivity, and (2) digital. Shankar and Hollinger [10] have classified new media into three groups: intrusive where the consumer is “interrupted” [5] by advertising, non-intrusive where the consumer chooses to receive the communications, and user-generated where the consumer actually creates the communications. Although there will be disagreement about what

is the composition of set of “new” media and into which of the three categories they would fall, the following meet two criteria:

Internet advertising. The first “new” medium was the introduction of advertising on the Internet in the mid-1990s. Today, this would include a large number of Internet options [10]:

- Buttons
- Banners
- Skyscrapers
- Rectangles
- Interstitials
- Pop-ups

These Internet advertising options are variations on the same theme: some piece of “real estate” on the web site (or while a website is loading) that, if clicked, takes the customer to the advertiser’s web site. While most attention is paid to click through rates (CTRs), in fact, the ads themselves are like billboards and attract attention.

Product placement in Video Games (Advergaming). While product placement is not really “new” as it goes back to the 1950s or even earlier by some accounts, it has seen a dramatic surge in that the integration of products and services into TV programming, movies, and, importantly, video games is extremely common today. An important goal is to show the product in normal usage and, therefore, have the customer imagine how it would fit into his or her daily usage patterns. In TV programs, an additional benefit is that by placing the product into the content itself, it becomes invulnerable to being skipped if the program is being recorded by a DVR or VCR. In video games, the placements can be dynamic when the console is hooked up to the Internet, that is, a different product can be shown in the context of the game with repeated plays. There is interactivity in some Web-enabled games as a click on a virtual billboard which leads to a web site.

M-Commerce. Mobile or M-Commerce is still in its infancy in the U.S. but is widely used in many other countries such as the U.K., Japan, Korea, and China.

Marketers can send a variety of message to consumers with cell phones who agreed to receive such messages, termed “opt-in” customers.

These messages range from simple text messages to actual video commercials. In addition, some experiments are being run in order to try to see if coupons can be sent digitally to cell phones where the user would simply show a cashier a bar code on the phone which is then scanned.

The concept underlying M-Commerce is that customers can receive messages whenever they want them. It is often referred to as contextual marketing. Responses through SMS (short message services) make this form of communications interactive.

Non-intrusive

Internet Advertising

Some types of Internet advertising are non-intrusive because the consumer can activate the communications by himself:

- Streaming audio/video
- Destination sites (e. g., Burger King's www.subservientchicken.com)
- Sponsored search/paid links.

Obviously, the last group, paid links, has received a considerable amount of attention as it has spawned a hugely successful company, Google. The marketer expects about \$11 billion to be spent on search marketing in 2008 [3], by far the largest segment of online advertising.

Social networking sites. The social networking sites such as Facebook, Myspace, Second Life, and YouTube have generated perhaps the most publicity among all new media. In fact, the growth of these sites has led to the notion that we are now in the Web 2.0 era where user owing to generated content and discussions can create powerful communities that facilitate the people's interactions with common interests.

Marketers have been cautious in using of this new medium because of the risk that members of a community will become offended from an over-commercialization of the site. However, IBM, Unilever, and many other companies have set up sites on MySpace for fictitious characters from an advertising campaign and inviting select customers to become "friends" of the character. In some cases, companies have set up their social networking sites to facilitate their customers' interaction. For example, KLM.

Airlines has established a "Club China" on its web site for frequent travelers to that country to exchange itineraries, travel tips, business contacts, etc. Companies have also used social networking sites to invite customers to create their own advertisements for the company. This so-called customer generated media (CGM) is becoming a popular way for a company not only to engage its customers but also to obtain some creative advertising at a low cost.

Podcasting. This is a small new medium but growing in importance. Many MP3 player owners download content other than music. It includes newscasts, sports, short stories, and 11 other editorial content. Marketers can deliver audio advertisements embedded in the podcasts that reach a very narrow, targeted market.

“Buzz” or viral marketing. It is also referred to as Word-of-Mouth (WOM) marketing. For many product categories, customers rate friend, families, and professional colleagues as the main source of information about purchasing products and services. WOM marketing differs from the others in that it does not use the Internet or a traditional medium to deliver the message. The goal is to stimulate WOM about a brand from trusted personal sources rather than through an unknown part in an ad.

Buzz marketing typically uses a combination of the media noted above plus, where are appropriate, sponsored events. Thus, a company might try to create buzz about its brand by setting up a “friend” on MySpace and then running a contest through the MySpace site. The company might also stimulate conversation on a relevant blog and run an event in a shopping mall or other venue and hire people in the target age group to distribute free goods or just talk about the product.

Blogs. Short for weblogs, blogs have become a popular advertising medium. A blog is where a person establishes a web site, usually around a theme such as technology, share his or her opinions about the theme, and invites others to comment about the opinions, thus creating a dialogue around the theme. In some cases, the blog is just a set of postings from the enthusiast community. For example, www.autoblog.com is a blog for automobile enthusiasts. Marketers post banner and other ads on blogs that are targeted towards the user community.

Video sites. Consumers can now interact with brands through streaming video. For example, the phenomenon of YouTube has significantly changed the world of communication.

People not only submit videos of their lives and other similar content, they can also submit spoofs of TV ads or campaigns. In addition, companies often run contests today requesting consumer submission of TV commercials. The example of both of these is the “Campaign for Real Beauty” run by Unilever’s Dove soap bar. The campaign featured ads with “real” women rather than models. A large number of spoofs of the campaign were posted to YouTube and given significant publicity. In addition, the company ran a contest, Real Ads for Real Women, for Dove Cream Oil Body Wash, a new product, where the winning ad was shown on the Oscars telecast. The ads were posted to <http://dovecreamoil.com>.

Ratings/recommendations. Another form of user-generated content is postings of product ratings and recommendations to Web sites. Many popular e-commerce sites like Amazon and eBay rely on users to rate products and vendors that consumers use to evaluate prospective purchases.

Among these technologies such technologies as Internet communication, coolhunting, trendsetting, buzz-marketing, «word-of-mouth» advertising, event-marketing should be

mentioned. In times of advanced Internet technologies, when society is constantly in the online mode, it's really important to pay attention to advertisers to distribute advertising through Internet. It is essentially to note immediately that advertising online usually has two-stage character. The first element is the impact of outdoor advertising: banners, text blocks and other advertising media which are being placed on popular and content sites. It includes advertising using searching systems and catalogues, advertising mailing lists, publications on new sites and many other ways. It is called passive advertising, because it is not under the control of the user.

The user perceives advertising as a result of interaction with the publisher's site. You are visiting the newest server, for example, in order to find out the exchange rate and meet on the front page banner that advertises car insurance. Hereby given link is similar to advertising in traditional media. A man buys a magazine to read news and articles which are interesting for him, without seeing new advertising announcement. Housewife turns on the TV to watch the series, but not commercials and advertising etc. The second element is the only one that user gets after interaction with advertising. As everyone knows, the most common form of interaction is to click the mouse on a banner ad or link and then hit the user directly to the advertiser's website. Although you can cite other examples. For example, directly on the banner, you can answer a question or to subscribe to the mailing list. Banner is revealed and becomes a mini-site. However, in any of these cases, the action was directly caused by the reaction of the user to passive advertising (first link), and the demonstration of the second stage took place to his will and under his control. Such advertising can be called active. There are might be few reasons for user to respond an ad and click on the link, including: advertising intrigued the user, he didn't understood completely, or misunderstood what awaited for him; advertising interested the user, and he goes on website for more details, user became interested for specific proposal, and he goes to the site to fill out an application, to purchase, to receive the promised information, to participate in a survey or contest. As a result of the fact that all phases of user interaction are being counted and analysed, the network has a set of "price models" – payment for advertising. Some of the models are unique and have no analogues in the traditional advertising channels. One of the most popular pricing models – is advertising: advertising without regard to the number of impressions and clicks. Many web-sites tend to place a banner advertiser on one or more of its pages, charging a flat fee per month. The cost depends on the attendance of pages, the themes of server, location of an advertisement. For it's kind, given price model is similar to placing billboard advertisements on the streets, where pay is also based on time – a week, a month [1, p. 440-448].

The term "coolhunting" appeared in the early ninetieth of the last century. Coolhunting – is a symbiosis of English words – «cool» and «hunting», is literally hunting for new and fashionable. What is important to add – the hunting for something "fresh". Coolhunting introduces a specific marketing research in search of the latest tendencies trends. Typically, these studies have focused directly on a deep market research to find specific trends in this market. Coolhunters know already a few years the future popularity of certain trends. There are even special coolhunting agencies. Their main task is to study the consumer market, with subsequent data analysis to identify growing trends. Through such research coolhunting agencies study the consumer preferences very strict by. Next stage is qualified analysis of the data. Because the task of coolhunting is finding almost imperceptible manifestation interest of consumers to a particular direction. Sometimes large companies have their own coolhunting departments based on marketing service. Their job is the usage of the data to identify consumer needs on a market. Usually, companies want to buy ready coolhunting research agencies not to occupy their marketing service and not to keep staff. Moreover, these studies cost remarkable sum of money because of the opportunity to orient their production considering the future needs of consumers. The main object of coolhunters' studies is young and active layer of people of any age. Namely youth market is more sensitive to new trends and actively consumes all the novelty. Youth market is the most active, but at the same time, it is particularly difficult to research. However, this market is actively researched and gives some positive results. Coolhunting can be conducted in any area, both in the real world and the virtual. Increasingly, data of coolhunting agencies is obtained using the World Wide Web. After all, it is easy to reach a huge number of respondents from different geographical areas and different social status thanks to Internet. There are several great sites of coolhunting companies that conduct surveys on their websites. And, frequently there are paid surveys or even polls with reward to respondents. Of course, coolhunting is not studying with 100% result. Very often there are errors in the conclusions analysis of coolhunting companies and promising direction suddenly dies. But, nevertheless, coolhunting remains popular worldwide.

Coolhunting is a quite new direction in marketing in general and marketing communications in particular. But the number of such agencies and departments in large companies is growing. After having information about what will happen tomorrow, what products become more popular, and which culture will take place on the stage, you can advance to prepare. A preconditioning is known to give very good results.

Trendsetting – is the technology of detection, creation and implementation of the latest trends in the tastes of the target audience to further their implementation in the final product. This term refers to the study and forecasting of trends in different areas of modern life. The most fashionable and the most modern trends which are supposed to be implemented in the new actual product are being identified, created and implemented. Specialized agencies, including the aforementioned "coolhunters" work on gathering of the necessary information.

Using the final data agency predicts the trend.

Trend-forecasting is a profession that appeared in the 1970s of the last century. Today, there are institutions, associations, agencies involved in the analysis of social sights in the future and predict trends in the world of fashion. One of the founders of this profession was Lee Edelkort – the Dutch, who in 1975 organized the Trend Union [7, p. 340; 8, p. 110]. Among Lee Edelkort's studio clients are such giants as Procter & Gamble, Wella, Coca-Cola, Ermenegildo Zegna, Cacharel, Gucci, Jaguar, L'Oreal, Lancome, Nissan, Shiseido, Philips, Swarovski, Siemens, Lacoste, Samsung electronics and other . This list of business giants that buy services from trend-forecasting and trendsetting demonstrates the urgency of this direction in marketing activity.

Trendsetting specialists should analyze the mood and feelings of consumers and relay the results to trends. This specialist handles a huge amount of information and such professional is responsible for the look of the products tomorrow. To predict the trends you have to know how to gather and organize information from everywhere, and apply to in a certain extent your professional intuition. But the important feature of trendsetting that should be taken into account during building of your own marketing strategy – the early new trend is being discovered, the faster will spread and become "mainstream" which is no longer something extra new. And again the question about further search of a new trend of the future takes place. One of the problem of the modern trend-forecasting and trendsetting is the lack of proper education in this field. Today, subjects of education aren't enough, where high-level teaching is focused on the orientation in the vast flow of information. Specialist in trend-forecasting and trendsetting must be taught to openness, multi-planning, complexity and the ability of this complex to get certain results [4].

Some attention should be paid to such a phenomenon as buzz marketing («buzz» – humming sound, Eng.) – generating rumors, or, more precisely, the resonance of public opinion after the event. Buzz marketing involves creating pothor, hype around the product, both technical and natural funds of communication. First of all it's a system of launching of rumors and skillful maintenance of discussions, what is traditionally considered in PR

studies. Buzz marketing – is a marketing information technology, which can be characterized as a management response to an (advertising) event using the methods of psychological influence infection, inheritance, fashion. This approach should be used in the presence of a limited advertising budget for the markets that are already saturated with specified products. Buzz marketing is nothing more than a way to implement future trends, identified by trend-forecasting and trendsetting. Nowadays, one of the trend in marketing communications is the usage of «word-of-mouth» advertising to promote their products. «Word-of-mouth» advertising (advertising "word of mouth") – is advertising, transmitted with satisfaction from purchasing of goods or services by consumers to their relatives, friends and circle of relatives. At the same time, the quality of the product or service plays a decisive role in shaping the opinion about it [2, p. 10–12].

An active development of such a tool of marketing communications as event-marketing have recently taken place. Modern marketing has to be in more and more increasing degree client-oriented. You must provide the consumer not with annoying and lengthy ads, but with giving him a sense of freedom of choice and cause a feeling that the manufacturer (or seller) is adjusted by the customer itself, not vice versa – forcing the client to buy something. Therefore, event-marketing is an effective tool in building of a favorable consumer attitude. Event-marketing – is a phenomenon of modern marketing, which aims to organize special events, providing consumers with personal positive experience about the brand, shaping it so emotional connection with it. Very often not the fact of participation in the event becomes important, but a wave of information about him and user's feeling of its mark by being involved. A certain pair of marketing projects is being taken from the standard BTL-programs or sponsoring, but mostly it tends to develop original one, taking into account the priorities of the target audience and product features of the program. Since it became important in event-marketing to have information support, it began to mean that it is the reason for the introduction of information in media environment, then this technology should be considered in conjunction with public relations and should be integrated in marketing communications theory. And it should be noted that Ukrainian businesses actively use event-marketing in the implementation of its marketing activities. It is evidenced by active growth of market event-services in our country [9, p. 30-33].

So, today the role of the aforementioned tools of modern marketing is hard to overemphasize. The latest business for building of an effective marketing strategy is to actively use these achievements today. In modern terms tasks of business strategies have been fundamentally changed, on which will depend the whole concept of communication: it is

important not to get market share but maintain profitability and increase capitalization companies. This task itself should contribute unique to each enterprise complex of economic, organizational, promotional, informational and communication activities called "integrated marketing communications" (IMC). All the above points should lead to a better understanding of the need for a comprehensive development of business strategies within the framework of which various methods of building of a dialogue with consumers are supposed to be used.

1. Anshyna V. M., Dahaeva A. A. (2007), *Innovational management: concepts, multi-level strategies and mechanisms of innovational development: tutorial/ 3rd edition., altered.* – M.: Dielo, 2007. – 584.
2. Buzz marketing - из уст в уста (2010) // *Brand-management.* – 2010. – № 1. – P. 24-30.
3. Marketer (2008), "Will Marketers Get Frugal With Google?" February 29.
4. Fromm E. *Trandsetting – the power of informational proletariat.* – Access mode: http://www.pr007.ru/01_trendsetting.html.
5. Godin, Seth (1999), *Permission Marketing*, (New York: Simon & Schuster).
6. *Innovational Marketing: tutorial/ N.I. Tchukhraj* (2011). – Lviv: Lviv's polytechnic publishing house, 2011. – 256.
7. Lukyanets T. I. (2000), *Marketing Policy of Communications: Training. Guide.* – K. KNTEU, 2000. – 380.
8. Pankruhyna A. P. (2009), *Marketing. Large explanatory dictionary.* - M.: Omega-L, 2009.
9. Slupsky S. (2010) *Event-market of Ukraine: the look into the future // Marketing and advertising.* – 2010. – № 10. – P. 30-33.
10. Shankar, Venkatesh and Marie Hollinger (2007), "Online Advertising: Current Scenario and Emerging Trends," unpublished working paper, Mays Business School, Texas A&M University.

4.6 TECHNOLOGICAL DEVELOPMENT OF THE PROCESS OF BANKING PRODUCTS IMPLEMENTATION

The complexity and diversity of the problems of banking products pricing on due to a wide range of questions is related to the lack of developed methodological tools of pricing in conditions of the national banking system modernization.

Considering the approaches to pricing of bank products (BP) and pricing in the banking sector, it is reasonable to consider common to all economic activities pricing issues as theoretical basis characterized by uncertainty pricing technology that requires further clarification.

Summarizing of the theoretical aspects of bank products pricing and considering the practical aspects of pricing, we have determined that technology banking product is a set of

interrelated activities (financial, organizational, informational, technological and legal) that combines unique technology services, which regulates relations between the client and the bank, focused on customer satisfaction as part of his banking product.

When pricing banking products the following stages can be determined:

1. Defining of strategy and strategic objectives of the bank
2. Pricing policies and strategies of the bank
3. Selection and justification of pricing methods of BP
4. Introduction (implementation) / modernization of banking products
5. Analysis of fixed prices for banking products
6. Monitoring compliance with fixed prices to achieve the strategic objectives of price policy of the bank and its strategic goals totally.

Let's perform detailed description of each stage and determine their specific aspects.

The first stage of banking products pricing is to determine the strategic goal of the bank that in future have an impact on all aspects of its activity, including the questions of pricing. Thus, the behavior of the bank in the market will depend on the choice of a particular strategy. According to this the types of policy the next strategies will be determined: aggressive, moderate, conservative [3].

The key sense of strategy formulation is to find ways to overcome the market competition. Therefore, the strategy of the bank can be characterized as conceptual basis of its activity that determines the priority objectives, goals and ways to achieve them and differentiates the bank from competitors. It helps to make key decisions concerning future markets, product and organizational structure, etc for bank manager at all level of its activity.

Each of these policies has defined goals of entering the bank in the market that are different. Thus, specific pricing banking products will be formed precisely at this stage.

After defining of the strategic goals the bank establishes pricing policy. According to it the directions of development and principles are determined following which the bank will set prices for their products.

The next stage of pricing of bank products is the choice and justification of pricing methods that are correspondent to the current pricing policy and strategy of the bank. In particular, at this stage it should be determined which method (cost, market or combined) will be used for setting prices for the products. Justifying the methods of establishing the prices for the bank products such factors should be determined, which will influence pricing of the bank products. After that the systematization should be made depending on the place of appearing (external / internal) and directions of influence (stimulants / disincentives) [7].

Thus, the external factors that affect the pricing of banking products is the level of state regulation of prices, market conditions of banking services, the level of competition, inflation, exchange rate, the size of the budget deficit, the price elasticity of demand. Internal products are divided into those relating the products (cost of bank products, terms, level of risks that appear in its implementation, the stage of life-time of banking products, etc.) and those relating the bank (pricing policy, strategy of the bank, its specialization, size, the stage of life-time, interests and intentions of the shareholders, organization of management accounting of the bank, etc.)

After systematization of factors at the place of origin they should be divided into factors-stimulant (prices for banking products which are increased during increasing) and factors-disincentives (decrease prices for these products during increasing). Determination of mechanism of impact of these factors on pricing bank products and their division on stimulants and disincentives is individual for each bank depending on its policy and character of the product.

It is necessary to consider the technology of implementation/modernization of these products during pricing.

Therefore, the implementation/modernization of banking products can be identified as the fourth stage of pricing. General concept of development coordination of new and modernization of existing products in most banks is assigned to the department of development and implementation of banking products (DDIBP). To achieve the objectives other departments of the bank provide its information in the package of documents.

Schematically implementation/modernization technology of banking products is presented in Figure 4.9. It is a set of regulatory documents that firstly contain all complex information needed for formation of the goal, determination of the economic sense of the banking product and secondly, regulates the mechanism of implementation and realization of banking product by bank's departments.

Also they contain the conceptual description of banking product, technologies and rules for the formation of analytical characteristics of banking products. Required documents are formed separately in credit and investment, saving and funds creation, cash and banking products settlement including current internal documentation that contains sufficient information for quality of customer service. The required documents must contain at least one document of each category [2]. The first step of implementation/modernization of banking product is the request to the department of development and implementation of banking products.

The staff of DDIBP and marketing department must judge the application and conclude if it corresponds established plans taking into account the current system priority and the current

strategy of the bank as a whole. Then the application is judged by other structural departments in the sphere of marketing, financial and economic, legal questions, risks, information banking systems, internal security and accounting.

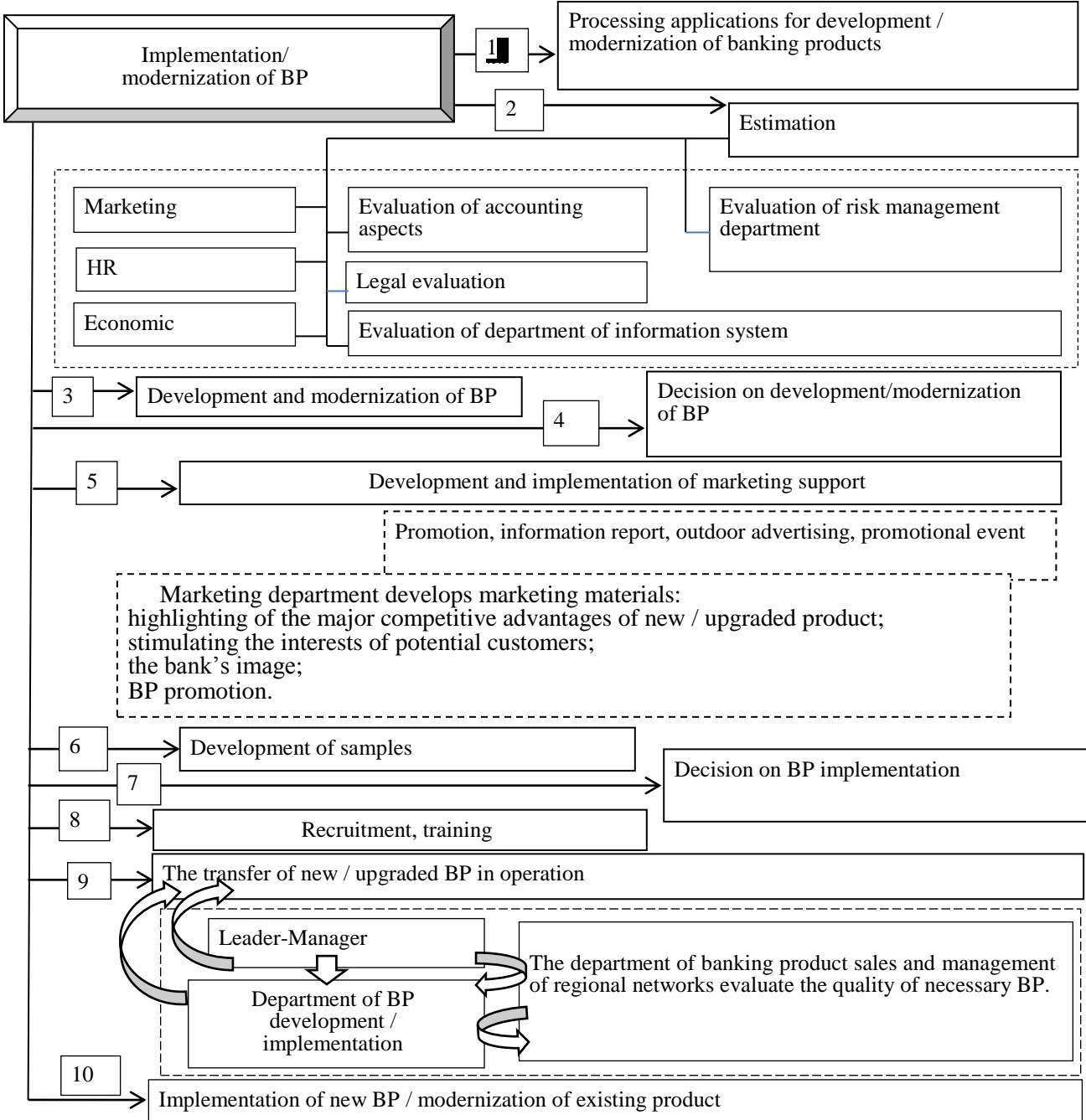


Figure 4.9 – Technology and implementation / modernization of banking products during market pricing [Author’s adaptation based on 4; 5]

The second step of implementation/modernization of banking product is formation of evaluations. The formation of evaluations includes the results of marketing evaluation, HR,

economic, legal, accounting aspects, evaluation of management information systems and risk management. The next step is evaluation that is a part of risk management. Based on the results of marketing and economic evaluation it judges the risks namely market, credit, operational, and so on. Also this department assesses application characteristics. All information formed in departments is focused in DDIBP. For further consideration achieved results are passed to authorize body (collegial body of the Bank is authorized to make decisions on development / modernization / implementation of banking products). Authorized body or CEO (chief executive officer) decides to implement/modernize banking products. The next step is the development/modernization of banking products. Within the framework of the budget including the planned profitability of banking products the marketing plans that have to be highlighted:

- the main competitive advantages of the new banking product or modernization of existing;
- stimulate interests of existing and potential clients;
- strengthen the confidence and image of the bank;
- promotion of banking products.

Development of package of documents is an essential condition for implementing of a new banking product.

Department of development and implementation of banking products with legal department, accounting, risk management develop document templates that are the part of business processes, namely contracts for banking products including business requirements derived from the development and implementation of banking products.

Recruitment and training of employees is an essential process in the implementation of banking products. The bank requires skilled personnel to achieve the goals regardless if it is saving and funds creation, credit or cash settlement of banking products.

To realize the goals of the bank it is necessary to develop, give employees training materials, project motivation and recruitment, to carry out the trainings of bank's staff who are involved in the implementation of banking products.

To minimize costs and risks during implementation of banking products let's consider expedient to carry out a pilot project. Under "pilot project" is meant experimental introduction of banking products in several departments of the bank in order to understand expediency (practicality) of existing. If required it will give opportunity to identify additional factors that have an impact on the implementation of banking products, as well as to give an opportunity at an early stage to consider the shortcomings and offer market competitive banking products.

The technology of implementation of banking products including «pilot project» is depicted in Figure 4.10.

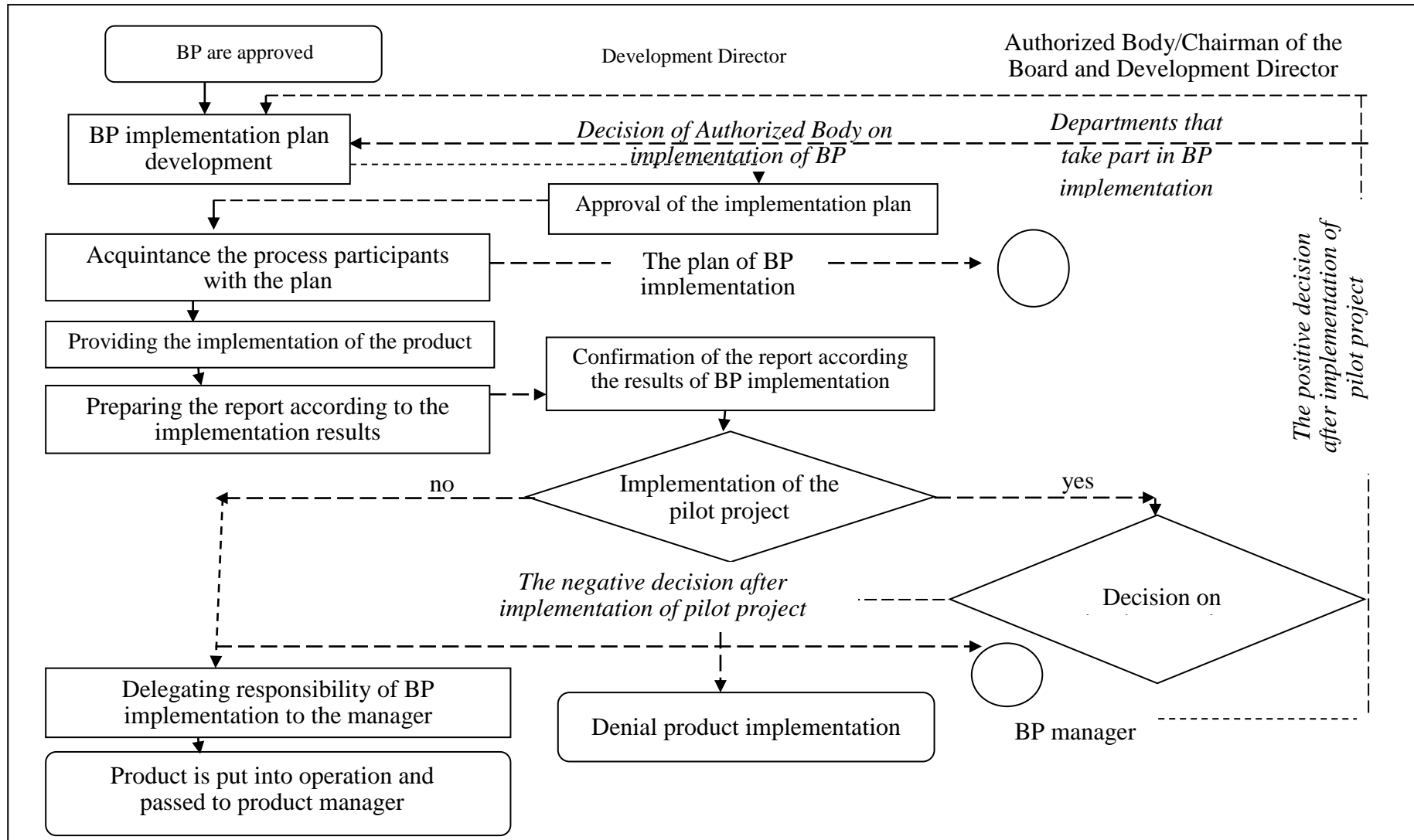


Figure 4.10 – Technology of implementation of banking products including «pilot project [Author's adaptation based on 4; 6]

Implementation of «pilot project» provides the introduction of banking products in some offices / departments of the bank. List of offices / departments is determined by DDIBP that will allow testing new banking products including all factors that affect pricing and implementation process in the future.

Throughout the period of the «pilot project» at least once a week it is necessary: to perform measurements that include data of the effectiveness of sales, profitability of sales, the presence of risks (including operational), the effectiveness of marketing support, compliance of software, etc.

According to the proposed concept the final stage is the analysis of established prices for banking products and monitoring of their compliance with the achievement of the strategic objectives of pricing policies and objectives of the bank.

In our opinion, pricing of banking products is necessary to consider the level of risk associated with them. For this purpose we developed an algorithm for the analysis of risks to banking products.

Risk and profit are two interrelated and specified economic categories. Therefore, the assessment of banking products profit is a risk-based framework for strategic management decisions concerning the development and financing of certain banking areas, formation of the product range, improving of profit and risk ratio, furthermore encouraging of staff to work more effectively.

While determining the profitability of banking products, we must consider the risks which accompany them.

Main types of bank risks are shown in figure 4.11.

There are two categories of losses arising as the result of bank risks: expected (average) and unpredictable (random).

By expected losses we understand the average level of losses, arising from the implementation of the relevant banking product of the assets. The expected losses determine the amount of reserves which are to be formed as a banking product. The cost for reserves must be covered by profit, from the sale of banking products which means to be laid in their value as risk premium.

Calculation of the expected losses and reserves allows us to assess «market value» of banking products, including possible risks.

Unexpected losses are losses associated with unpredictable events, such as systematic crisis, global financial crises or unpredictable political disasters. Bank capital is the source of unexpected losses covering.

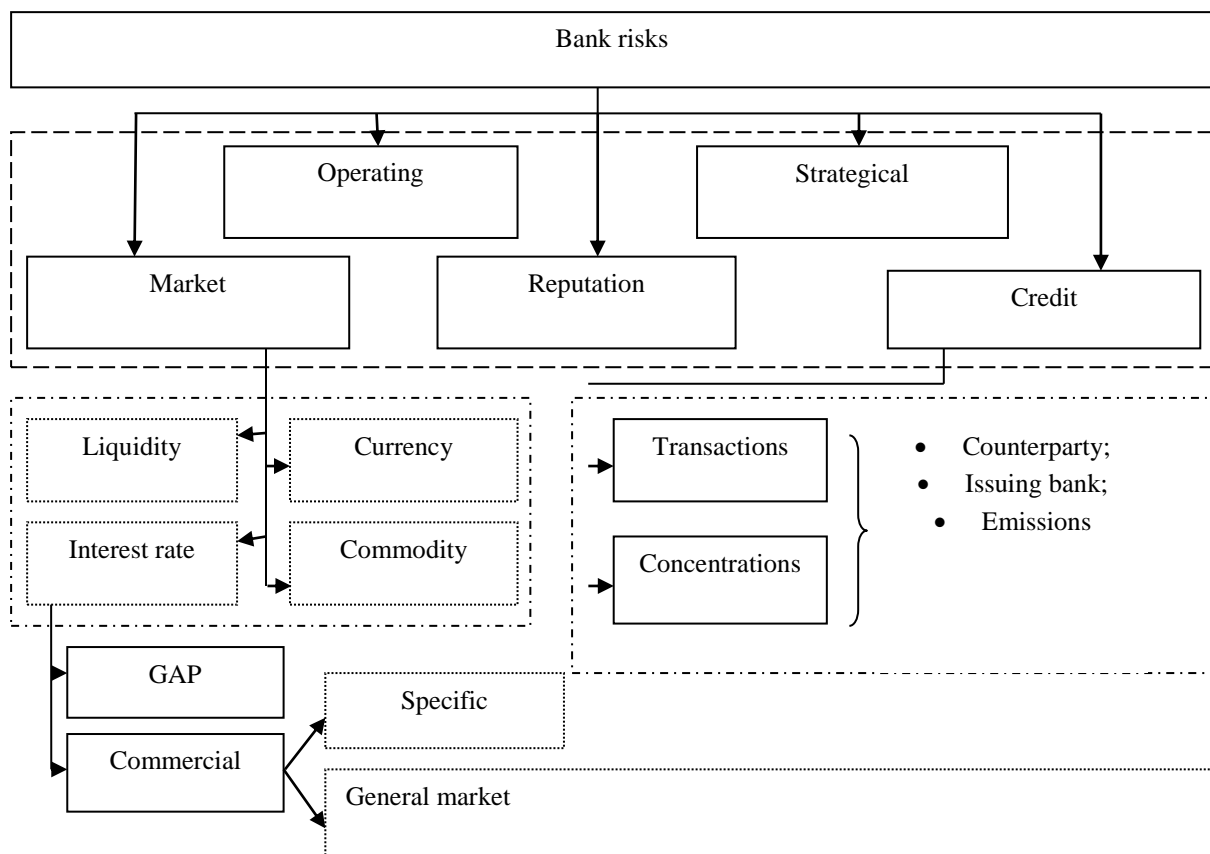


Figure 4.11 – Main types of bank risks [Author’s adaptation based on 4; 5]

The most common and the most appropriate approach to estimate unexpected losses is the methodology of Value-at-Risk (VaR) [1]. It allows to predict the losses based on mathematical models (variational-covariance, exponential model, volatility model).

The methodology of integrated risk management is appropriate to use during the evaluation of bank risks. Its main goal is to find an optimal balance between risk and profitability. The methodological component of this approach involves the calculation of economic effect (EVA index) and the effectiveness of the risk (RAROC rate).

Given the above, we consider necessary to adjust the earnings from banking product for the expected losses and reduce the cost of «capital risk» needed for selling its products thus having «economic added value» of this activity type.

$$\frac{EVA}{EP} = RAR - RAC \times HR_{capital} \quad (4.1)$$

- where RAR is a profit including risk;
- RAC is an economic capital;
- $HR_{capital}$ is a capital profit rate.

As a basis for assessing of banking business directions and products we suggest use the methodology of RAROC, which will allow us to implement an integrated approach to the assessment of profit including risks.

There have been some modifications in RAROC, such as return on capital adjusted for risk (return on risk-adjusted capital – RORAC) and adjusted return on capital risk, calculated including the risks (risk-adjusted return on risk adjusted capital – RARORAC). The following modifications such as capital profitability adjusted for risk (return on risk-adjusted capital – RORAC) emerged in RAROC together with risk adjusted capital profitability calculated with including risk (risk-adjusted return on risk adjusted capital - RARORAC).

During the study we have determined that we can use RAROC method in order to compare different banking products. This is illustrated by the increase in added shareholder value of the bank, which reflects the level of increase or decrease of shares value. If added shareholder value is equal to zero, then banking product does not either increase or decrease shares value. Banking product increases shares value under condition of positive added value and, consequently, it decreases because of negative added value.

Comparison of economic capital required for a certain banking product and added stock exchange value for each of them illustrates their effectiveness (Fig. 4.12).

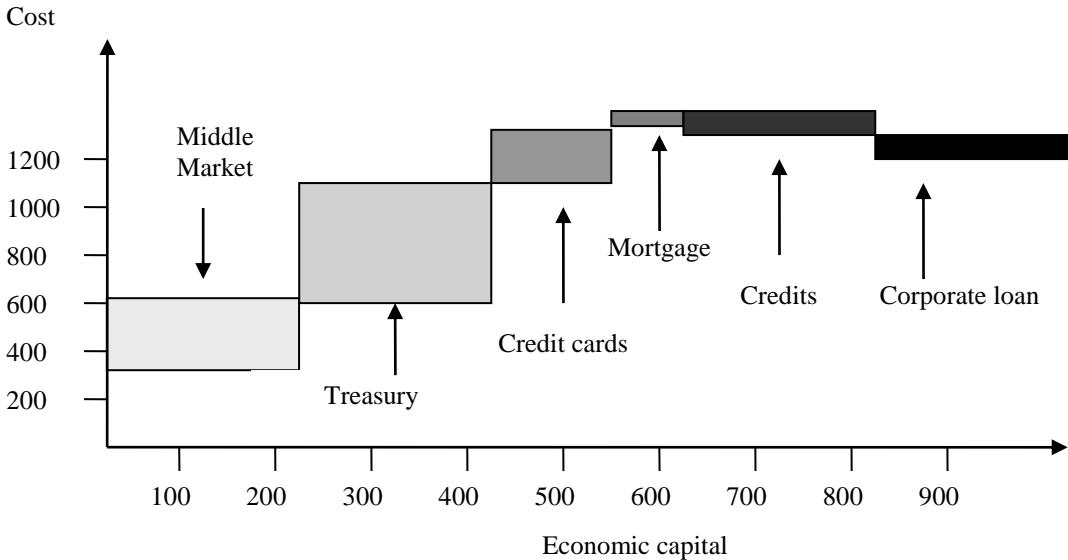


Figure 4.12 – Creation of value added stock exchange with specific areas of the bank.
 [Author’s adaptation based on 4; 6]

Figure 4.12 presents the comparison of shareholder added value of each banking product to the economic capital required for their manufacturing and selling of banking

products which are classified according to the efficiency of value added per unit of resources which have been used. Products which are on the left of the graph create added value. The board of bank must find ways to ensure sales of these products through additional investments.

Products inside the graph (such as: credit cards, mortgage) are not effective, the bank management must improve their efficiency by reducing of their costs, scale effects or other additional incentives. The products which are on the right side of the graph (small business, corporate loan) are the least effective and in most cases are active «destroyers» of stock exchange value. The management has to use an aggressive policy to find the causes of low efficiency in order to improve it.

Based on above there is a formula which allows to assess the risk of adjusted capital profit (4.2):

$$RAROC = \frac{E - EL}{RC} = \frac{E - EL}{(MRC + CRC + ORC)}, \quad (4.2)$$

where:

E is a net profit with expenditures on partial hedging and credit risks;

EL are expected losses as a result of economic risk;

RC is the capital reserved against the overall unhedged risk (it consists of unpredictable losses as the result of market, credit and operating risks).

It should be noted that each bank has its own responsibility to reserve capital against losses arising as the result of unpredictable risks because the level of abruptness of different risk types is different for every bank and depends on many factors (bank specialization, spectrum of active operations, «risk appetite» etc.)

The formula (4.2) is based on the assumption that between market, credit and operational risks there is an absolute positive correlation (+1).

In practice, we can observe both positive and negative correlation between market and credit risks, whereas operational risk doesn't normally have a significant relationship with two types mentioned above.

Correlations between risks of different origin could possibly reduce the amount of the reserved capital, but currently this problem hasn't been solved yet.

Therefore, in updated versions of RAROC method they implement full-scale economic modelling by Monte Carlo method aimed to build a joint distribution of losses under conditions of simultaneous display of all types of risk which would take into account all

apparent relationships between them. If you can build a joint distribution of losses due to major risk factors, the cost of capital which is reserved against the overall risk is determined by analogy to VaR as a quintile of this order distribution α (formula (4.3)):

$$RC(\alpha) = \inf \{xP(L \leq x) \geq \alpha\} - E(L) \quad , \quad (4.3)$$

where:

L is a random variable which reflects losses size;

E(L) are expected losses.

However, in practice the risks are assessed separately at the same level of trust and time horizon (without modeling of their joint distribution), and then they aggregate obtained assessments, based on ideas about the relationship between risks.

It should be noted that assessing of risks mentioned above is a difficult task, but if everything has been performed correctly one can get a possibility to use RAROC method for different aims such as:

- pricing of financial instruments and banking products;
- assistance in timely profitability assessment of all banking products, which will increase effectiveness of business plans and budgeting;
- making possible to determine the fair value of loan of banking products including the risks taken by the bank.

RAROC has the following formula (4.4):

$$RAROC = \frac{RAR(\text{Profit including risk})}{RAC(\text{Risk - Capita})} = \frac{\text{Direct and indirect profit} - \text{Direct and indirect expenditures} - \text{Expected losses (credit, market, operating etc)}}{\text{Economic capital needed to cover unpredictable losses (credit, market, operating, etc)}} \quad , \quad (4.4)$$

The relationship between RAROC and EVA is determined by the following formula (5):

$$RARORAC = \frac{EVA}{RAC + HR_{\text{Capital}}} = \frac{RAR}{RAC} \quad (4.5)$$

Banking product is considered to be profitable if $RARORAC \geq HR_{\text{capital}}$ creates economic profit. This means that the product can be introduced in the market.

So, we have determined that RARORAC is an integrated approach linking risk, capital and cost. It can assess the current and future cost of the bank in terms of various business areas, risk types, banking products. With its help we can assess the current and future cost of the bank in terms of different business areas, risk types, banking products.

Pricing of banking products is an important task, the implementation of which provides the necessary resources to the bank and effective distribution. Analysing aforesaid the following conclusions should be made: described concept of pricing of banking products will allow banks to set prices for products including influence of certain bank factors and market value amounts of financial resources. This technology will prevent losses for the bank. It should be noted that the losses from the introduction of bank products that are not competitive in quality and price, can be significant and influence the size of the profit and the reputation of the bank.

Implementing of banking product and «pilot project» will enable the study of positive and negative developments in the implementation of further decisions on the feasibility of its implementation. This will allow to identify additional factors that have an impact on the implementation of banking products and initially providing an opportunity to consider the shortcomings and offer market competitive banking products.

1. Гойденко Ю., Теоретические основы ценообразования в коммерческих банках / Ю. Гойденко // Финансовый бизнес. – 2002. – No. 2 (127), С. 52–55.
2. Перехожев В., Современные подходы к пониманию категорий «банковский продукт», «банковская услуга» и «банковская операция» / В. Перехожев // Финансы и кредит. – 2002. – No. 21 (135). – С. 23–32.
3. Вилутис А. (2009), Определение банковского продукта с позиции процессного подхода. – Access mode : http://www.rusnauka.com/10_NPE_2009/Economics/44119.doc.htm.
4. Уткин Э. А., Инновационный менеджмент / Э. А. Уткин, Н. И. Морозова, Г. И. Морозова. – М.: АКАЛИС, 1996. – С. 208.
5. Kwangwoo P., Pennacchi G. (2012), Harming Depositors and Helping Borrowers – Access mode : http://www.afajof.org/pdfs/program/updf/p1073_financial_institutions.pdf.
6. Radecki L. (2010), The Expanding Geographic Reach of Retail Banking Markets – Access mode : <http://www.ny.frb.org/research/epr/98v04n2/9806rade.pdf>.
7. Энциклопедия финансового риск-менеджмента / Под ред. канд. экон. наук А. А. Лобанова и А. В. Чугунова. – 4-е изд., испр. и доп. – М.: Альпина Бизнес Букс, 2009. – 932 с.

ABSTRACT

Methodological bases and practice of sustainable development implementation : monograph / edited by Dr. of Economics, Prof. O. Prokopenko, Ph.D in Economics, Assoc. Prof. N. Kostyuchenko. – Ruda Śląska : Drukarnia i Studio Graficzne Omnidium, 2015. – 272 p.

The monograph deals with theoretical aspects and practical issues of sustainable development concept. Policies to implement sustainable development principles in everyday life are described in the monograph. Innovative approaches to provide sustainable development of enterprises are proposed by the authors. Methods to evaluate the progress of a region or a country in sustainability are also shown in the monograph.

The first part in the monograph “Theoretical and methodological issues of sustainable development” shows general aspects of sustainable development concept giving European perspective as well as perspectives for Ukraine. The authors state on the need to implement sectorial issues of Rio Convention into national sustainability policies. Authors also ground on the role of ecologically oriented innovative culture of a society in that process. Special attention is given to the idea of sustainable enterprise and sustainable personnel.

The second part “Scientific and methodological issues of sustainable development implementation” pays special attention to define priority directions to implement the concept of sustainable development. Sustainable development indicators on individual, institutional and regional levels are analyzed. Ecological management is described as a tool for effective use of sustainable development principles. Cluster approach to evaluate regions’ competitiveness is described. The authors suggest environmental marketing strategies for sustainable development of enterprises. They also state on the necessity of corporate environmental responsibility to be implemented. The authors define limitations to sustainable development of tourist territories and propose possible solutions for Republic of Bulgaria.

The third part “Scientific and applied issues of sustainable development implementation” shows complex analysis of scientific approaches to sustainability issues. Ecological marketing is stated to be a tool for promoting sustainable business (in that case, a special pricing policy has to be applied). The role of managerial policy on central and local level together with society’s inclusion is shown as opportunities for social and economic districts’ development in Republic of Bulgaria. The authors describe mechanisms for environmental and economic security in the Black sea region. The authors substantiate sustainable development strategy for the river Horyn basin, outlining possibilities and evaluating expediency for transformation of the river basin territory into innovation-oriented agrarian and industrial complex. A set of competitive marketing research methods is proposed in the monograph. The authors propose to implement alternative management in higher education for sustainable development.

The fourth part “Practical issues of sustainable development implementation” proposes practical aspects to make sustainable development real. Procedure of marketing research of new media is observed. Applied aspects to provide credit support in financing of investment activity are explained in the monograph. Technological aspects of the process of banking products implementation are explained. Practical aspects of professional and emotional competencies needed for government officials are described. The authors propose public and private partnership as a form of state and business cooperation in investment sphere. They introduce informative space of innovative business processes at industrial enterprises.

Key words: sustainable development, sustainability, ecological management, marketing, innovations, ecological safety, economic development, policy, mechanisms, indicators.

ABSTRAKT
(abstract in Polish)

Metodologiczne i praktyczne zasady zapewnienia zrównoważonego rozwoju: monografia / pod ogólną red. d-ra hab. ekon. nauk, profesora O. Prokopenko, d-ra ekon. nauk, docenta N. Kostyuchenko. – Ruda Śląska: Drukarnia i Studio Graficzne Omnidium, 2015. – 272 p.

W monografii rozważa się aspekty teoretyczne i zadania praktyczne koncepcji zrównoważonego rozwoju. Opisano tu metody stosowania zasad zrównoważonego rozwoju w życiu codziennym, zaproponowano innowacyjne podejścia do zapewnienia zrównoważonego rozwoju przedsiębiorstw. Przedstawiono również metody oceny postępów w samowystarczalnym rozwoju regionu pojedynczego lub kraju w całości.

W pierwszej części monografii «Teoretyczne i metodologiczne zagadnienia zrównoważonego rozwoju» opisano ogólne aspekty koncepcji zrównoważonego rozwoju, która wydaje się obiecującej zarówno dla Europy, jak i dla Ukrainy. Autorzy wskazują na konieczność stosowania programu sektorowego Konwencji z Rio w państwowej polityce zrównoważonego rozwoju. Autorzy również doceniają rolę ekologicznie zorientowanej kultury społeczeństwa w tym procesie. Szczególną uwagę przywiązuje się do pojęcia stabilności przedsiębiorstwa i stabilności personelu.

W drugiej części «Naukowe i metodologiczne zadania zapewnienia zrównoważonego rozwoju» szczególną uwagę poświęcono określaniu priorytetowych kierunków zapewnienia koncepcji zrównoważonego rozwoju. Przeanalizowano tu wskaźniki zrównoważonego rozwoju na poziomie indywidualnym, instytucjonalnym i regionalnym. Opisano zarządzania ekologicznie jako narzędzie efektywnego korzystania z zasadami zrównoważonego rozwoju. Opisano podejście klastrowe do oceny konkurencyjności regionów. Autorzy proponują strategię marketingu ekologicznego dla zrównoważonego rozwoju przedsiębiorstwa. Stwierdzają także potrzebę wprowadzenia korporacyjnej odpowiedzialności przedsiębiorstw za środowisko naturalne. Autorzy wskazują ograniczenia dla zrównoważonego rozwoju obszarów turystycznych i proponują możliwe rozwiązania dla Bułgarii.

Trzecia część «Naukowe i praktyczne zadania zapewnienia zrównoważonego rozwoju» przedstawia kompleksową analizę metod naukowych w zastosowaniu do kwestii zrównoważonego rozwoju. Marketing ekologiczny postrzegany jest jako narzędzie promowania zrównoważonej działalności gospodarczej (w danym przypadku, stosuje się specjalną politykę cenową). Podkreślano znaczenia polityki zapewnienia zarządzania w poziomach na głównym i lokalnych poroziomach obok z atrakcją społeczeństwa jako możliwość do rozwoju społecznego i gospodarczego niektórych regionów Republiki Bułgarii. Autorzy opisują mechanizmy bezpieczeństwa ekologicznego i gospodarczego na obszarze Morza Czarnego. Autorzy uzasadniają strategię zrównoważonego rozwoju basenu rzeki Gorin, podkreślając możliwości i wykonalności oceny transformacji obszaru basenu rzeki w innowacyjnie zorientowany kompleks agrarny i przemysłowy. W monografii zaproponowano szereg metod badań konkurencyjnego marketingu. Autorzy proponują zastosować alternatywną zarządzania w zakresie szkolnictwa wyższego dla zrównoważonego rozwoju.

W czwartej części «Zadania praktyczne zapewnienia zrównoważonego rozwoju» przedstawiono praktyczne aspekty dla realizacji zasad zrównoważonego rozwoju w rzeczywistość. Zaproponowano procedurę badania marketingowego nowych technologii medialnych. W monografii wyjaśniono praktyczne aspekty zapewnienia wsparcia kredytowego w finansowaniu działalności inwestycyjnej. Opisano praktyczne aspekty umiejętności zawodowych i emocjonalnych pracowników służby cywilnej. Autorzy proponują współpracę sektorów publicznego i prywatnego jako formy partnerstwa w obszarze inwestycyjnym. Wprowadzono do przestrzeni informacyjnej innowacyjnych procesów biznesowych na przedsiębiorstwach przemysłowych.

Słowa kluczowe: zrównoważony rozwój, samowystarczalny rozwój, ekologicznie zarządzanie, marketing, innowacje, bezpieczeństwo ekologiczne, rozwój gospodarczy, polityka, mechanizmy, wskaźniki.

АНОТАЦІЯ (abstract in Ukrainian)

Методологічні та практичні засади забезпечення сталого розвитку: монографія / за заг. ред. д-ра екон. наук, професора О. Прокопенко, к-та екон. наук, доцента Н. Костюченко. – Ruda Śląska: Drukarnia i Studio Graficzne Omnidium, 2015. – 272 p.

У монографії розглядаються теоретичні аспекти та практичні завдання концепції сталого розвитку. Описуються методи застосування принципів сталого розвитку в повсякденному житті. Пропонуються інноваційні підходи для забезпечення сталого розвитку підприємств. Також представлені методи для оцінки прогресу у самодостатньому розвитку окремого регіону чи держави в цілому.

У першій частині монографії «Теоретичні та методологічні завдання сталого розвитку» продемонстровані загальні аспекти концепції сталого розвитку, яка є перспективною як для Європи, так і для України. Автори стверджують про необхідність застосування галузевої програми Ріо Конвенції в державній політиці сталого розвитку. Автори також обґрунтовують роль екологічно орієнтованої інноваційної культури суспільства в даному процесі. Особлива увага приділяється поняттям стійкості підприємства і стійкості персоналу.

У другій частині «Наукові та методологічні завдання забезпечення сталого розвитку» особлива увага приділяється визначенню пріоритетних напрямків забезпечення концепції сталого розвитку. Аналізуються показники сталого розвитку на індивідуальному, інституційному та регіональному рівнях. Описується екологічний менеджмент як інструмент для ефективного використання принципів сталого розвитку. Описується кластерний підхід для оцінки конкурентноздатності регіонів. Автори пропонують стратегії екологічного маркетингу для стійкого розвитку підприємства. Вони також стверджують про необхідність впровадження корпоративної відповідальності за навколишнє середовище. Автори визначають обмеження для сталого розвитку туристических зон і пропонують можливі рішення для Республіки Болгарія.

Третя частина «Наукові та практичні завдання забезпечення сталого розвитку» демонструє комплексний аналіз наукових підходів до питань сталого розвитку. Екологічний маркетинг розглядається як інструмент для просування стабільної підприємницької діяльності (у даному випадку, застосовується спеціальна цінова політика). Підкреслюється значення управлінської політики на головному і місцевих рівнях поряд із залученням суспільства як можливість для соціального та економічного розвитку окремих регіонів Республіки Болгарія. Автори описують механізми екологічної та економічної безпеки на території Чорного моря. Автори обґрунтовують стратегію сталого розвитку басейну річки Горін, підкреслюючи можливості й доцільність оцінки перетворення території басейну річки в інноваційно орієнтований аграрний та індустріальний комплекс. У монографії пропонується комплекс методів дослідження конкурентного маркетингу. Автори пропонують застосувати альтернативний менеджмент у сфері вищої освіти для сталого розвитку.

У четвертій частині «Практичні завдання забезпечення сталого розвитку» пропонуються практичні аспекти для втілення сталого розвитку в реальність. Пропонується процедура маркетингового дослідження нових медіа технологій. У монографії пояснюються практичні аспекти забезпечення кредитної підтримки у фінансуванні інвестиційної діяльності. Описуються практичні аспекти професійних і емоційних навичок державних службовців. Автори пропонують співпрацю державних і приватних секторів як форму партнерства в інвестиційній сфері. Вони знайомлять з інформаційним простором інноваційних бізнес процесів промислових підприємств.

Ключові слова: сталий розвиток, самодостатній розвиток, екологічний менеджмент, маркетинг, інновації, екологічна безпека, економічний розвиток, політика, механізми, показники.

АННОТАЦИЯ (abstract in Russian)

Методологические и практические основы обеспечения устойчивого развития : монография / под общ. ред. д-ра экон. наук, профессора О. Прокопенко, к-та экон. наук, доцента Н. Костюченко. – Ruda Śląska : Drukarnia i Studio Graficzne Omnidium, 2015. – 272 p.

В монографии рассматриваются теоретические аспекты и практические задачи концепции устойчивого развития. Описываются методы применения принципов устойчивого развития в повседневной жизни. Предлагаются инновационные подходы для обеспечения устойчивого развития предприятий. Также представлены методы для оценки прогресса в самодостаточном развитии отдельного региона или государства в целом.

В первой части монографии «Теоретические и методологические задачи устойчивого развития» продемонстрированы общие аспекты концепции устойчивого развития, которая является перспективной как для Европы, так и для Украины. Авторы утверждают о необходимости применения отраслевой программы Рио Конвенции в государственной политике устойчивого развития. Авторы также обосновывают роль экологически ориентированной инновационной культуры общества в данном процессе. Особое внимание уделяется понятиям устойчивости предприятия и устойчивости персонала.

Во второй части «Научные и методологические задачи обеспечения устойчивого развития» особое внимание уделяется определению приоритетных направлений обеспечения концепции устойчивого развития. Анализируются показатели устойчивого развития на индивидуальном, институциональном и региональном уровнях. Описывается экологический менеджмент как инструмент для эффективного использования принципов устойчивого развития. Описывается кластерный подход для оценки конкурентноспособности регионов. Авторы предлагают стратегии экологического маркетинга для устойчивого развития предприятия. Они также утверждают о необходимости внедрения корпоративной ответственности за окружающую среду. Авторы определяют ограничения для устойчивого развития туристических зон и предлагают возможные решения для Республики Болгария.

Третья часть «Научные и практические задачи обеспечения устойчивого развития» демонстрирует комплексный анализ научных подходов к вопросам устойчивого развития. Экологический маркетинг рассматривается как инструмент для продвижения стабильной предпринимательской деятельности (в данном случае, применяется специальная ценовая политика). Подчеркивается значение управленческой политики на главном и местных уровнях наряду с привлечением общества как возможность для социального и экономического развития отдельных регионов Республики Болгария. Авторы описывают механизмы экологической и экономической безопасности на территории Чёрного моря. Авторы обосновывают стратегию устойчивого развития бассейна реки Горин, подчёркивая возможности и целесообразность оценки преобразования территории бассейна реки в инновационно ориентированный аграрный и индустриальный комплекс. В монографии предлагается комплекс методов исследования конкурентного маркетинга. Авторы предлагают применить альтернативный менеджмент в сфере высшего образования для устойчивого развития.

В четвёртой части «Практические задачи обеспечения устойчивого развития» предлагаются практические аспекты для воплощения устойчивого развития в реальность. Предлагается процедура маркетингового исследования новых медиа технологий. В монографии объясняются практические аспекты обеспечения кредитной поддержки в финансировании инвестиционной деятельности. Описываются практические аспекты профессиональных и эмоциональных навыков государственных служащих. Авторы предлагают сотрудничество государственных и частных секторов как форму партнёрства в инвестиционной сфере. Они знакомят с информационным пространством инновационных бизнес процессов промышленных предприятий.

Ключевые слова: устойчивое развитие, самодостаточное развитие, экологический менеджмент, маркетинг, инновации, экологическая безопасность, экономическое развитие, политика, механизмы, показатели.

Scientific edition

Methodological bases and practice of sustainable
development implementation

Metodologiczne i praktyczne zasady zapewnienia
zrównoważonego rozwoju

Методологічні основи та практика забезпечення
сталого розвитку

Методологические основы и практика обеспечения
устойчивого развития

Monograph

Edited by: Dr. of Economics, Prof. O. Prokopenko,
Ph.D in Economics, Assoc. Prof. N. Kostyuchenko

Desktop publishing: A. Kotenko, S. Marochko

Language proof-reading: N. Gavrylenko, N. Klochko

Cover design: K. Kosmider

Photo by: © [Dreaming Andy] / Fotolia

Paper format B5 (170x240 mm). Conv. pr. sheets. 16,04. Conv. ed. sheets. 20,88. Edition 300 ex.

Published by:

University of Economics and Humanities
gen. W. Sikorski st., 4
43-300, Bielsko-Biala, Republic of Poland
tel. 33 816 51 69/70